

# NEWPORT HARBOR HIGH SCHOOL

## POOL EQUIPMENT REPLACEMENT

600 IRVINE AVENUE  
NEWPORT BEACH, CA 92663

CONTRACTOR SCOPE OF WORK:

1. PROVIDING LABOR, MATERIAL, MANAGEMENT AND COORDINATION OF OWN PERSONNEL AND SPECIALTY SUBCONTRACTORS EXPERIENCED IN COMMERCIAL POOL BUILDING TO PRODUCE A FUNCTIONING SWIMMING POOL INCLUDING STRUCTURE AND EQUIPMENT READY FOR PUBLIC USE UPON COMPLETION OF THE WORK. REMOVE EQUIPMENT FROM PREMISES WHEN NO LONGER REQUIRED.
2. REMOVE, DEMOLISH, AND PROPERLY DISCARD ALL EQUIPMENT NOTED ON DRAWINGS, INCLUDING BUT NOT LIMITED TO THE FOLLOWING: FILTRATION SYSTEM, CHEMICAL FEED SYSTEMS, ABOVE GRADE PIPING, PIPING VALVES, FLOW METERS, EMERGENCY EYE WASH STATION, AND DOORS.
3. PROTECT IN PLACE FOR RECONNECTION AND REUSE ALL EQUIPMENT NOTED ON DRAWINGS, INCLUDING BUT NOT LIMITED TO THE FOLLOWING: VARIABLE FREQUENCY DRIVE, ELECTRICAL PANELS, BULK CHEMICAL STORAGE TANK, HEATER, RECIRCULATION PUMP, AND POOL FILL MANIFOLD.
4. PROVIDE UPDATES TO ROOF JOISTS AS SHOWN IN DRAWINGS. INSTALL NEW JOISTS AND CUT AND REINSTALL EXISTING BLOCKINGS AS SHOWN IN DRAWINGS. SEE DRAWINGS FOR WOOD AND HARDWARE SPECIFICATIONS.
5. REMOVE EXISTING DOORS HAS SHOWN ON DRAWINGS. INSTALL NEW DOORS, FRAMES, AND HARDWARE HAS DESCRIBED IN DRAWINGS AND SPECIFICATIONS.
6. PROVIDE PAINT AT BOTH INTERIOR AND EXTERIOR WALL SURFACES OF ACID STORAGE ROOM.
7. PROVIDE POOL FILTRATION SYSTEM AND CIRCULATION SYSTEM, VALVES, PUMPS, CHEMICAL FEED EQUIPMENT, AND ALL ITEMS NECESSARY TO OPERATE THE ENTIRE SYSTEM PROPERLY.
8. PROVIDE SWIMMING POOL AND RELATED EQUIPMENT START-UP AS STATED IN SECTION 131109, INCLUDING MINIMUM CONSECUTIVE 14-DAY TROUBLE-FREE OPERATION. START, TEST, CALIBRATE AND ADJUST ALL MECHANICAL EQUIPMENT, ELECTRICAL EQUIPMENT, RECIRCULATION, CHEMICAL, AND OTHER SUPPLIED SYSTEMS.
9. INSTRUCT THE OWNER'S REPRESENTATIVE IN THE SYSTEMS OPERATION AND MAINTENANCE AS DESCRIBED SPECIFICATION 131109.
10. PROVIDE INITIAL POOL WATER CHEMICAL BALANCING BASED ON RYZNAR STABILIZATION AND THE LANGELEIR INDEX.
11. PROVIDE ALL EQUIPMENT AND SERVICES REQUIRED FOR ERECTION AND DELIVERY ONTO THE PREMISES OF ANY EQUIPMENT OR APPARATUS FURNISHED. REMOVE EQUIPMENT FROM PREMISES WHEN NO LONGER REQUIRED.
12. PROVIDE ALL ELECTRICAL CONDUIT, WIRING, JUNCTION BOXES ETC. TO ALL LOW VOLTAGE POOL EQUIPMENT WITHIN POOL FILTER/CHEMICAL ROOMS PER SECTION 131150. (LOW VOLTAGE IS CONSIDERED LESS THAN 110 V.)
13. COORDINATE FOR ALL REQUIRED BONDING AND GROUNDING OF THE POOL EQUIPMENT.
14. PROVIDE ALL NECESSARY PIPING AND VALVING AS SHOWN ON THE DRAWINGS AND SPECIFIED HEREIN.
15. ASSEMBLE AND INSTALL THE CLEANING AND MAINTENANCE EQUIPMENT FOR THE POOL AS SPECIFIED HEREIN.
16. PROVIDE FOR THE STORAGE OF ALL POOL RELATED EQUIPMENT, MATERIALS AND SYSTEMS. ALL ITEMS ARE THE RESPONSIBILITY OF THE CONTRACTOR UNTIL ACCEPTED BY OWNER.
17. OBTAIN FINAL ACCEPTANCE BY JURISDICTIONAL HEALTH DEPARTMENT(S).

RENOVATION GENERAL NOTES:

1. CONTRACTOR TO NOTIFY THE ENGINEER TO CONDUCT A SITE VISIT ONCE THE DESIGNATED POOL EQUIPMENT HAS BEEN DEMOLISHED AND REMOVED SO THAT THE ENGINEER CAN OBSERVE THE EXISTING CONDITIONS OF THE BUILDING AND SLAB AND PROVIDE DIRECTION REGARDING REPAIRS.
2. ANY SUBSTITUTIONS OR ALTERNATE DETAILS SHALL BE REVIEWED BY THE ENGINEER. SUCH REVIEW WILL REQUIRE A TIME AND MATERIALS CONTRACT TO BE SET UP WITH THE GENERAL CONTRACTOR WITH NO GUARANTEE THAT THE SUBSTITUTION WILL BE ALLOWED.
3. DO NOT SCALE DRAWINGS. CONTACT THE ENGINEER FOR ANY DIMENSIONS NOT SHOWN.
4. CONSTRUCTION SHALL CONFORM TO ALL APPLICABLE CODES & REGULATIONS.

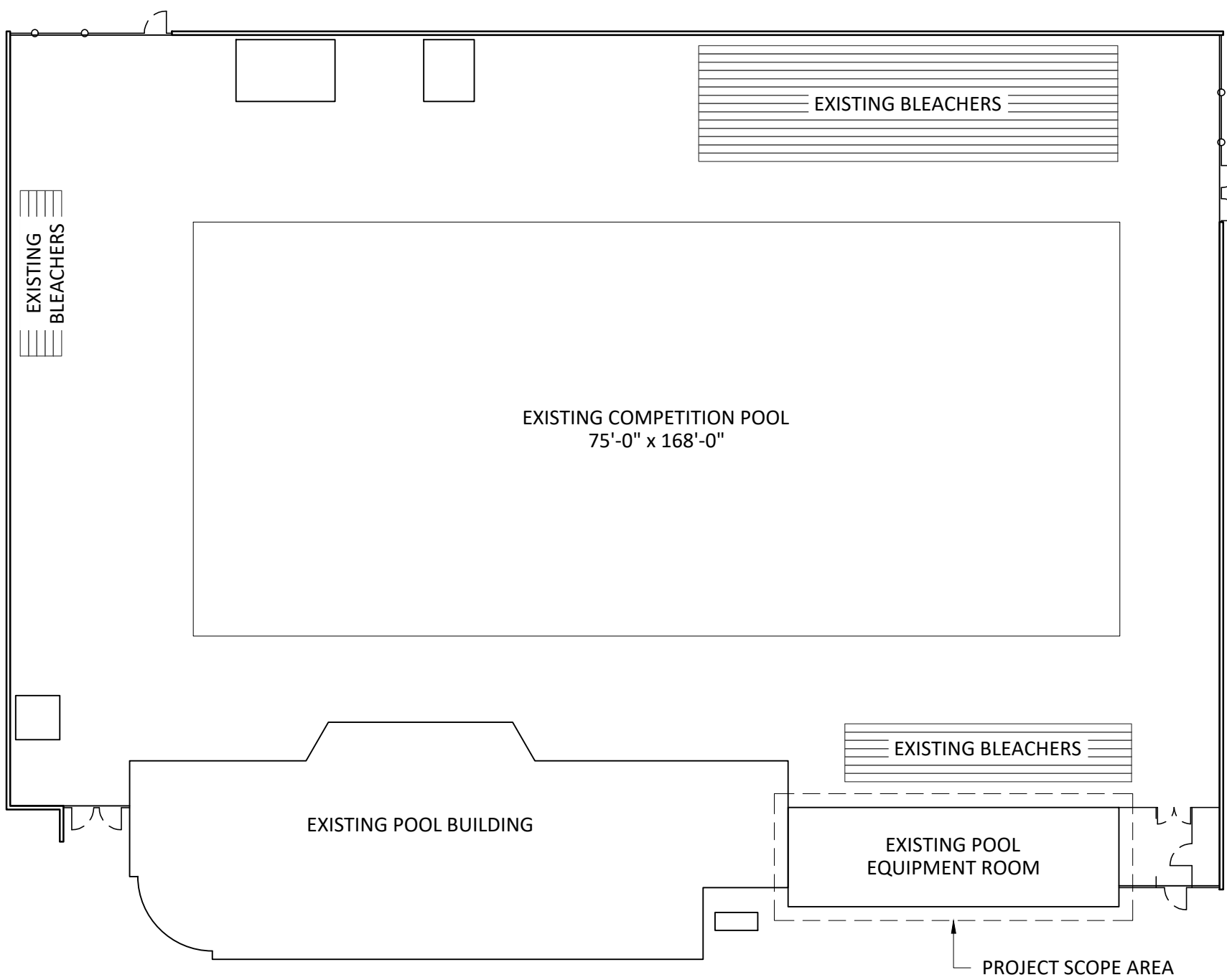
SAFETY NOTES:

1. IT IS THE CONTRACTOR'S RESPONSIBILITY TO COMPLY WITH THE PERTINENT SECTIONS, AS THEY APPLY TO THIS PROJECT, OF THE "CONSTRUCTION SAFETY ORDERS" ISSUED BY THE STATE OF CALIFORNIA LATEST EDITION, AND ALL OSHA REQUIREMENTS.
2. THE OWNER AND THE ENGINEER DO NOT ACCEPT ANY RESPONSIBILITY FOR THE CONTRACTOR'S FAILURE TO COMPLY WITH THESE REQUIREMENTS.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADEQUATE DESIGN AND CONSTRUCTION OF ALL FORMS REQUIRED.

INTERPRETATION OF DRAWINGS & SPECIFICATIONS:

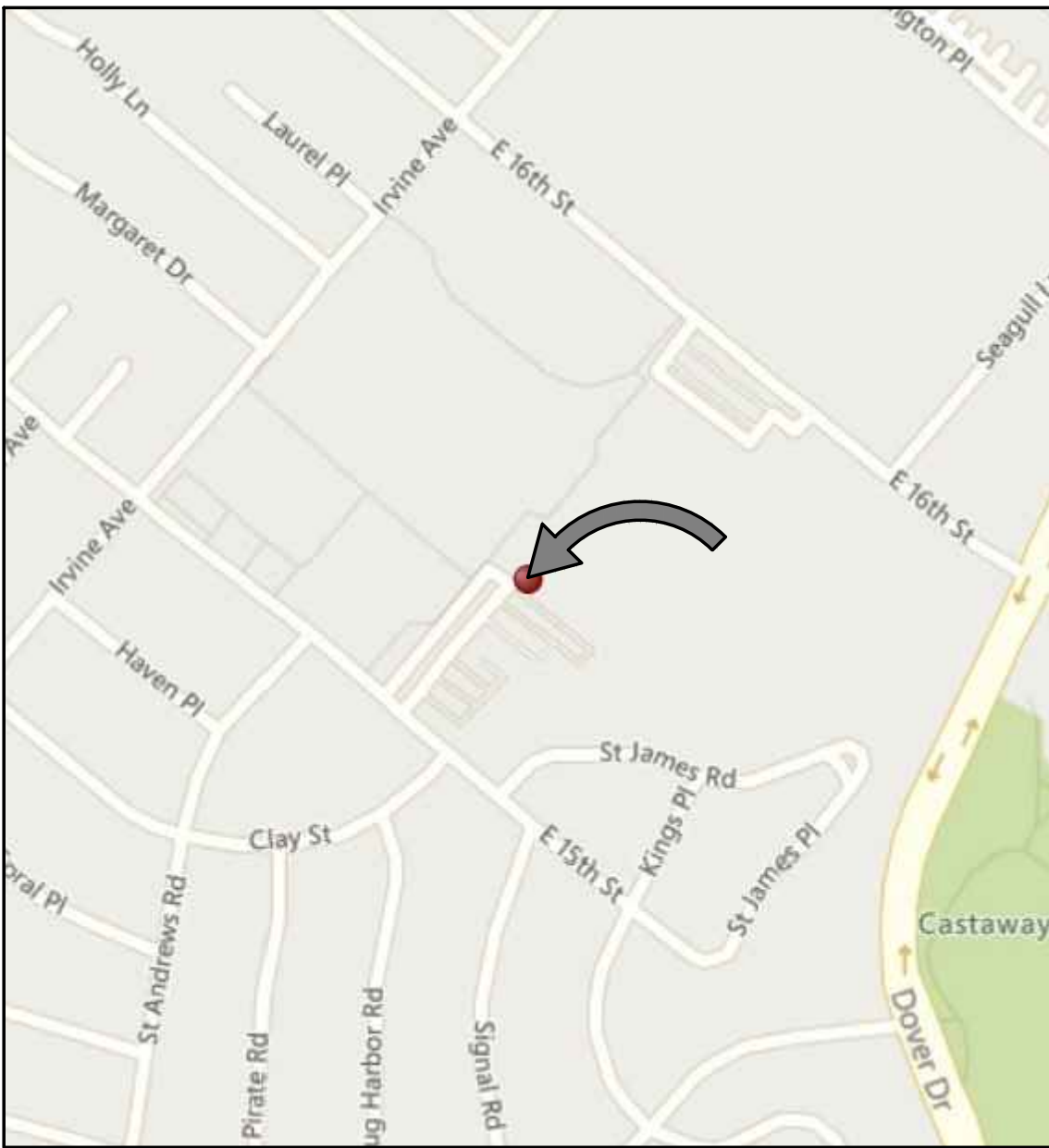
1. FOR CONVENIENCE, SPECIFICATIONS HAVE BEEN PREPARED FOR THIS PROJECT AND ARE ARRANGED IN SEVERAL SECTIONS, BUT SUCH SEPARATION SHALL NOT BE CONSIDERED AS THE LIMITS OF THE WORK REQUIRED OF ANY SEPARATE TRADE. THE TERMS AND CONDITIONS OF SUCH LIMITATIONS ARE WHOLLY BETWEEN THE CONTRACTOR AND ITS SUBCONTRACTORS.
2. IN GENERAL, THE WORKING DETAILS WILL INDICATE DIMENSIONS, POSITION AND TYPE OF CONSTRUCTION. THE SPECIFICATIONS WILL INDICATE QUALITIES AND METHODS. ANY WORK INDICATED ON THE WORKING DETAILS AND NOT MENTIONED IN THE SPECIFICATIONS, OR VICE VERSA, SHALL BE FURNISHED AS THOUGH FULLY SET FORTH IN BOTH. WORK NOT PARTICULARLY DETAILED, MARKED OR SPECIFIED, SHALL BE THE SAME AS SIMILAR PARTS THAT ARE DETAILED, MARKED OR SPECIFIED. IF CONFLICTS OCCUR ON DRAWINGS AND/OR SPECIFICATIONS, THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY.
3. SHOULD A CONFLICT APPEAR IN THE WORKING DETAILS OR SPECIFICATIONS OR IN WORK DONE BY OTHERS AFFECTING THIS WORK, THE CONTRACTOR SHALL PROVIDE WRITTEN NOTICE TO THE ENGINEER IMMEDIATELY PRIOR TO PROCEEDING WITH THAT PORTION OF THE WORK. IF THE CONTRACTOR PROCEEDS WITH THE WORK SO AFFECTED WITHOUT HAVING GIVEN SUCH WRITTEN NOTICE AND WITHOUT RECEIVING THE NECESSARY INSTRUCTIONS IN WRITING FROM THE ENGINEER, THEN THE CONTRACTOR SHALL HAVE NO VALID CLAIM AGAINST THE OWNER FOR THE COST OF PROCEEDING AND SHALL MAKE GOOD ANY RESULTING DAMAGE OR DEFECT. NO VERBAL APPROVAL, DECISION, OR INSTRUCTION SHALL BE VALID OR BE THE BASIS FOR ANY CLAIM AGAINST THE OWNER, ITS OFFICERS, EMPLOYEES OR AGENTS. THE FOREGOING INCLUDES TYPICAL ERRORS IN THE SPECIFICATIONS OR NOTATIONAL ERRORS IN THE WORKING DETAILS WHERE THE INTERPRETATION IS DOUBTFUL OR WHERE THE ERROR IS SUFFICIENTLY APPARENT AS TO PLACE A REASONABLY PRUDENT CONTRACTOR ON NOTICE THAT, SHOULD THEY ELECT TO PROCEED, THEY ARE DOING SO AT THEIR OWN RISK.
4. THE CONTRACTOR SHALL NOTIFY THE ENGINEER WHERE A CONFLICT OR DISCREPANCY OCCURS BETWEEN THE STRUCTURAL DRAWINGS AND ANY OTHER PORTION OF THE CONTRACT DOCUMENTS OR EXISTING FIELD CONDITIONS. SUCH NOTIFICATION SHALL BE GIVEN IN DUE TIME SO AS NOT TO AFFECT THE CONSTRUCTION SCHEDULE. IN CASE OF A CONFLICT BETWEEN STRUCTURAL DRAWINGS AND SPECIFICATIONS THE MORE RESTRICTIVE CONDITION SHALL TAKE PRECEDENCE UNLESS WRITTEN APPROVAL HAS BEEN GIVEN FOR THE LEAST RESTRICTIVE. CONTRACTOR SHALL VERIFY ALL DIMENSIONS WITH PROJECT DOCUMENTS PRIOR TO COMMENCING ANY WORK.

ABBREVIATION LEGEND							
@	AT	DIM	DIMENSION	INSUL	INSULATED	REQ'D	REQUIRED
Ø	DIAMETER	DWG	DRAWING	JB	JUNCTION BOX	REV	REVISION
¢	CENTER LINE	E	EXISTING	LONG	LONGITUDINAL	S.A.D.	SEE ARCHITECTURAL DETAILS
AB	ANCHOR BOLT	E.F.	EACH FACE	MAS	MASONRY	SCH	SCHEDULE
ABV	ABOVE	E.W.	EACH WAY	MAX	MAXIMUM	SHT	SHEET
ADA	ACCESSIBLE	EJ	EXPANSION JOINT	MFG	MANUFACTURER	SIM	SIMILAR
AFF	ABOVE FINISH FLOOR	ELEC	ELECTRICAL	MH	MANHOLE	SQ	SQUARE
AG	ABOVE GRADE	ELEV	ELEVATION	MIN	MINIMUM	SS	STAINLESS STEEL
AGG	AGGREGATE	EMBED	EMBEDMENT	MISC	MISCELLANEOUS	STD	STANDARD
ALT	ALTERNATE	EQ	EQUAL	N	NEW	T&B	TOP AND BOTTOM
AUTO	AUTOMATIC	FD	FLOOR DRAIN	NIC	NOT IN CONTRACT	THK	THICKNESS
BLDG	BUILDING	FE	FIRE EXTINGUISHER	NTS	NOT TO SCALE	TOC	TOP OF CONCRETE
BLKG	BLOCKING	FF	FINISHED FLOOR	O.C.	ON CENTER	TOM	TOP OF MASONRY
BOG	BOTTOM OF GUTTER	FLR	FLOOR	O.C.E.W.	ON CENTER EACH WAY	TOW	TOP OF WALL
CIP	CAST IN PLACE	FTG	FOOTING	PERF	PERFORATED	TRANS	TRANSVERSE
CJ	CONTROL JOINT	GAL	GALVANIZED	PNL	PANEL	TYP	TYPICAL
CLR	CLEARANCE	GPM	GALLONS PER MINUTE	POC	POINT OF CONNECTION	U.N.O.	UNLESS NOTED OTHERWISE
CNTR	CENTER	HB	HOSE BIB	PSF	POUNDS PER SQUARE FEET	VERT	VERTICAL
COL	COLUMN	HDR	HEADER	PSI	POUNDS PER SQUARE INCHES	W/	WITH
CONC	CONCRETE	HORIZ	HORIZONTAL	PVC	POLYVINYL CHLORIDE	W/O	WITHOUT
CONT	CONTINUOUS	HVAC	HEATING, VENTILATION, & AIR CONDITIONING	R	RADIUS	WH	WATER HEATER
DEMO	DEMOLISH	HWH	HOT WATER HEATER	REF	REFERENCE		
DF	DRINKING FOUNTAIN	INCL	INCLUDE	REINF	REINFORCEMENT		



POOL SITE PLAN  
1" = 25'-0"

1



VICINITY MAP

1

SHEET INDEX

SHEET TITLE	SHEET NO.
VICINITY MAP, DESIGN DATA, & SHEET INDEX	SP0.0
POOL EQUIPMENT ROOM DEMO PLAN	SP0.1
POOL EQUIPMENT ROOM RENOVATED PLAN	SP1.0
POOL EQUIPMENT ROOM SECTIONS	SP1.1
POOL EQUIPMENT ROOM DETAILS	SP1.2
POOL EQUIPMENT ROOM DETAILS	SP1.3
POOL EQUIPMENT ROOM DETAILS	SP1.4
EQUIPMENT ROOM RCP & PIPE SUPPORT PLAN	SP2.0
PIPE SUPPORT DETAILS	SP2.1
DOOR & FINISH DETAILS	SP3.0

SWIMMING POOL DESIGN DATA	
SIZE (LENGTH BY WIDTH):	75 FT - 164 FT
DEPTH PROFILE:	4 FT - 12 FT
SURFACE AREA:	12,300 SF
PERIMETER:	479 FT
VOLUME:	658,000 GAL
MAX BATHER LOAD:	615 BATHERS

SWIMMING POOL SYSTEM DESIGN DATA	
TURNOVER RATE:	5.9 HRS
RECIRCULATION RATE:	1850 GPM
FILTER AREA:	123.00 SF
FILTRATION RATE:	15 GPM/SF
BACKWASH FLOW RATE:	263 GPM/SF

DESIGN DATA, SHEET INDEX, & VICINITY MAP

NEWPORT HARBOR HIGH SCHOOL  
POOL EQUIPMENT REPLACEMENT  
600 IRVINE AVENUE  
NEWPORT BEACH, CA 92663

REV	DATE	DESCRIPTION
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STAMP/SEAL:



PROJECT NO:

BE206005

SCALE:

AS NOTED

DATE:

10/16/2020

DRAWN:

E. NUÑEZ

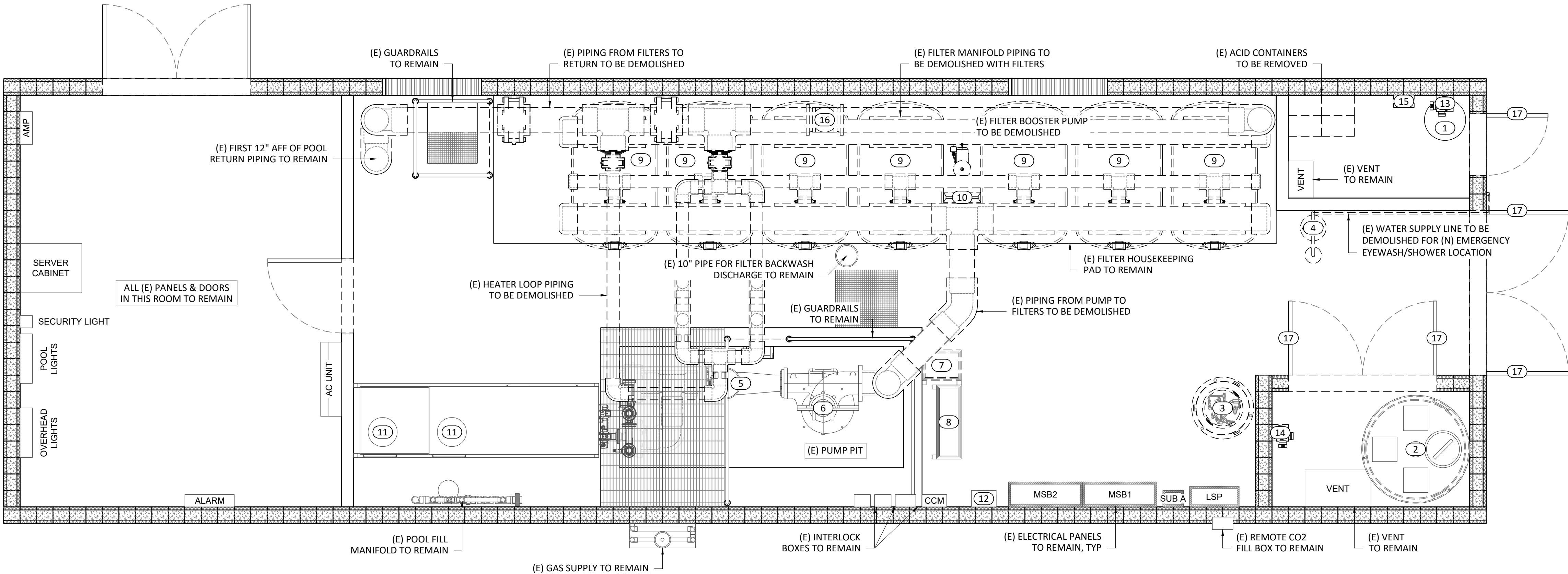
DESIGNED:

B. ROGERS

APPROVED:

J. McCLELLAND

SP0.0



POOL EQUIPMENT ROOM DEMOLITION PLAN

3/8" = 1'-0"

1

DEMOLITION GENERAL NOTES:

1. ALL APPLICABLE STATE & LOCAL LAWS AND CODES SHALL BE FOLLOWED.
2. ANY CHANGES OR UNCLEAR PORTIONS OF THIS PLAN SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE PROCEEDING.
3. ANY CONDITION NOT SPECIFICALLY COVERED IN THIS PLAN OR UNUSUAL CONDITIONS ENCOUNTERED DURING DEMOLITION SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE PROCEEDING.
4. ALL PLAN DIMENSIONS SHALL BE VERIFIED PRIOR TO START OF WORK IN ACCORDANCE WITH AS-BUILT CONDITIONS. ANY DISCREPANCIES SHALL BE REPORTED TO THE ENGINEER.
5. CONTRACTOR SHALL COORDINATE INGRESS/EGRESS AND HAUL ROUTES WITH THE OWNER PRIOR TO START OF WORK.
6. THE CONTRACTOR IS RESPONSIBLE FOR ESTIMATIONS THAT TAKES INTO REGARD DEMOLITION PREPARATION, AS WELL AS MEANS AND METHODS OF DEMOLITION. CONTRACTOR SHALL VISIT THE SITE AS REQUIRED TO ACCOMPLISH THE WORK, AND TO BECOME FAMILIAR WITH SCOPE AND SERVICES OF WORK REQUIRED.
7. PROTECT ALL SITE MECHANICAL, ELECTRICAL, AND PLUMBING DURING DEMOLITION. ITEMS INCLUDED BUT ARE NOT LIMITED TO ANY HOSE BIBBS, DRINKING FOUNTAINS, ELECTRICAL CONDUIT, SITE ELECTRICAL, AND BURIED PIPING NOT CALLED OUT FOR DEMOLITION ON PLANS. CONTRACTOR TO VERIFY WITH AS-BUILTS AND SITE CONDITIONS FOR EXISTING CONDITIONS OF SITE. ENGINEER NOT RESPONSIBLE FOR ANY ITEMS FOUND IN THE FIELD NOT SHOWN ON THIS DOCUMENT.
8. THE CONTRACTOR SHALL COORDINATE DEMOLITION WITH OTHER TRADES AND SHALL PROTECT ALL EXISTING WORK, EQUIPMENT, PIPING, FITTINGS, ETC. THROUGHOUT THE CONTRACT.
9. ALL DEMOLISHED DEBRIS AND EQUIPMENT IS TO BE REMOVED FROM THE SITE AND DISPOSED OF BY THE CONTRACTOR (UNLESS NOTED OTHERWISE) AS REQUIRED BY LOCAL & STATE REGULATIONS.
10. IF SWIMMING POOL IS TO BE DRAINED, IT IS THE CONTRACTOR'S RESPONSIBILITY TO NEUTRALIZE POOL WATER TO 0.0 CHLORINE LEVEL AND DRAIN WITH PERMISSION OF THE LOCAL GOVERNING AGENCIES. CONTRACTOR TO PERFORM CHLORINE NEUTRALIZATION TEST. INSPECTOR OF RECORD TO CONFIRM TEST HAS BEEN COMPLETED PRIOR TO DISCHARGE.

EXISTING POOL EQUIPMENT ROOM DEMOLITION NOTES:

1. REMOVE EXISTING POOL MECHANICAL EQUIPMENT AS REQUIRED TO ACCOMMODATE NEW REPLACEMENT EQUIPMENT PER PLANS.
2. THE EXISTING EQUIPMENT ROOM IS SHOWN FOR CONTRACTOR INFORMATION AND ASSISTANCE. THE CONTRACTOR IS RESPONSIBLE FOR ESTIMATIONS WITH REGARD TO DEMOLITION PREPARATION, AS WELL AS MEANS AND METHODS OF CONSTRUCTION. CONTRACTOR SHALL VISIT THE SITE AS REQUIRED TO ACCOMPLISH THE WORK, AND TO BECOME FAMILIAR WITH SCOPE AND SERVICES OF WORK REQUIRED.
3. CARE IS TO BE TAKEN TO CAP OFF POOL SYSTEMS WHERE NECESSARY.
4. ALL EXISTING POOL PIPE HANGERS TO BE DEMOLISHED AND REPLACED WITH NEW PIPE HANGERS PER CONSTRUCTION SPECIFICATIONS.

DEMOLITION SCHEDULE		
Callout	Description	Notes
1	ACID STORAGE TANK	DEMOLISH
2	CHEMICAL STORAGE TANK	REMAIN & PROTECT
3	CO2 STORAGE TANK	DEMOLISH
4	EMERGENCY EYE WASH STATION	DEMOLISH
5	STRAINER	REMAIN & PROTECT
6	RECIRCULATION PUMP	REMAIN & PROTECT
7	VARIABLE FREQUENCY DRIVE 1	DEMOLISH
8	VARIABLE FREQUENCY DRIVE 2	REMAIN & PROTECT
9	FILTRATION SYSTEM	DEMOLISH
10	BACKWASH CONTROLLER	DEMOLISH
11	HEATING SYSTEM	REMAIN & PROTECT
12	CHEMICAL CONTROLLER	REMAIN & PROTECT
13	ACID METERING PUMP	DEMOLISH
14	CHLORINE METERING PUMP	DEMOLISH
15	CO2 FEEDING SYSTEM	DEMOLISH
16	FLOW METER	DEMOLISH
17	DOORS	DEMOLISH



AQUATIC DESIGN  
POOL ENGINEERING  
STRUCTURAL  
GEOTECHNICAL  
INSPECTIONS & TESTING  
ENVIRONMENTAL  
LABORATORY SERVICES

POOL EQUIPMENT ROOM DEMO PLAN

NEWPORT HARBOR HIGH SCHOOL  
POOL EQUIPMENT REPLACEMENT  
600 IRVINE AVENUE  
NEWPORT BEACH, CA 92663

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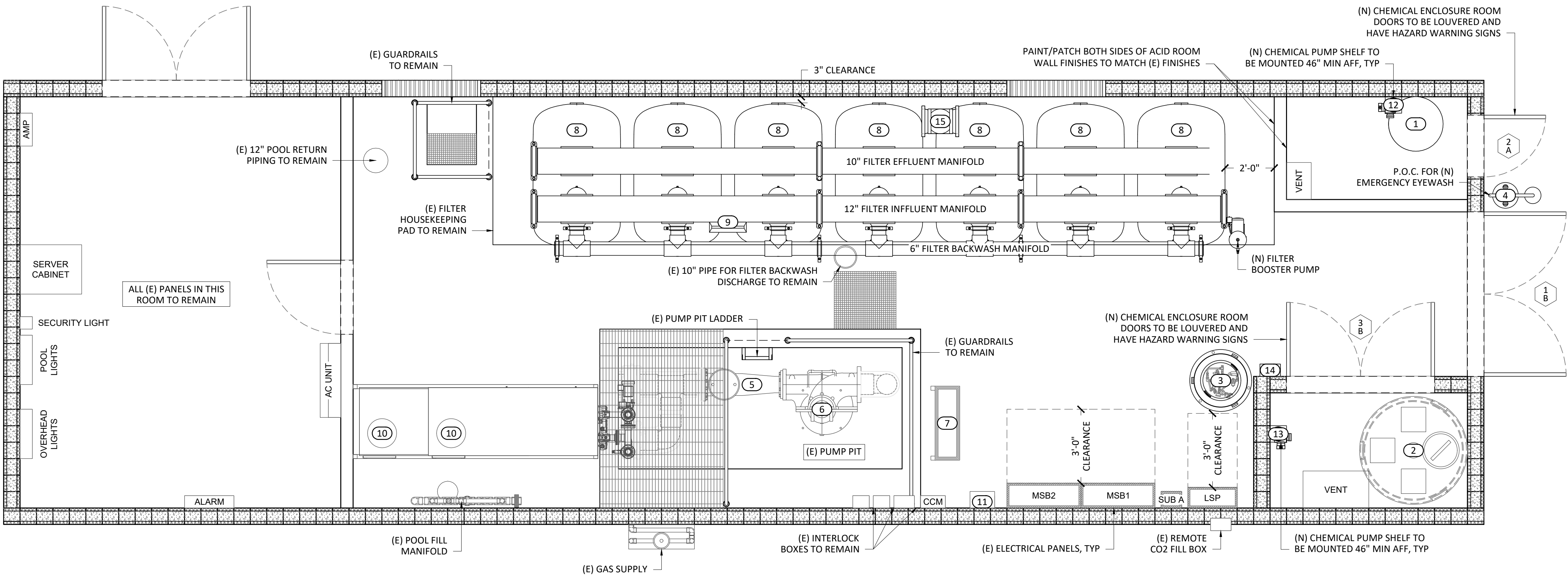
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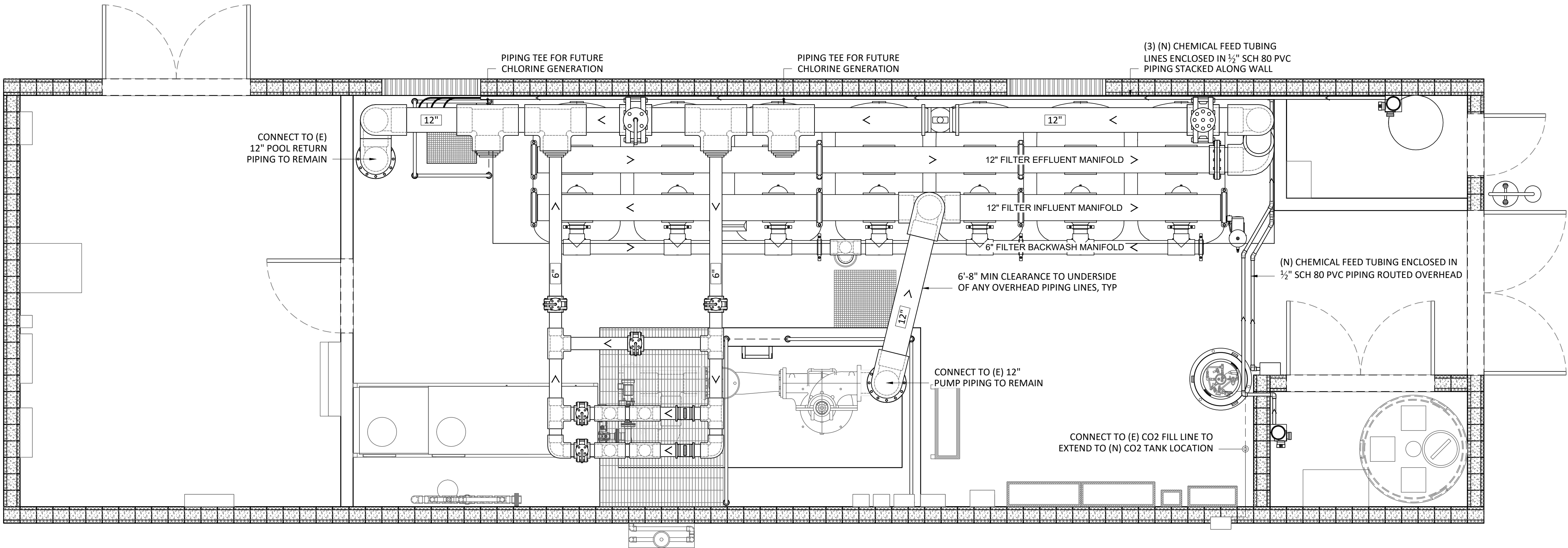
Renewal Date: 07/31/2021

PROJECT NO:	BE206005
SCALE:	AS NOTED
DATE:	10/16/2020
DRAWN:	E. NUÑEZ
DESIGNED:	B. ROGERS
APPROVED:	J. McCLELLAND

SP0.1



POOL EQUIPMENT ROOM RENOVATED PLAN  
3/8" = 1'-0" 1



POOL EQUIPMENT ROOM PIPING PLAN  
3/8" = 1'-0" 2

- EQUIPMENT ROOM NOTES:**
1. ALL PIPING TO BE SCHEDULE 80 PVC UNLESS NOTED OTHERWISE.
  2. SEE PIPING PLANS TO VERIFY PIPE SIZES AND FOR CONTINUATION OF PIPING. REPORT DISCREPANCIES IMMEDIATELY TO THE ARCHITECT / ENGINEER.
  3. POOL CONTRACTOR SHALL IDENTIFY ALL PIPING AND VALVES BY COLOR CODING OR LABELS AND DIRECTION OF FLOW ARROWS IN ACCORDANCE WITH LOCAL HEALTH CODE.
  4. PIPING AT HEATER TO BE CPVC UNLESS NOTED OTHERWISE.
  5. REDUCER FITTINGS SHALL BE USED WHERE PIPE SIZES CHANGE.
  6. NO COMMON PIPING OR FITTING ON THE SUCTION SIDE OF THE PUMP IS TO BE SMALLER THAN THE LARGEST SINGLE ELEMENT CONNECTED. DOWNSIZING AND UPSIZING IS TO BE DONE AT THE THROATS OF THE PUMP PORTS.
  7. ALL VALVES SHALL HAVE A MINIMUM PRESSURE RATING OF 125 PSI.
  8. ALL TRADES SHALL KEEP SPACE ABOVE THE FILTRATION AND CHEMICAL EQUIPMENT CLEAR FOR SERVICING.
  9. FILTRATION AND CHEMICAL EQUIPMENT SHALL BE NATIONAL SANITATION FOUNDATION (NSF) APPROVED.
  10. FILTER SHALL BE PROVIDED WITH THE FOLLOWING APPROPRIATELY LOCATED ACCESSORIES: INFLUENT AND EFFLUENT PRESSURE GAUGES, BACKWASH SIGHT GLASS ON WASTED DISCHARGE LINE, FILTER BACKWASH VALVE, AIR RELIEF VALVE AT THE HIGH POINT OF THE FILTER SYSTEM, AND A VALVED TANK DRAIN. RELIEF VALVES SHALL BE INSTALLED.
  11. FLOWMETER SHALL BE PROVIDED IN THE INLET RETURN LINE AFTER FILTER AND BEFORE CHEMICAL INJECTION. INSTALL ON A STRAIGHT LENGTH OF PIPE AT A DISTANCE OF AT LEAST 10 PIPE DIAMETERS DOWNSTREAM AND 4 PIPE DIAMETERS UPSTREAM FROM ANY VALVE, ELBOW OR OTHER SOURCE OF TURBULENCE OR PER MANUFACTURER'S SPECIFICATIONS. PROVIDE CHECK VALVE IN RETURN LINE UPSTREAM OF CHEMICAL INJECTION TO PROTECT HEATER, FILTER, PUMP AND OTHER EQUIPMENT.
  12. INSTALL INTERLOCK BETWEEN CIRCULATION PUMP(S) AND HEATER(S); FLOW SWITCHES; AND BYPASS LOOPS AS REQUIRED BY HEATER MANUFACTURER.
  13. ALL PIPING TO BE SUPPORTED AS REQUIRED WITH EITHER HANGERS (ALONG CEILINGS), ANCHORS (ALONG WALLS), OR SUPPORTS (ALONG FLOOR) PER CONTRACTOR. MIN 6'-8" CLEARANCE TO UNDERSIDE OF ANY OVERHEAD PLUMBING LINES.
  14. ANY WALL-MOUNTED EQUIPMENT AND CONTROL PANELS SHALL BE MOUNTED A MINIMUM 46" ABOVE FINISHED FLOOR.
  15. HOUSEKEEPING PADS: ALL CIRCULATION PUMPS, HEATERS, AND FILTERS TO BE ANCHORED PER MANUFACTURER'S RECOMMENDATIONS ON A HOUSEKEEPING PAD THAT IS 4" MINIMUM ABOVE FINISHED FLOOR.
  16. BACKWASH CATCH BASIN SURFACES SHALL BE WATERPROOFED.
  17. THE FOLLOWING INFORMATION SHALL BE LAMINATED AND POSTED IN THE POOL MECHANICAL ROOM: BACKWASH PROCEDURES, POOL FILLING AND DRAINING, VALVE REFERENCE CHART, EQUIPMENT ROOM PLAN, POOL PIPING SCHEMATICS, AND POOL SYSTEMS SCHEMATICS.
  18. PIPING NOT SHOWN TO SCALE, SHOWN TO INDICATE WORK TO BE DONE AND SUGGESTED ROUTING RATHER THAN EXACT ROUTING & LOCATION. MAKE USE OF ALL DATA IN CONTRACT DOCUMENTS, VERIFY AGAINST DEVELOPED FIELD CONDITIONS, & INSTALL WORK IN AN ORDERLY ARRANGEMENT IN A MANNER TO OVERCOME STRUCTURAL, MECHANICAL & ELECTRICAL INTERFERENCE.
  19. PIPING VALVES NOT SHOWN, SEE CIRCULATION SCHEMATICS FOR VALVES REQUIRED, LOCATIONS, AND SPECIFICATIONS.
  20. PUMP SHALL INTERLOCK WITH HEATING CONTROL SYSTEM. DISRUPTION OF POWER TO CIRCULATION PUMP SHALL SHUT OFF HEATING.
  21. PUMP SHALL INTERLOCK WITH CHEMICAL CONTROLLER. DISRUPTION OF POWER TO CIRCULATION PUMP SHALL SHUT OFF CHEMICAL FEED SYSTEMS VIA CHEMICAL CONTROLLER.

SWIMMING POOL EQUIPMENT		
CALL OUT	EQUIPMENT	MODEL/DESCRIPTION
1	ACID STORAGE	(N) CHEMTAINER TC2738DC, DOUBLE WALLED BULK STORAGE TANK, 50 GALLON CAPACITY, 26" DIAMETER, 38" HEIGHT W/ PROMINENT ACID FUME SCRUBBER
2	CHLORINE STORAGE	(E) CHEMTAINER TC5971DC, DOUBLE WALLED BULK STORAGE TANK, 500 GALLON CAPACITY, 55" DIAMETER, 70" HEIGHT
3	CO2 STORAGE	(N) TAYLOR WHARTON NOVO-600, CO2 CRYOGENIC STORAGE TANK, 594 LB CAPACITY, 22" DIAMETER, EPOXY COATED, W/ (E) REMOTE FILL STATION
4	EMERGENCY EYEWASH	(N) HAWS COMBINATION SHOWER AND EYE WASH UNIT, MODEL 8336, CORROSION RESISTANT, EPOXY FINISHED SCH80 PVC CONSTRUCTION
5	STRAINER	(E) TO REMAIN
6	CIRCULATION PUMP	(E) PACO 20-80155-150101, FRAME 364TCZ, 40 HP, 230V, 3 PH, 1190 RPM
7	VARIABLE FREQUENCY DRIVE	(E) SMART PUMP CONTROL SYSTEM (SPCS) SPCS040BC2, 40 HP, 230V
8	FILTRATION	(N) EKO3 42175-1206-T-7, 42" DIAMETER X 74", 123 SQ FT FILTER AREA, 6" BACKWASH VALVE, 263 GPM BACKWASH FLOW RATE PER TANK, W/ PRESSURE AMPLIFICATION SYSTEM
9	BACKWASH CONTROL	(N) BECSYS BECS7, AUTOMATIC BACKWASH CONTROL
10	HEATING	(E) TWO (2) LOCHINVAR COPPERFIN II CPN1802, 3,600,000 BTUH INPUT, 85% EFFICIENCY
11	CHEMICAL CONTROLLER	(E) BECSYS BECS5
12	ACID METERING PUMP SYSTEM	(N) LMI SD43-88P-KSI, G-SERIES, ADJUSTABLE OUTPUT, 150 PSI, MAXIMUM 288 GALLONS ACID PER DAY
13	CHLORINE METERING PUMP SYSTEM	(N) LMI SD43-88P-KSI, G-SERIES, ADJUSTABLE OUTPUT, 150 PSI, MAXIMUM 288 GALLONS CHLORINE PER DAY
14	CO2 FEEDER	(N) EKO3 CO2 CONTROLLER
15	FLOW METER	(N) GF SIGNET 2551 INSERTION MAGMETER, 12" IRON SADDLE
ALL EQUIPMENT NOTED ARE BASIS OF DESIGN & DESIGNATE MINIMUM PERFORMANCE STANDARDS. EQUIVALENT PRODUCTS MAY BE USED PROVIDED THEY ARE SUBMITTED TO ENGINEER OF RECORD FOR APPROVAL.		



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AQUATIC DESIGN  
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STRUCTURAL  
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INSPECTIONS & TESTING  
ENVIRONMENTAL  
LABORATORY SERVICES

POOL EQUIPMENT ROOM RENOVATED PLAN

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POOL EQUIPMENT REPLACEMENT  
600 IRVINE AVENUE  
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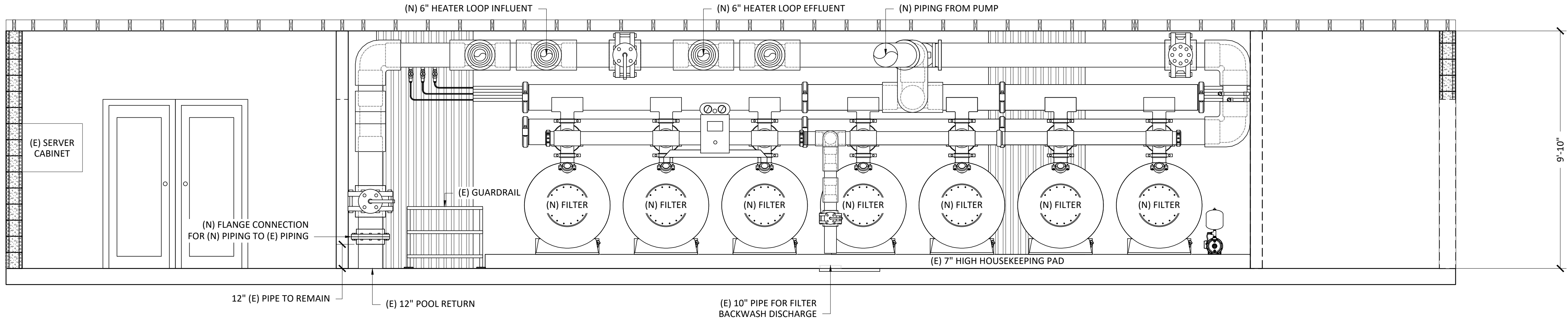
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Renewal Date: 07/31/2021

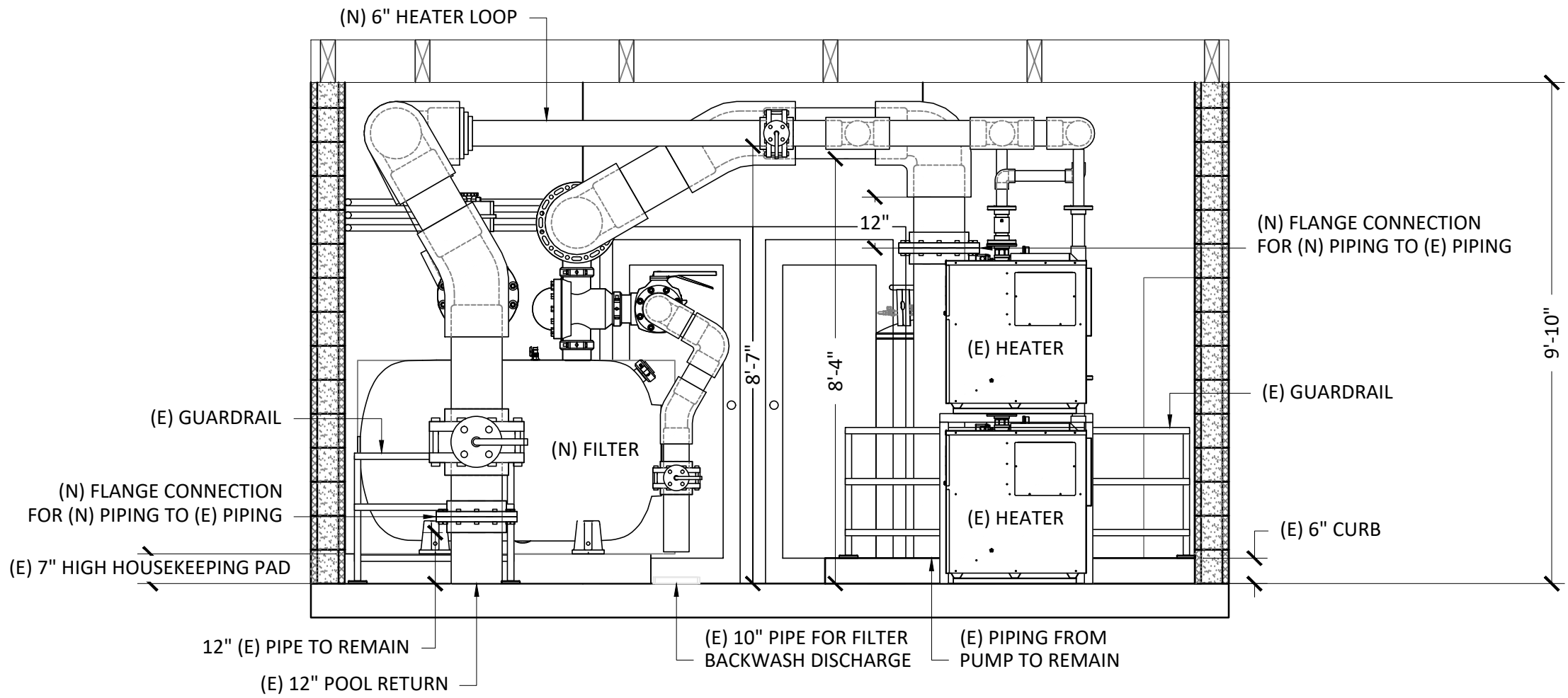
PROJECT NO:	BE206005
SCALE:	AS NOTED
DATE:	10/16/2020
DRAWN:	E. NUÑEZ
DESIGNED:	B. ROGERS
APPROVED:	J. McCLELLAND

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POOL EQUIPMENT ROOM SECTION  
3/8" = 1'-0"

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POOL EQUIPMENT ROOM SECTION  
3/8" = 1'-0"

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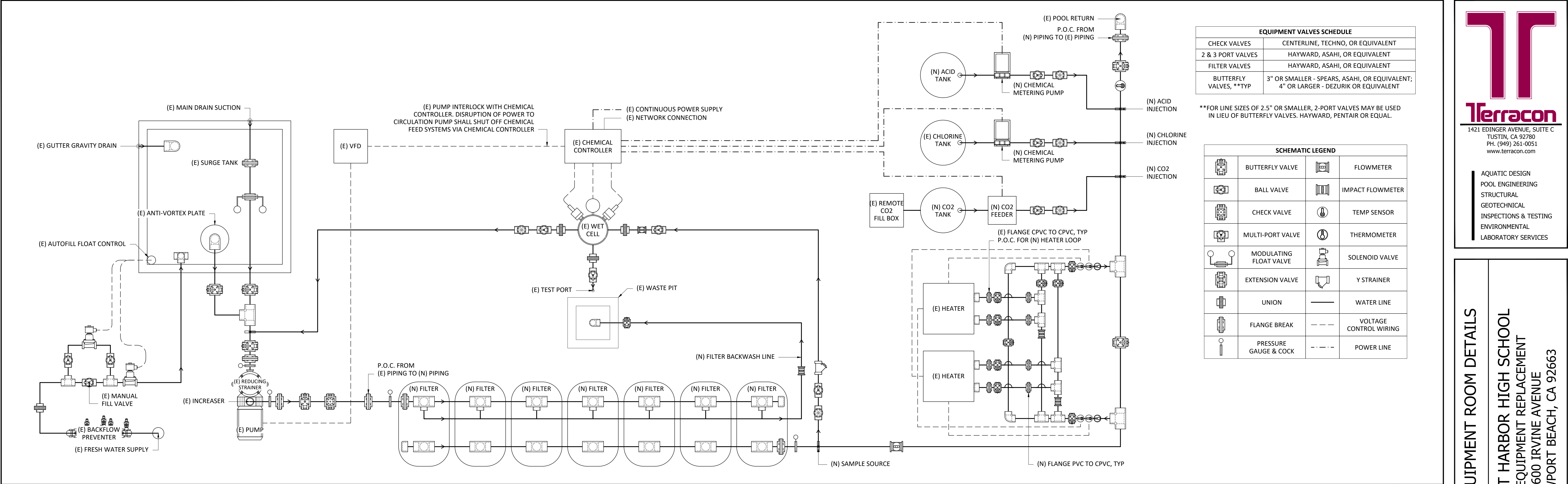
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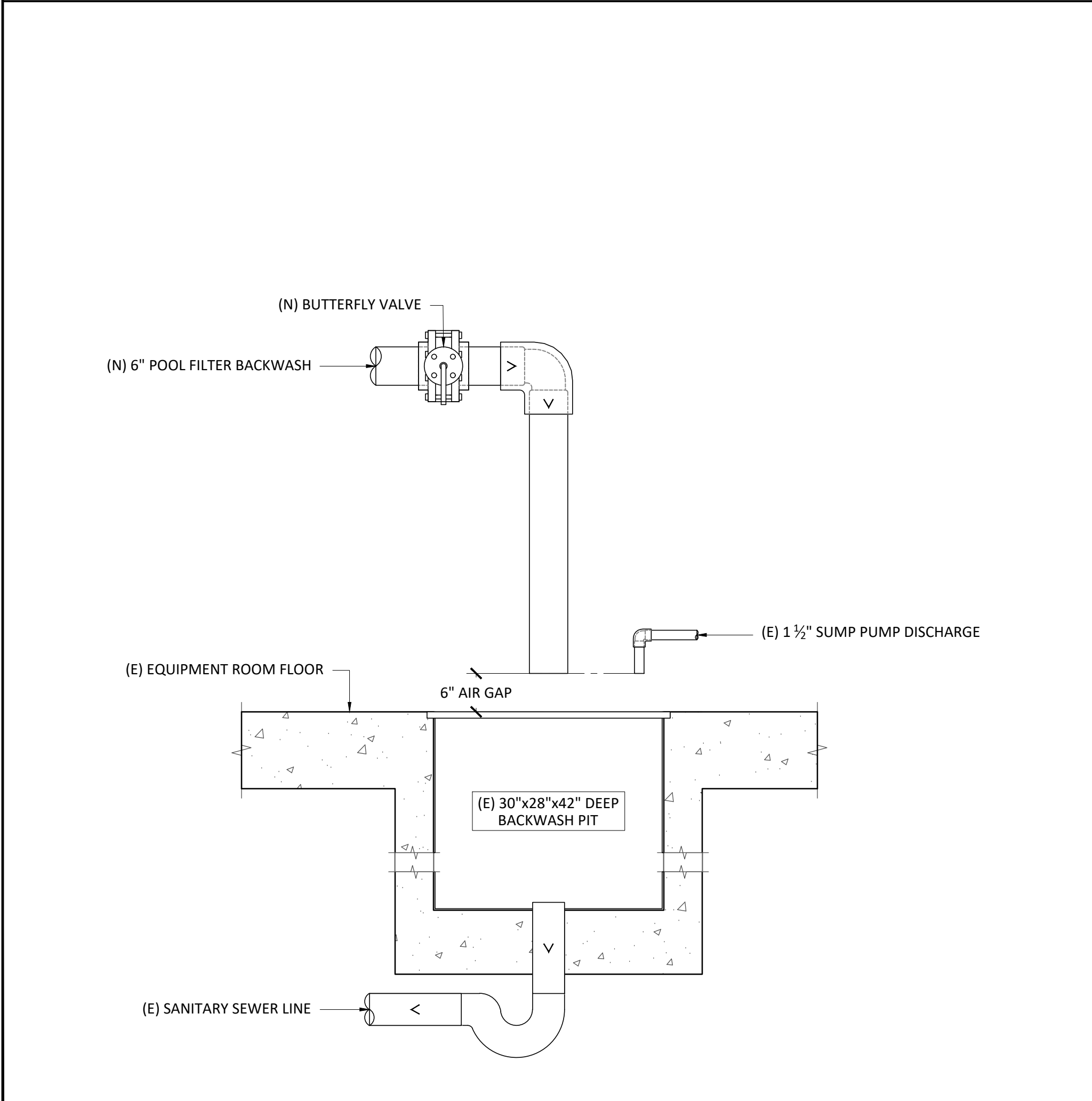
PROJECT NO:	BE206005
SCALE:	AS NOTED
DATE:	10/16/2020
DRAWN:	E. NUÑEZ
DESIGNED:	B. ROGERS
APPROVED:	J. McCLELLAND

SP1.1

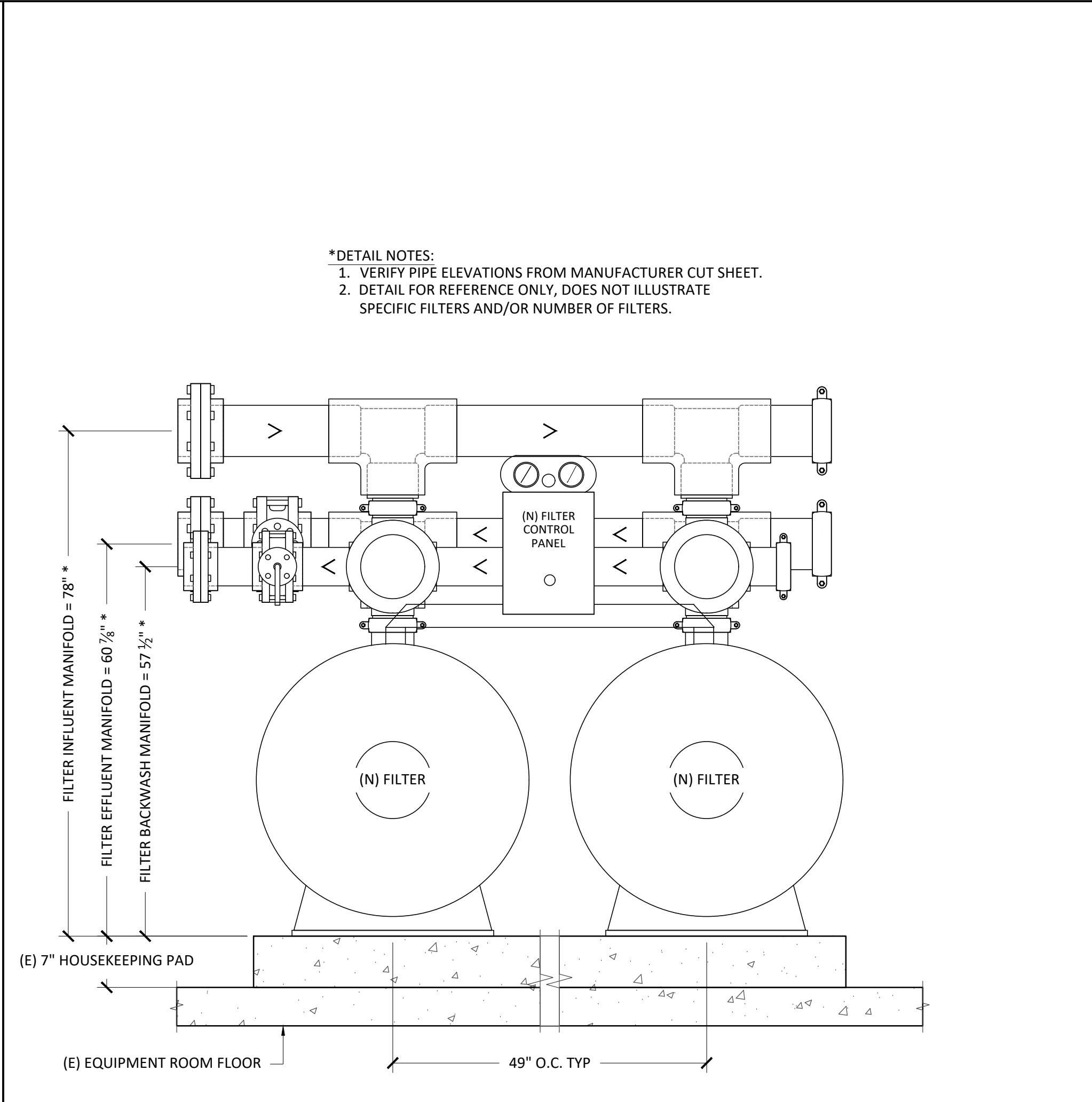


POOL CIRCULATION SYSTEM SCHEMATIC  
N.T.S.

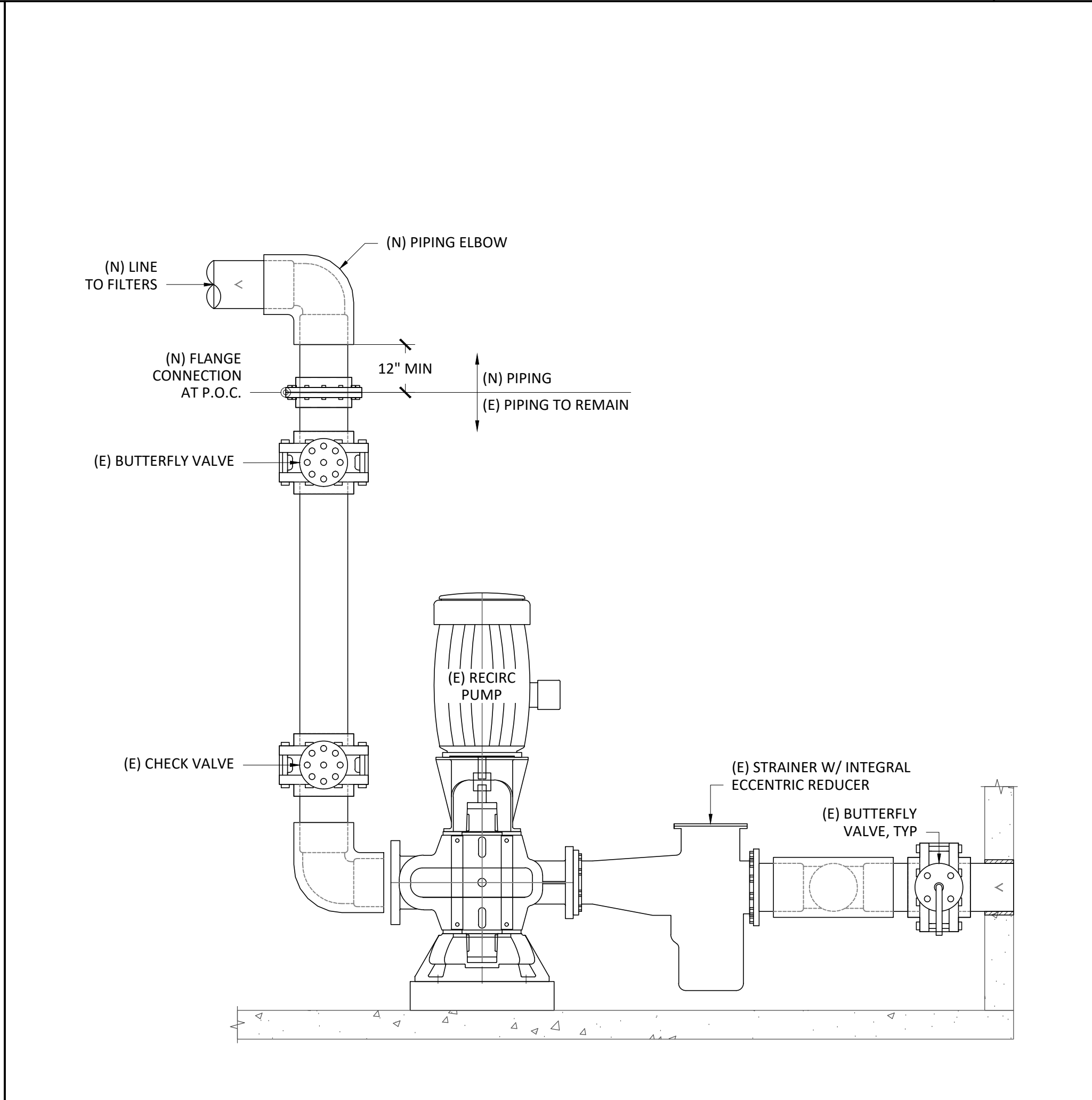
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2

**Terracon**  
1421 EDINGER AVENUE, SUITE C  
TUSTIN, CA 92780  
PH. (949) 261-0051  
www.terracon.com

AQUATIC DESIGN  
POOL ENGINEERING  
STRUCTURAL  
GEOTECHNICAL  
INSPECTIONS & TESTING  
ENVIRONMENTAL  
LABORATORY SERVICES

**POOL EQUIPMENT ROOM DETAILS**

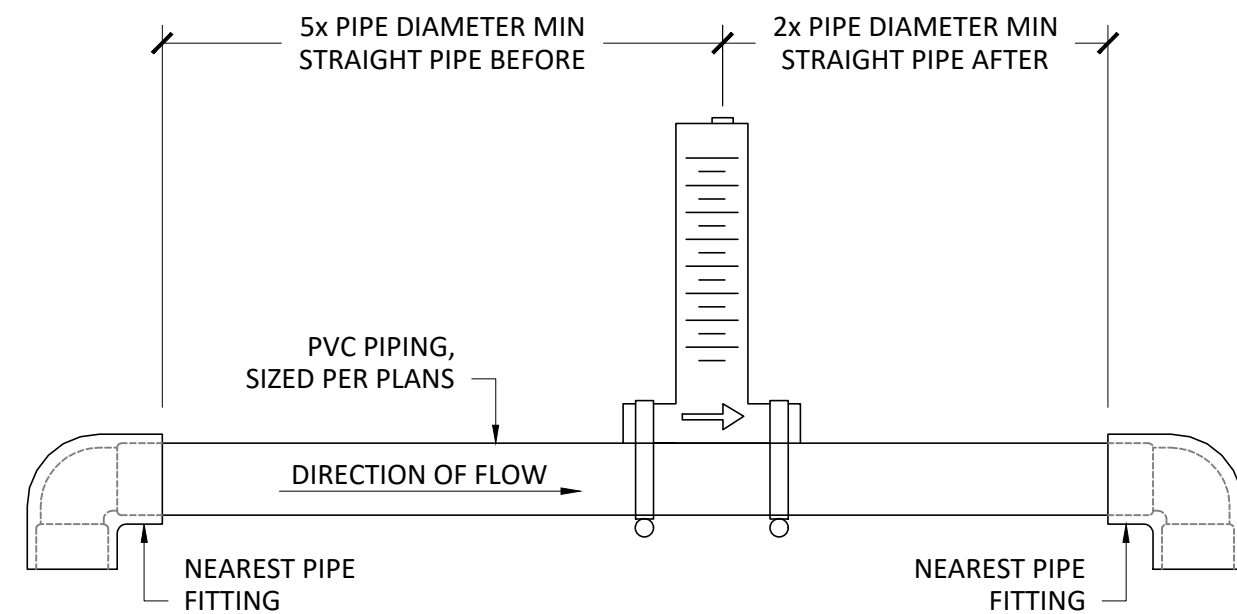
**NEWPORT HARBOR HIGH SCHOOL**  
**POOL EQUIPMENT REPLACEMENT**  
600 IRVINE AVENUE  
NEWPORT BEACH, CA 92663

REV	DATE	DESCRIPTION
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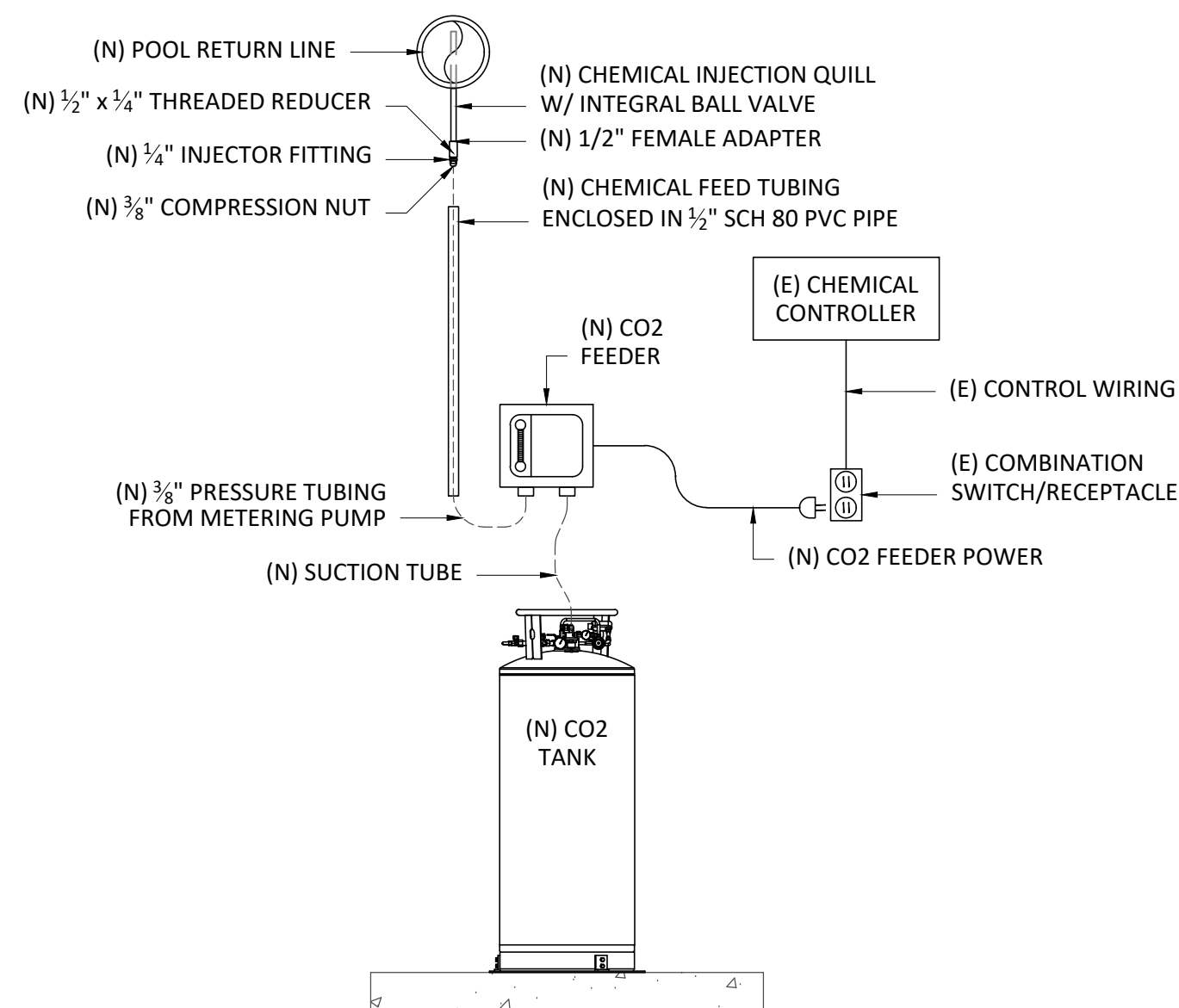
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PROJECT NO:	BE206005
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DRAWN:	E. NUÑEZ
DESIGNED:	B. ROGERS
APPROVED:	J. McCLELLAND

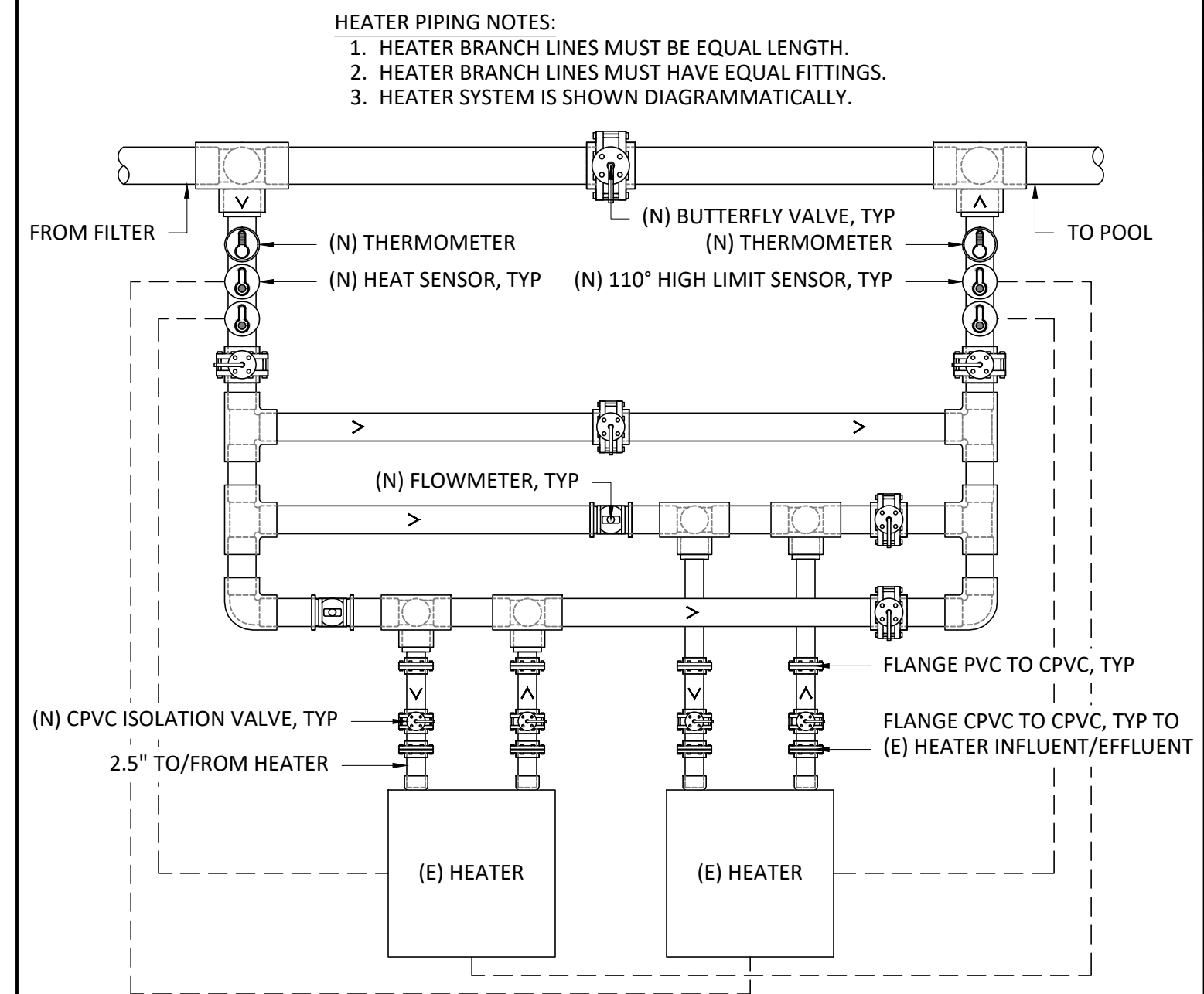
**SP1.2**



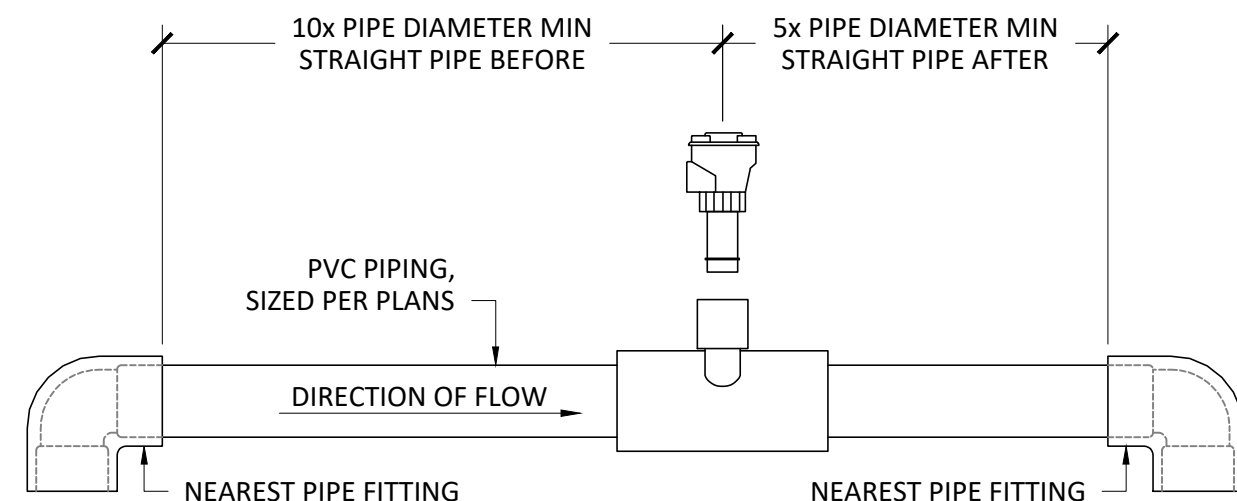
(N) IMPACT FLOW METER  
N.T.S.



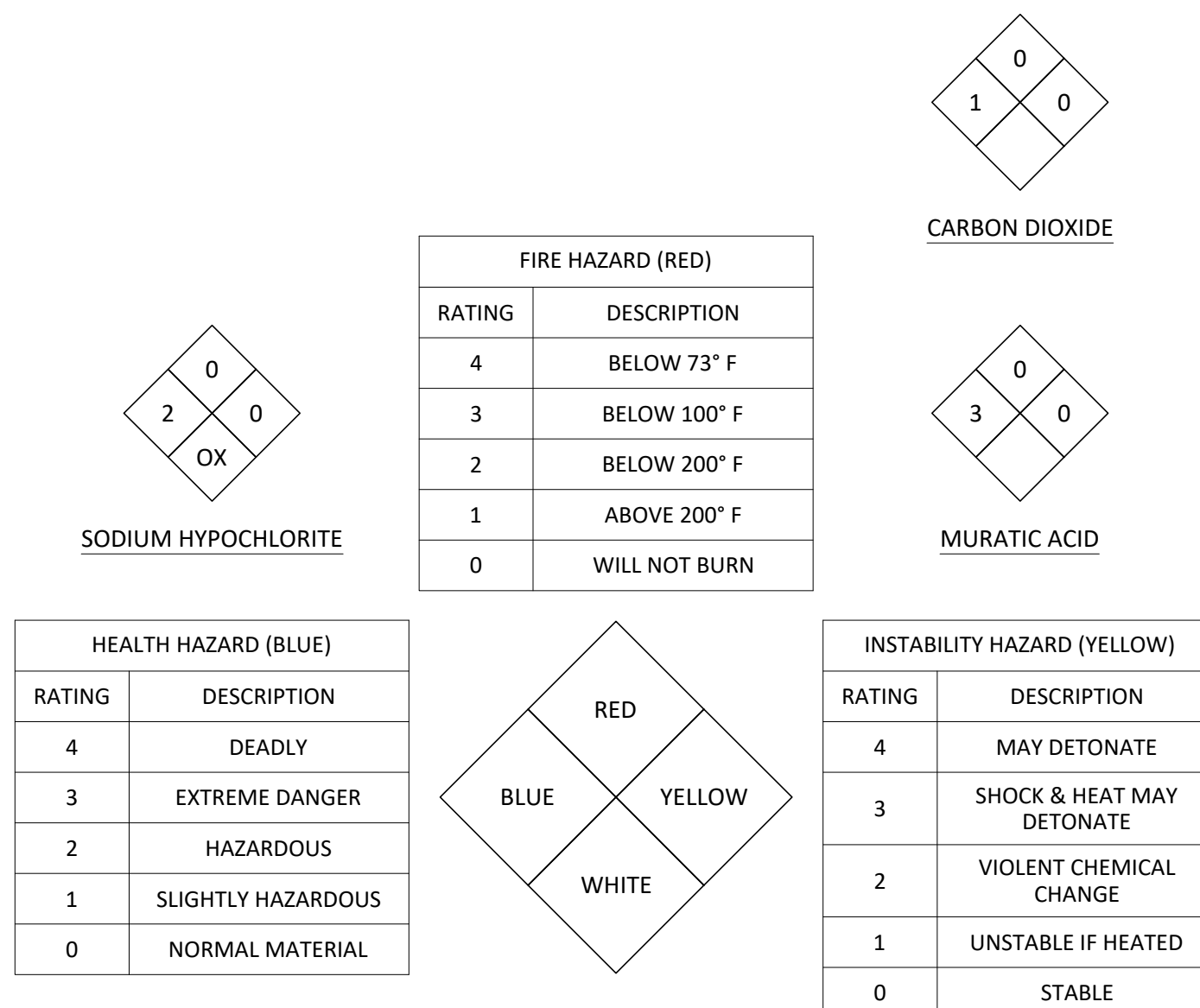
(N) CO2 FEED INJECTION  
N.T.S.



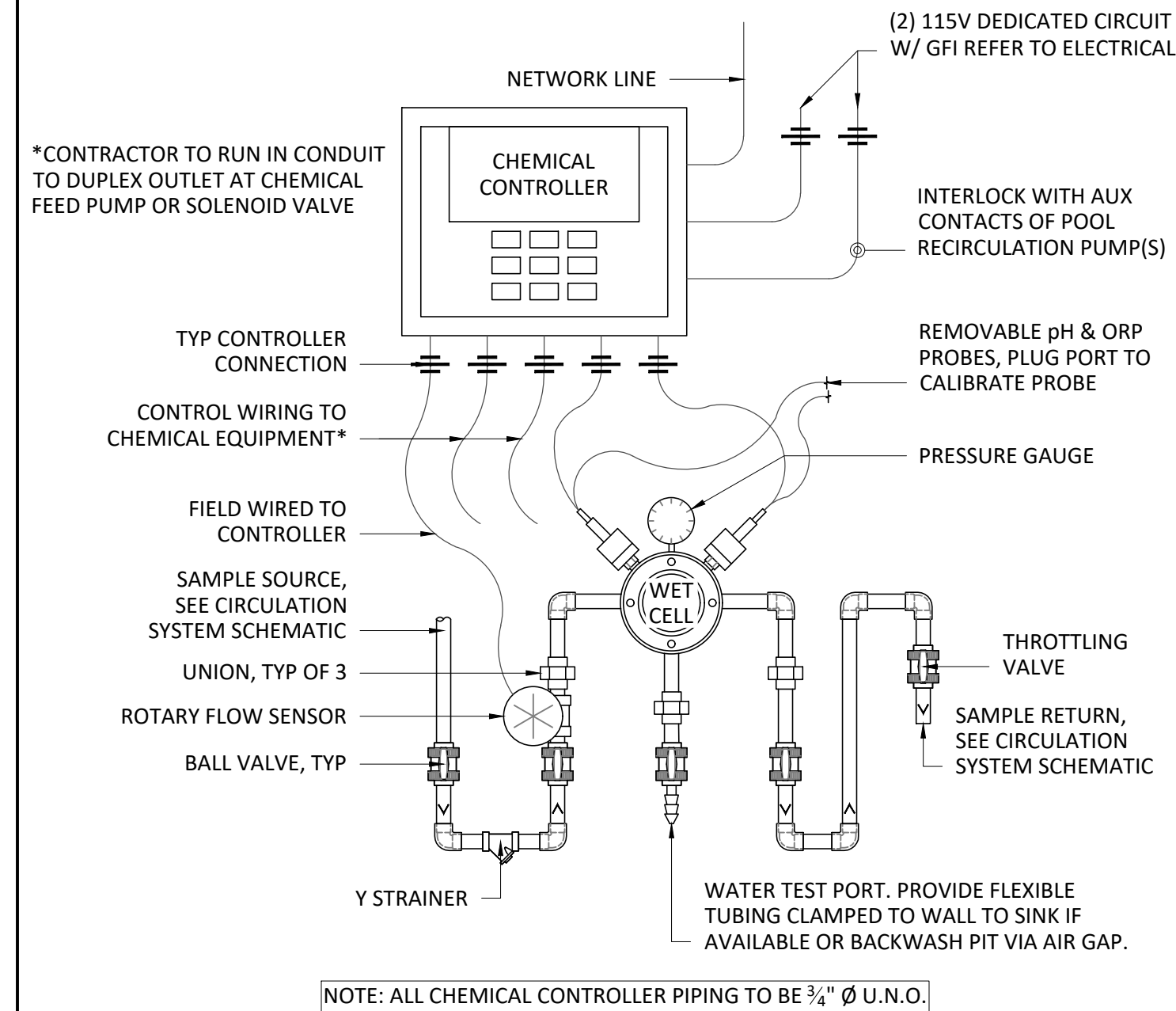
(N) DUAL HEATER PIPING SCHEMATIC  
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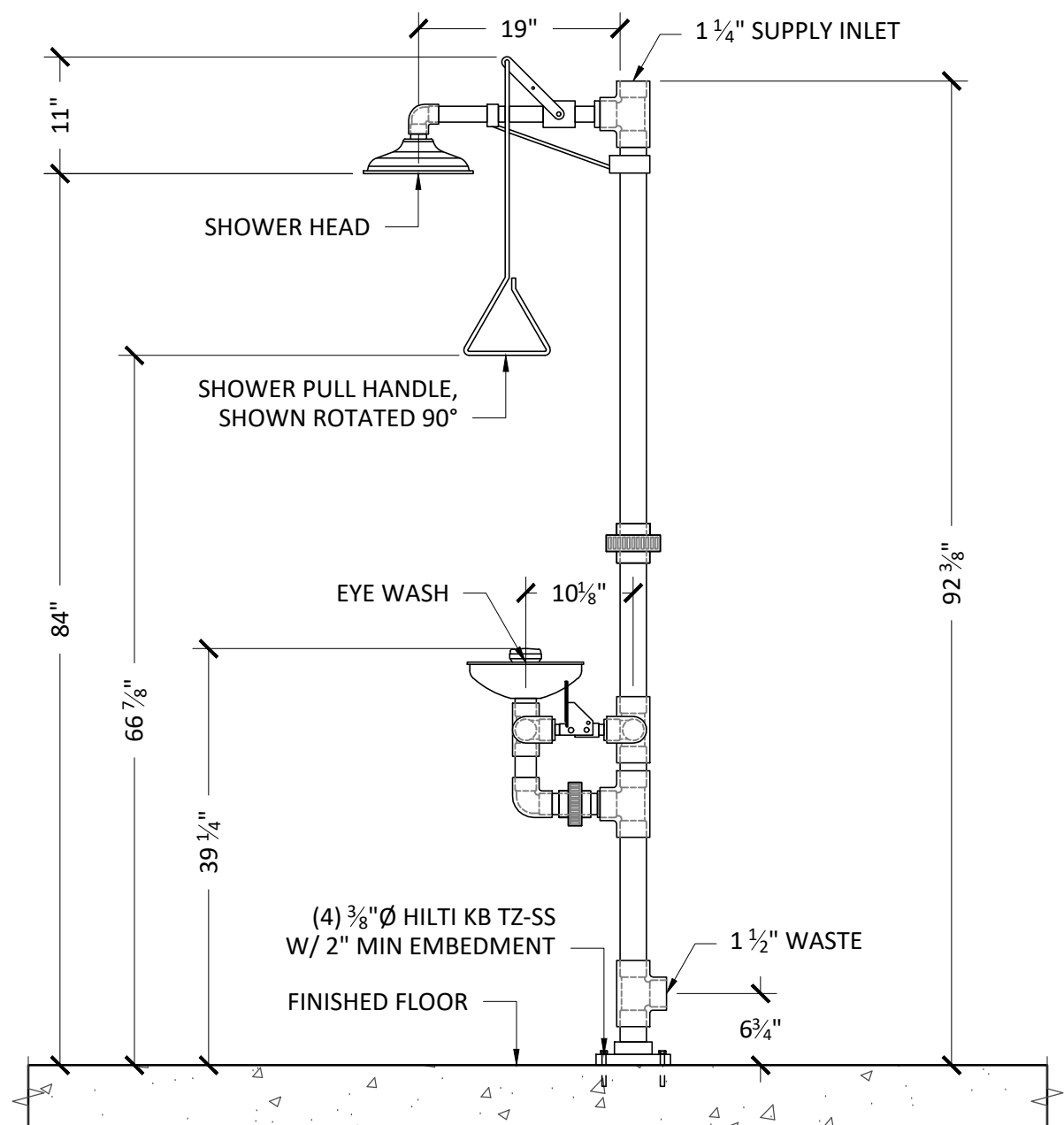
(N) FLOW METER SENSOR  
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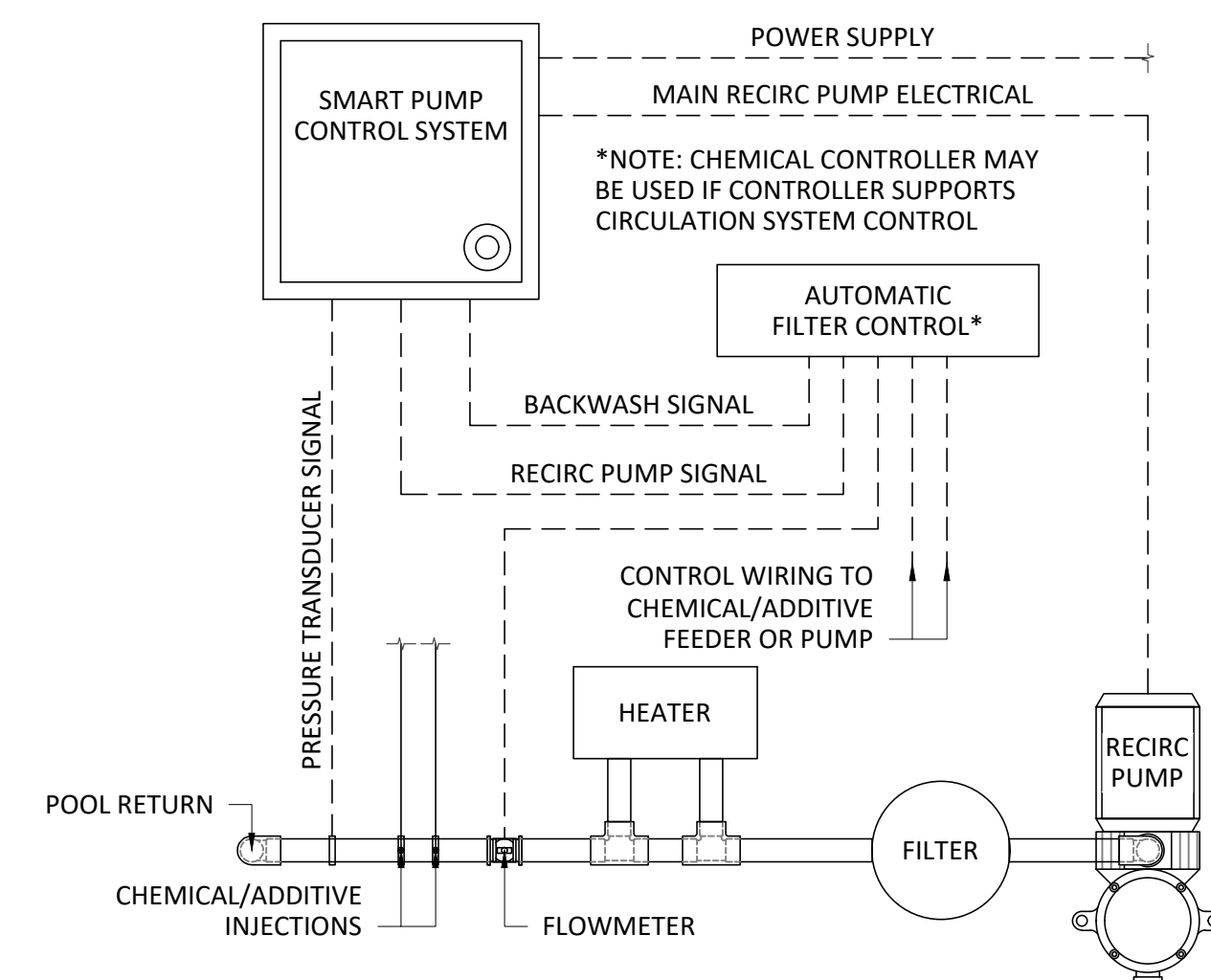
(N) CHEMICAL HAZARD WARNING SIGNAGE



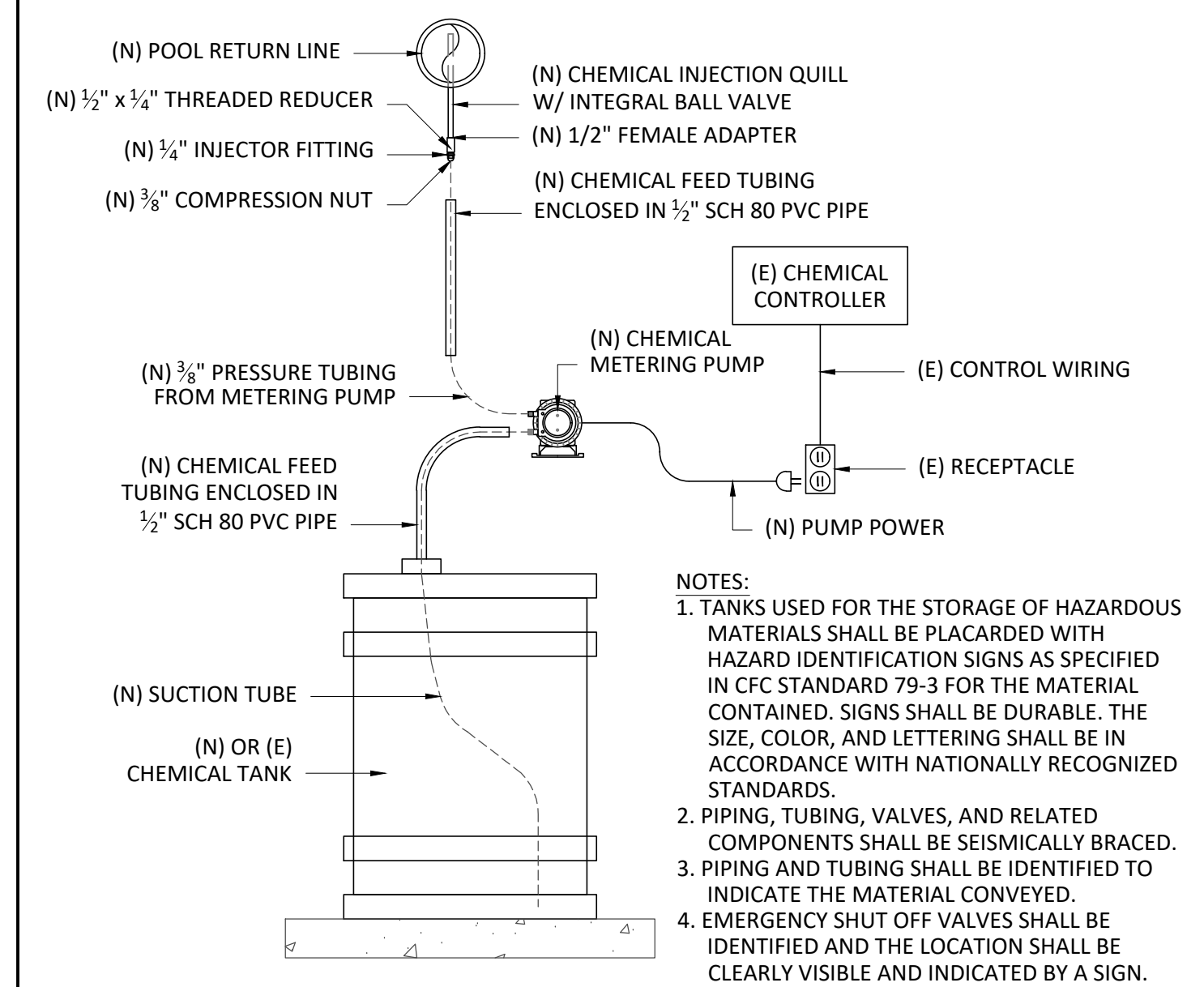
(E) CHEMICAL CONTROLLER SCHEMATIC



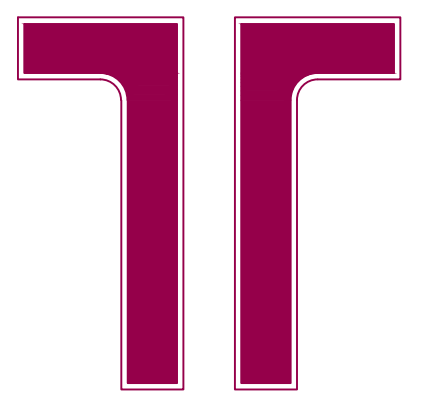
(N) EMERGENCY EYEWASH & SHOWER



(E) SPCS SCHEMATIC



(N) CHEMICAL FEED TANK  
N.T.S.



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## POOL EQUIPMENT ROOM DETAILS

NEWPORT HARBOR HIGH SCHOOL  
POOL EQUIPMENT REPLACEMENT  
600 IRVINE AVENUE  
NEWPORT BEACH, CA 92663

REV	DATE	DESCRIPTION
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STAMP/SEAL:



Renewal Date: 07/31/2021

PROJECT NO:

BE206005

SCALE:

AS NOTED

DATE:

0/16/2020

DRAWN:

E. NUÑEZ

DESIGNED:

B. ROGERS

APPROVED:

CLELLAND

## SP1.3

# CONSTRUCTION DOCUMENT





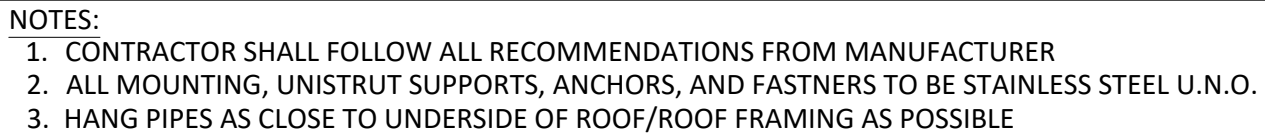


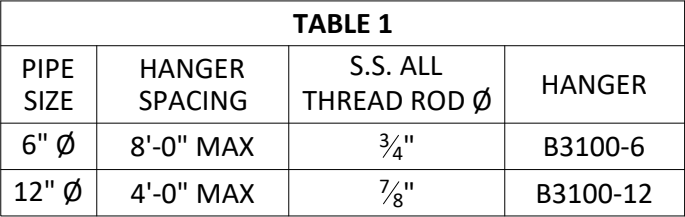
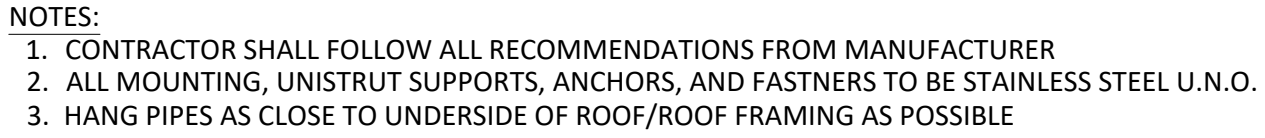
TABLE NOTE: HORIZONTAL PVC SCHEDULE 80 PIPING SHALL BE SUPPORTED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS FOR FLUID TEMPERATURE NOT EXCEEDING 120° F AND AS LISTED ABOVE:

TABLE NOTE: HORIZONTAL CPVC SCHEDULE 80 PIPING SHALL BE SUPPORTED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS FOR FLUID TEMPERATURE NOT EXCEEDING 140° F AND AS LISTED ABOVE:

- NOTES:
1. CONTRACTOR SHALL FOLLOW ALL RECOMMENDATIONS FROM MANUFACTURER
  2. ALL MOUNTING, UNISTRUT SUPPORTS, ANCHORS, AND FASTNERS TO BE STAINLESS STEEL U.N.O.
  3. HANG PIPES AS CLOSE TO UNDERSIDE OF ROOF/ROOF FRAMING AS POSSIBLE

4

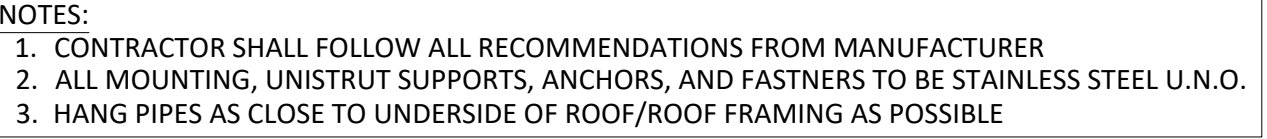
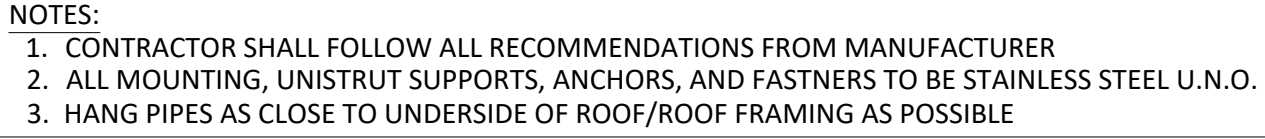
①



- NOTES:
1. CONTRACTOR SHALL FOLLOW ALL RECOMMENDATIONS FROM MANUFACTURER
  2. ALL MOUNTING, UNISTRUT SUPPORTS, ANCHORS, AND FASTNERS TO BE STAINLESS STEEL U.N.O.
  3. HANG PIPES AS CLOSE TO UNDERSIDE OF ROOF/ROOF FRAMING AS POSSIBLE

5

2

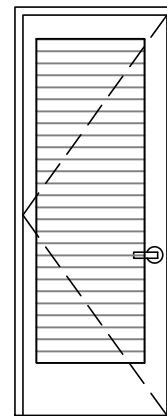


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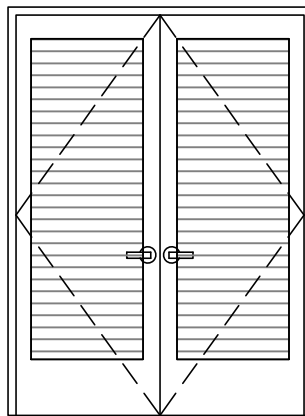
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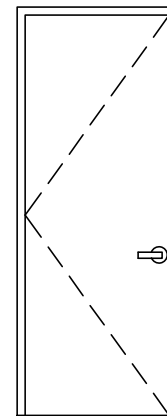
DOOR SCHEDULE													
DOOR NO	Room Name	Door Type	SECURITY DOOR	Door					Frame		Fire Rating	HARDWARE GROUP	Comments
				Width	Height	Thickness	Material	Finish	Material	Finish			
1	POOL EQUIPMENT ROOM	B	YES	6' - 8"	7' - 0"	0' - 1 3/4"	H.M.	1	H.M.	H.M.	NR	HW-1	PROVIDE LOCKABLE HARDWARE
2	ACID ROOM	A	YES	2' - 6"	7' - 0"	0' - 1 3/4"	H.M.	1	H.M.	H.M.	NR	HW-1	PROVIDE LOCKABLE HARDWARE
3	CHLORINE ROOM	B	YES	6' - 0"	7' - 0"	0' - 1 3/4"	H.M.	1	H.M.	H.M.	NR	HW-1	PROVIDE LOCKABLE HARDWARE



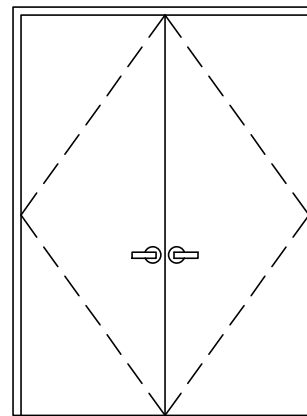
TYPE A



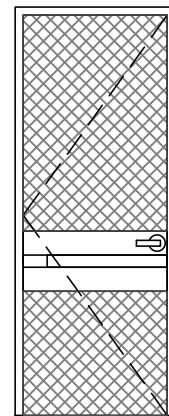
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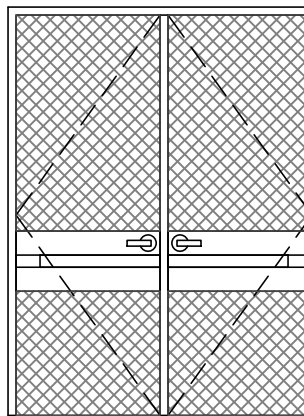
TYPE C



TYPE D



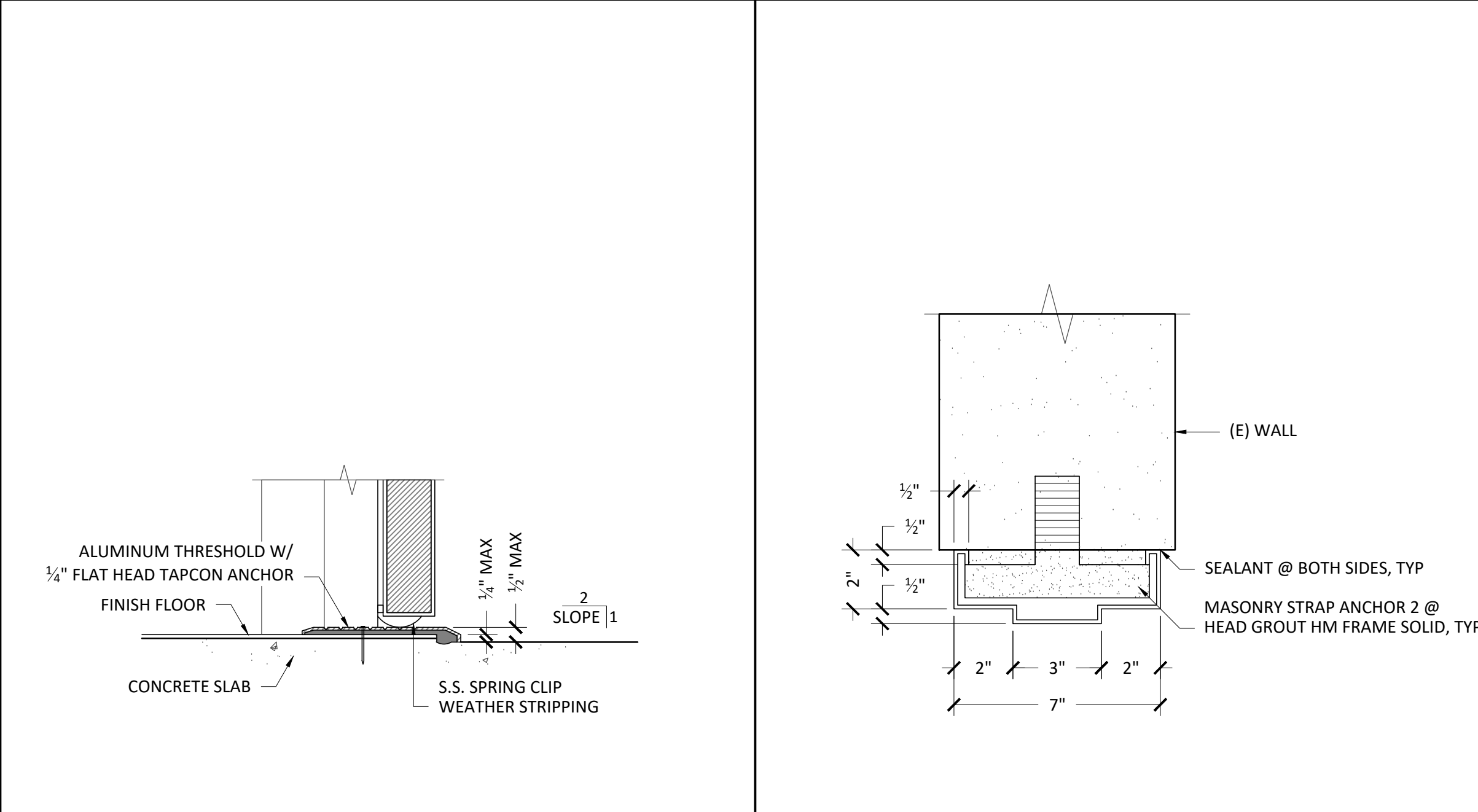
TYPE E



TYPE F

DOOR TYPES  
1/4" = 1'-0"

1

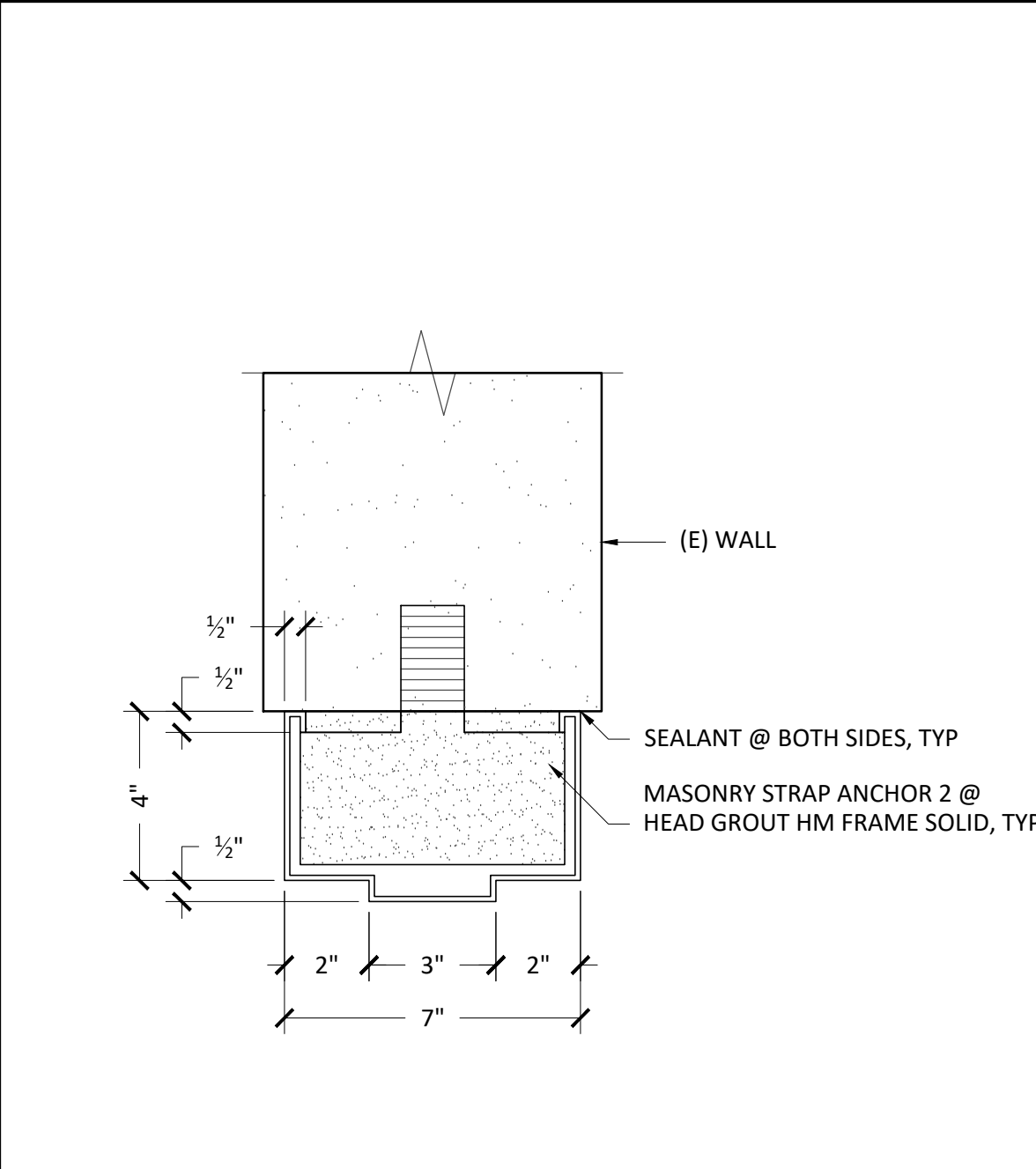


DOOR THRESHOLD  
3" = 1'-0"

4

HOLLOW METAL DOOR JAMB  
3" = 1'-0"

2



HOLLOW METAL DOOR HEAD  
3" = 1'-0"

3

- FINISH NOTES:**
- ENSURE THAT SURFACES TO RECEIVE FINISHES ARE CLEAN, TRUE, AND FREE OF IRREGULARITIES. DO NOT PROCEED WITH WORK UNTIL UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED.
  - PROVIDE PAINTED MINIMUM OF LEVEL 4 FINISH TO MEET ASTM C840 GYPSUM BOARD SURFACES U.O.N. PROVIDE LEVEL 5 FINISH WHERE REQUIRED BY MATERIALS INSTALLED OVER DRYWALL SUBSTRATE.
  - ALL FINISHES SHALL BE PROTECTED DURING CONSTRUCTION. ANY DAMAGE SHALL BE REPAIRED BY CONTRACTOR WITH NO COST TO OWNER
  - FIRE EXTINGUISHER AND HOSE CABINETS, WHERE THEY OCCUR, SHALL RECEIVE SEMI-GLOSS SHEEN PAINT TO MATCH ADJACENT WALL SURFACE.
  - PAINT BACK SIDES OF REMOVABLE ACCESS PANELS AND HINGED COVERS TO MATCH EXPOSED SURFACE. THERE IS TO BE NO BRUSH PAINTING AROUND EXISTING SIGNS, HARDWARE OR WALL MOUNTED ITEMS. REMOVE SUCH ITEMS PRIOR TO PAINTING AND REINSTALL AS REQUIRED.
  - ALL CODE-REQUIRED LABELS SUCH AS "U.L.", FACTORY MUTUAL, OR ANY EQUIPMENT IDENTIFICATION, PERFORMANCE RATING, NAME, OR NOMENCLATURE PLATES SHALL REMAIN READABLE AND NOT PAINTED.
  - PRIME AND PAINT ALL SPECIFIED SURFACES WITH A MINIMUM OF 2 COLOR COATS. DARKER COLORS TO RECEIVE MINIMUM OF 3-COATS FOR SUFFICIENT COVERAGE.
  - ALL DOORS/FRAMES, TO BE PAINTED SHALL RECEIVE SEMI-GLOSS SHEEN PAINT
  - NO PAINTING OR INTERIOR FINISHING SHALL BE DONE UNDER CONDITIONS WHICH JEOPARDIZE THE QUALITY OR APPEARANCE OF SUCH WORK.
  - INTERIOR GYPSUM WALLBOARD SURFACES SHALL BE WIPED WITH DAMP CLOTH JUST PRIOR TO APPLICATION OF THE FIRST COAT, IN ORDER TO LAY FLAT ANY NAP WHICH MAY HAVE FORMED DURING THE SANDING PROCESS. CRACKS, HOLES OR IMPERFECTIONS IN PLASTER OR WALLBOARD SHALL BE FILLED WITH THE PROPER PATCHING COMPOUND FOR THAT MATERIAL.
  - CLEANING AND RETOUCHING:
    - AT COMPLETION OF PAINTING, ALL PAINT MATERIALS AND EQUIPMENT SHALL BE REMOVED, ALL PAINT SPOTS REMOVED AND ALL AREAS THOROUGHLY CLEANED. ANY DIRT OR DEBRIS CAUSED BY WORK SHALL BE CLEANED UP AS WORK PROGRESSES.
    - RETOUCH OR REFINISH PAINTED SURFACES DAMAGED BY SUBSEQUENT WORK AS DIRECTED BY GENERAL CONTRACTOR. THE COST OF SUCH WORK SHALL BE BORNE BY THE TRADE RESPONSIBLE FOR THE DAMAGE.
  - BEFORE INSTALLATION OF FLOOR AND BASE MATERIALS, VERIFY THAT SUB-SURFACE IS SMOOTH, LEVEL AND FREE FROM DEFECTS WHICH WOULD AFFECT THE INSTALLATION. DO NOT PROCEED WITH WORK UNTIL DEFECTS HAVE BEEN CORRECTED. THOROUGHLY CLEAN SUB-FLOOR PRIOR TO INSTALLATION OF THE FINISH FLOOR.
  - ALL FINISHES TO BE CLASS A FLAME SPREAD ACCORDING TO ASTM E84.
  - GC RESPONSIBLE FOR PROVIDING STORAGE FOR NEW AND SALVAGED PRODUCT, AND MOVING GEN. AS NEEDED FOR CONSTRUCTION.
  - CONTRACTOR TO PROVIDE MANUFACTURER'S WARRANTY USE AND CARE MANUALS FOR ALL FINISH PRODUCTS. FOR WHITEBOARD FINISHES, PROVIDE CLEANING KIT.
  - ALL ADHESIVES, SEALANTS AND CAULKS ARE TO COMPLY WITH VOC LIMITS IN SCAQMD RULE 1168 VOS LIMITS AND CALIFORNIA CODE OF REGULATIONS TITLE 17 FOR AEROSOL ADHESIVES. (CALGREEN 5.714.4.4.1)
  - ALL PAINTS AND COATINGS ARE TO COMPLY WITH VOC LIMITS IN THE AIR RESOURCES BOARD ARCHITECTURAL COATINGS SUGGESTED CONTROL MEASURE AND CALIFORNIA CODE REGULATIONS TITLE 17 FOR AEROSOL PAINTS (5.504.4.3)

DOOR & FINISH DETAILS

NEWPORT HARBOR HIGH SCHOOL  
POOL EQUIPMENT REPLACEMENT  
600 IRVINE AVENUE  
NEWPORT BEACH, CA 92663

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APPROVED:	J. McCLELLAND

SP3.0