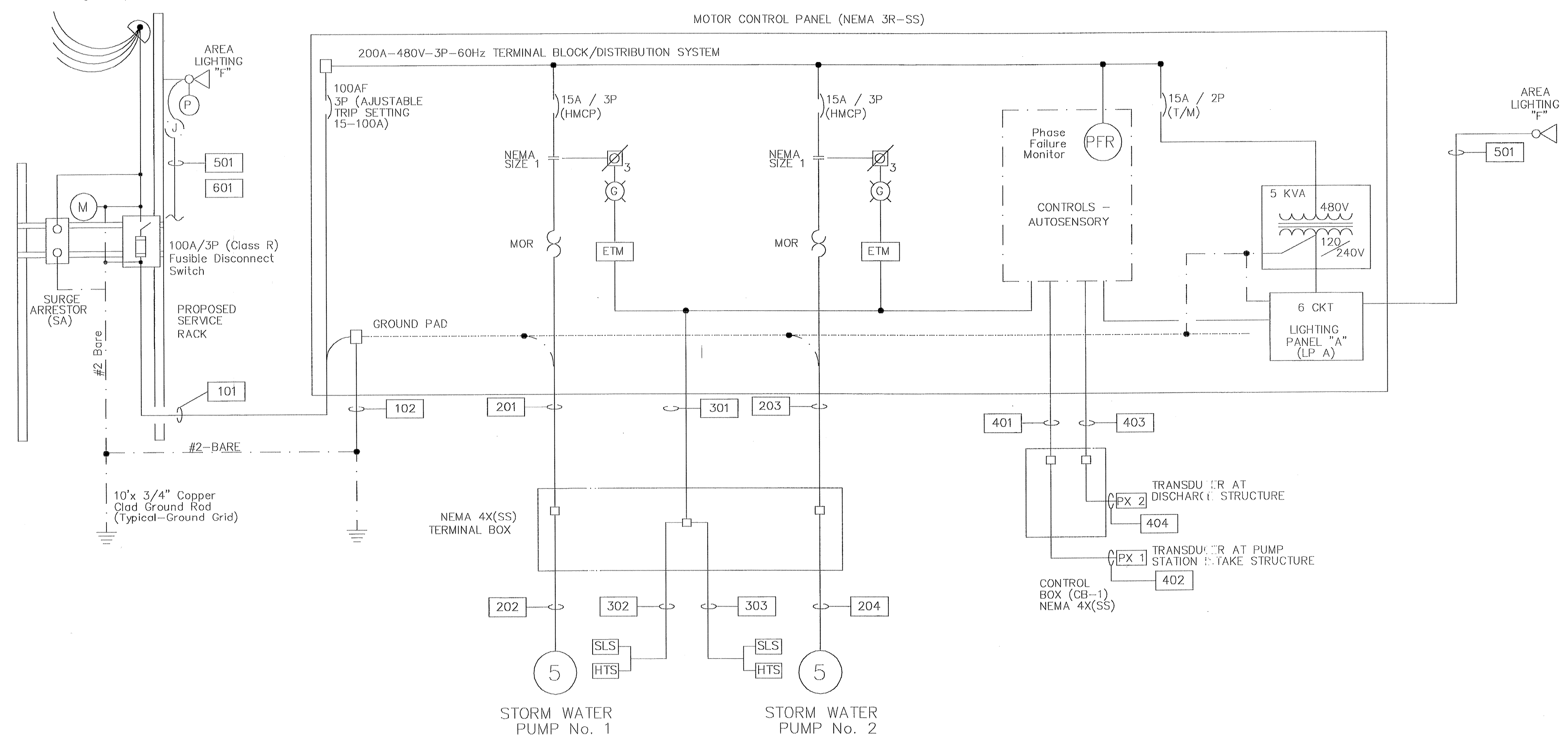


Set Service Entrance per Utility Requirements



MOTOR CONTROL CENTER ONE-LINE DIAGRAM

LOAD ANALYSIS		
ITEM	HP OR KVA	FLA
1) STM WATER PUMP No. 1	5	8
2) STM WATER PUMP No. 2	5	8
3) LIGHTING	5	10
25% LGT. MTR.		2
TOTAL		28

CONDUIT/CONDUCTOR SCHEDULE				
MARK	TO	FROM	CONDUIT	CONDUCTOR
101	MOTOR CONTROL PANEL	SERVICE RACK	1 1/2"	3-6 & #8 (G)
102	MOTOR CONTROL PANEL	GROUND GRID	1"	#2 (G)
201	TERMINAL BOX	MOTOR CONTROL PANEL	1"	3-#12 & #12 (G)
202	STORM WATER PUMP No. 1	TERMINAL BOX	1 1/2" (FLEX.) or MFG. CABLE AS REQ'D	
203	TERMINAL BOX	MOTOR CONTROL PANEL	1 1/2" (FLEX.) or MFG. CABLE	3-#12 & #12 (G)
204	STORM WATER PUMP No. 2	TERMINAL BOX	1 1/2" (FLEX.) or MFG. CABLE AS REQ'D	
301	TERMINAL BOX	MOTOR CONTROL PANEL	3/4"	#12 & #14 AS REQD.
302	STORM WATER PUMP No. 1	TERMINAL BOX	1" (FLEX.) or AS REQ'D	MFG. CABLE
303	STORM WATER PUMP No. 2	TERMINAL BOX	1" (FLEX.) or AS REQ'D	MFG. CABLE
401	CONTROL BOX	MOTOR CONTROL PANEL	3/4"	2-#16 w/ SHIELD
402	PRESSURE XDUCER No. 1	CONTROL BOX	3/4" (FLEX.) or AS REQ'D	MFG. CABLE
403	CONTROL BOX	MOTOR CONTROL PANEL	3/4"	2-#16 w/ SHIELD
404	PRESSURE XDUCER No. 1	CONTROL BOX	3/4" (FLEX.) or AS REQ'D	MFG. CABLE
501	AREA LIGHT - SERVICE RACK	LIGHTING PANEL "A"	3/4"	2-#12 & #12 (G)
601	MOTOR CONTROL PANEL	SERVICE RACK	3/4"	TELEPHONE

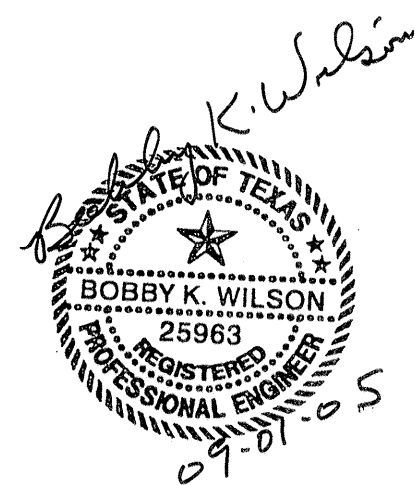
Notes:

- All Components to be General Electric Eaton/Cutler Hammer, or Allen Bradley.
- All wire to be THHN (CU), Minimum #12
- All Breakers to have a minimum interrupting capacity of 22KA
- Conduit to be Rigid Galv. Steel Above Grade, PVC Below Encased in Red Concrete w/ Warning Tape Above, PVC in Chlorine Bldg.
- Chlorine & Process Water Piping to be Schedule 80 PVC w/ High Density Polyurethane Foam, Aluminum Jacketed, Insulation Above Grade.

Electrical Legend

- Circuit Breaker - HMCP (Motor Circuit Protector-65 kA IC) T/M (Thermal Magnetic - 22ka I.C. - Min.)
- Contact
- Motor Starter w/ Solid State (MOR) Overload Protection (MOR-S, Franklin Electric Subtotal)
- Three Phase Motor (Horsepower as Shown)
- Pilot Light (Color as Shown)
- Position Selector Switch (Number & Function as Shown)
- Potential Transformer
- Phase Failure Relay SLD-440-ALE
- Elapsed Time Meter, Simpson (0-99,999)
- Seal Leak Sensor (used with MINI-CAS)
- High Temperature Sensor (used with MINI-CAS)
- Surge Arrester - Innovative Technologies Model Protector FTX-150 (120V-1P & 480V-3P)
- Fuse and Block (Fast Acting - Drive Mfg. Recommended)
- Float Switch
- Limit Switch

BENCH MARK
 BENCHMARK: NATIONAL GEODETIC SURVEY MARKER
 Y1216, 1973 ADJ., ELEV = 125.994
 Y1216, 1978 ADJ., ELEV = 125.406
 Y1216, 1988 ADJ., ELEV = 123.94
 ELEVATIONS ARE BASED ON 1973 ADJUSTMENT



PROVIDENT CONSULTING, INC.
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 HOUSTON, TEXAS 77008
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PRIVATE UTILITY LINES SHOWN

CENTERPOINT ENERGY, ENTEX

SBC VALID FOR ONE YEAR
 APPROVED ONLY FOR UNDERGROUND CONDUIT FACILITIES

CENTERPOINT ENERGY
 APPROVED ONLY FOR CROSSING UNDERGROUND FACILITIES
 UNLESS NOTED VALID AT TIME OF REVIEW ONLY.

VILLAS AT W. LOWBROOK
 HARRIS COUNTY MUD 191
 HARRIS COUNTY, TEXAS

ELECTRICAL ONE-LINE DIAGRAM

WATER	WASTEWATER	TRAFFIC
ST. & BRIDGE	STORMWATER	SWG

FILE NO: _____

DRAWING SCALE: AS SHOWN

VERT: _____ HORZ: _____

SHEET No: 21 OF 24