#### DRAWING INDEX TITLE SHEET / GENERAL NOTES POOL & SPA DETAILS & LOCATION SITE PLAN 5-2 POOL PLAN PLUMBING/MECHANICAL PLANS & ELECTRICAL BONDING 5-3 POOL SECTIONS SPA PLAN & SECTIONS

## GENERAL NOTES

- 1. ALL MAIN DRAINS SHALL COMPLY WITH VGB & ANSI/APSP-7 REQUIREMENTS.
- 2. CUSTOMER TO PROVIDE A SAFETY BARRIER PER LOCAL CODE OR SAFETY COVER COMPLIANT WITH ASTM F1346-91.
- 3. EXCAVATION TO REMAIN ON SITE. (VERIFY WITH GENERAL CONTRACTOR)
- 4. PLUMBING IS A CLOSED LOOP SYSTEM. NO FIXED/WASTE WATER CONNECTION REQUIRED.
- 5. ALL STEEL & ELECTRICAL ITEMS IN OR NEAR THE POOL, INCLUDING LIGHTS, NICHES RAILINGS, REINFORCING STEEL, ETC. SHALL BE BONDED & GROUNDED WITH A #8 BARE COPPER GROUND WIRE AND BE IN ACCORDANCE WITH THE MOST RECENT NATIONAL ELECTRIC CODE (N.E.C.) ARTICLE 680 OR CURRENT ADOPTED N.E.C.
- 6. POOL/SPA TO BE CONSTRUCTED IN WATERPROOFED CONCRETE STRUCTURAL VAULT BY OTHERS
- 7. WHERE STRUCTURAL FILL IS USED, IS SHOULD BE PLACED IN 8-INCH LIFTS AND COMPACTED TO 95 PERCENT OF MAXIMUM DRY DENSITY, WITHIN 2 PERCENT OF THE OPTIMUM MOISTURE CONTENT.
- 8. THE CONTRACTOR SHALL VERIFY ALL FIELD DIMENSIONS, EXISTING CONDITIONS AND NOTED ASSUMPTIONS. ANY DEVIATIONS SHALL BE COORDINATED WITH THE ENGINEER OF RECORD PRIOR TO PROCEEDING WITH RELATED WORK.
- 9. IT IS SOLELY THE CONTRACTOR'S RESPONSIBILITY TO FOLLOW ALL APPLICABLE SAFETY CODES AND REGULATIONS DURING ALL PHASES OF CONSTRUCTION.
- 10. HOSE BIBS SHALL BE LOCATED WITHIN FIFTY FEET OF ANY DECK AREA (RE: PLUMBING PLANS BY OTHERS)
- 11. THE GENERAL CONTRACTOR SHALL PROVIDE REQUIRED LOCKS/ALARMS ON ALL POOL AREA ACCESS POINTS FROM BUILDING PER IBC SECTION 3109.4.1.7.
- 12. THE DECK AREA MUST HAVE A SLOPE OF NOT LESS THAN 1/4" PER FOOT AND NOT MORE THAN 1/4" PER FOOT DIRECTED AWAY FROM THE POOL/SPA/WATER FEATURE EDGE.
- 13. A TELEPHONE OR AN EQUIVALENT ALARM SYSTEM THAT CAN BE USED IN EMERGENCIES MUST BE AVAILABLE AT ALL POOLS. THE TELEPHONE OR EQUIVALENT ALARM SYSTEM MUST BE WITHIN THE IMMEDIATE POOL AREA. IDENTIFY THE LOCATION OF THIS EQUIPMENT.

## CODE REFERENCE

DESIGN, FABRICATION, ERECTION AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CODES LISTED BELOW, THESE DESIGN DRAWINGS AND SPECIFICATIONS.

-INTERNATIONAL BUILDING CODE: 2021 EDITION

-INTERNATIONAL PLUMBING CODE: 2021 EDITION

-NATIONAL ELECTRICAL CODE:

2023 EDITION

-INTERNATIONAL SWIMMING POOL AND SPA CODE (ISPSC) 2021 EDITION

POOLS ARE ALSO DESIGNED IN ACCORDANCE WITH THE FOLLOWING PUBLICATIONS AND GUIDELINES:

-AMERICAN NATIONAL STANDARD INSTITUTE

-VIRGINIA GRAEME BAKER POOL AND SPA SAFETY ACT (VGB) & ANSP 7

-THE STATE CODE OF COLORADO REGULATIONS (CCR)WITH THE COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT PERTAINING TO SWIMMING POOL AND MINERAL BATHS

THE STRUCTURE HAS BEEN DESIGNED USING THE DESIGN LOADS AND MATERIAL SPECIFICATIONS NOTED IN THESE DRAWINGS. ALTERATIONS TO THE STRUCTURAL SYSTEM MUST BE REVIEWED BY THE STRUCTURAL ENGINEER. STRUCTEL CONSULTANTS, LLC STAKES NO RESPONSIBILITY FOR THE INTEGRITY OF THE STRUCTURE IF ALTERATIONS ARE MADE WITHOUT THE ENGINEER'S APPROVAL.

# ISPSC CODE COMPLIANCE

SECTION 302.5 BACK FLOW PROTECTION SHALL BE INSTALLED PER THE IPC.

A. THE WATER SUPPLIED FOR THE POOL SHALL BE FROM POTABLE WATER SOURCE PER SECTION 318.1

2. SECTION 302.6 - NO WASTE-WATER CONNECTION IS REQUIRED. DISCHARGE OF POOL WATER SHALL BE IN CONFORMANCE WITH SECTION 320.1 TO SANITARY OR STORM SEWER, OR INTO AN APPROVED DISPOSAL SYSTEM ON THE PREMISE.

3. DECKS SHALL BE CONSTRUCTED WITH NON-SLIP FINISH PER SECTION 306.

4. SUCTION ENTRAPMENT AVOIDANCE SHALL BE IN IN ACCORDANCE WITH APSP7/SECTION 310 AND LABELED IN ACCORDANCE WITH UL1563. CONTRACTOR TO PROVIDE VGB COMPLIANT GRATE & FRAME CUT SHEET TO LOCAL JURISDICTION FOR REVIEW.

5. THE CIRCULATION SYSTEM HAS BEEN DESIGNED IN ACCORDANCE WITH SECTION 311 AS REFERENCE IN THESE DRAWINGS AND SPECIFICATIONS.

A. SKIMMERS AND MAIN DRAINS ARE EACH DESIGNED TO ACCOMMODATE 100% OF THE CIRCULATION TURNOVER RATE.

B. RETURN INLETS PROVIDED PER EVERY 300 SQ. FT. OF SURFACE AREA OR WITHIN EVERY 15FT OF THE PERIMETER AND IN ACCORDANCE WITH SECTION 314.

C. SKIMMERS ARE PROVIDED FOR EVERY 400 SQ. FT. OF SURFACE AREA AND IN ACCORDANCE WITH SECTION 315 AND NSFS / UL 1563.

ALL PIPING AND FITTINGS TO BE IN CONFORMANCE WITH SECTION 311.4 AND LABELED PER NSF 14. ALL SUCTION OUTLET FITTINGS SHALL BE IN ACCORDANCE WITH APSP 16.

A. ALL PIPING AND FITTINGS TO BE ASTM RATED "PVC" PER TABLES 311.4 / 311.4.1.

7. THE SANITIZING EQUIPMENT PER SHALL BE INSTALLED AND WIRED SO THEY CANNOT OPERATE UNLESS THERE IS ADEQUATE RETURN FLOW TO DISBURSE THE CHEMICAL THROUGHOUT AS DESIGNED PER SECTION 319. SEE SPECIFICATIONS FOR WATER TREATMENT.

8. LIGHTING TO BE PROVIDED PER SECTION 321.2.3 FOR UNDERWATER LIGHTING AS SPECIFIED IN THIS DRAWING SET. LIGHTING SHALL BE INSTALLED PER SECTION 321.4 IN ACCORDANCE WITH NFPA 70

CONCRETE SHALL BE PNEUMATICALLY APPLIED MORTAR (SHOTCRETE) CLASSED AS GRADE "A" CONCRETE SUBJECT TO THE PROVISIONS OF THE LOCAL CODE AND ACI 506.2-19 SHOT CRETE SPECIFICATIONS.

PSI MIN. COMPRESSIVE STRENGTH AT 28

MIN. PROCTOR DENSITY OR AS SPECIFIED

4. SHOTCRETE SHALL BE DAMP CURED FOR A MINIMUM OF 7 DAYS AFTER PLACING.

5. DURING THE APPLICATION OF THE

# HOME RANCH

27315 HOME RANCH ROAD CLARK, CO 80428

\*THIS PLAN IS FOR THE POOL LOCATION

THIS INCLUDES PERIMETER FENCE CODE COMPLIANCE,

SHUT-OFF

& SPA TIMER

(FIELD LOCATE)

FULL LOCATION DESIGN, AND CONSTRUCTION DETAILS.

MINIMUM 1/4" PER 12"

SLOPE @ ALL DECK AREAS

RE: B/S-4

RE: A/S-2

34'-2"

POOL

REFERENCE ONLY.

THIS IS NOT A FORMAL

PROVIDED BY OTHERS.

EQUIP.

(EXIST. BLDG)

SITE PLAN AND ANY ADDITIONAL

INFORMATION OR REQUIREMENTS

ARE TO BE REFERRED TO ON

THE CIVIL, ARCHITECTURAL, OR

LANDSCAPE PLANS PERMIT PLANS

 $14'-11\frac{1}{2}"$ 

POOL DECK

SWIMMING POOL & SPA

# SYMBOL KEY

SKIMMER LIGHT DRAIN

## REINFORCING STEEL

1. REINFORCEMENT SHALL CONFORM TO THE ACI DETAILING MANUAL OF STANDARD PRACTICE, UNLESS OTHERWISE NOTED. REINFORCING PLACEMENT SHALL BE IN ACCORDANCE WITH SECTION 7.5 AND 7.6 OF

2. DEFORMED BARS SHALL BE ASTM A615 GRADE 60, UNLESS OTHERWISE NOTED, PER "SPECIFICATION FOR DEFORMED BILLET-STEEL BARS FOR CONCRETE REINFORCEMENT". 3. WHERE SPLICES IN REINFORCING ARE REQUIRED, THEY SHALL BE LAPPED AND STAGGERED SUCH THAT NO MORE THAN ONE-HALF OF THE BARS ARE LAP SPLICED WITHIN A REQUIRED LAP LENGTH, AND SHALL MEET THE REQUIREMENTS OF A CLASS 'B' SPLICE. MINIMUM SPLICE LENGTHS FOR CLASS "B" (GR 60, 3000-5000 PSI CONCRETE):

#3 TO #5 ...... 24" MIN. #6 TD #7 ...... 36" MIN. #8 AND LARGER ...... 36" MIN., OR AS

4. REINFORCING SHALL BE #4 AND LARGER A615, GR, 60, FY = 60.00PSI5. PROVIDE 2" MIN. CLEARANCE OF REINFORCEMENT FROM SOIL IN WALL AND 3" MIN. CLEARANCE IN SLABS. USE ALL #4 BARS

6. AS AN ALTERNATE, THE TOP HORIZONTAL BARS IN THE EDGE BEAM MAY BE PLACED ON TOP OF THE BENT VERTICAL BARS INSTEAD OF BELOW THEM.

7. PROVIDE HORIZONTAL CORNER BARS AT HALF POOLCING OF TYP. REINFORCING AT ALL WALL CORNERS.

NOTE: NO CHEMICALS TO BE STORED

PROVIDE/BRING MATERIALS TO SITE

RELATED LIGHTING REQUIREMENTS

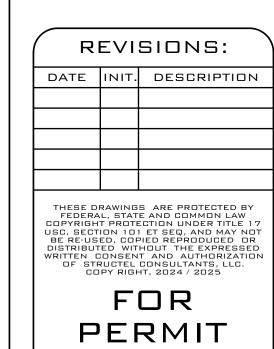
NOTE: REFER TO ELECTRICAL PLANS BY OTHERS FOR

(THIS PLAN IS FOR POOL LOCATION REFERENCE ONLY)

ONSITE FOR THIS POOL. POOL

MAINTENANCE COMPANY TO

EXCEPT AS NOTED.



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25085 ISSUE DATE: 04-08-25 DRAWN BY: RN/RE CHECKED BY: KFL

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## SHOTCRETE

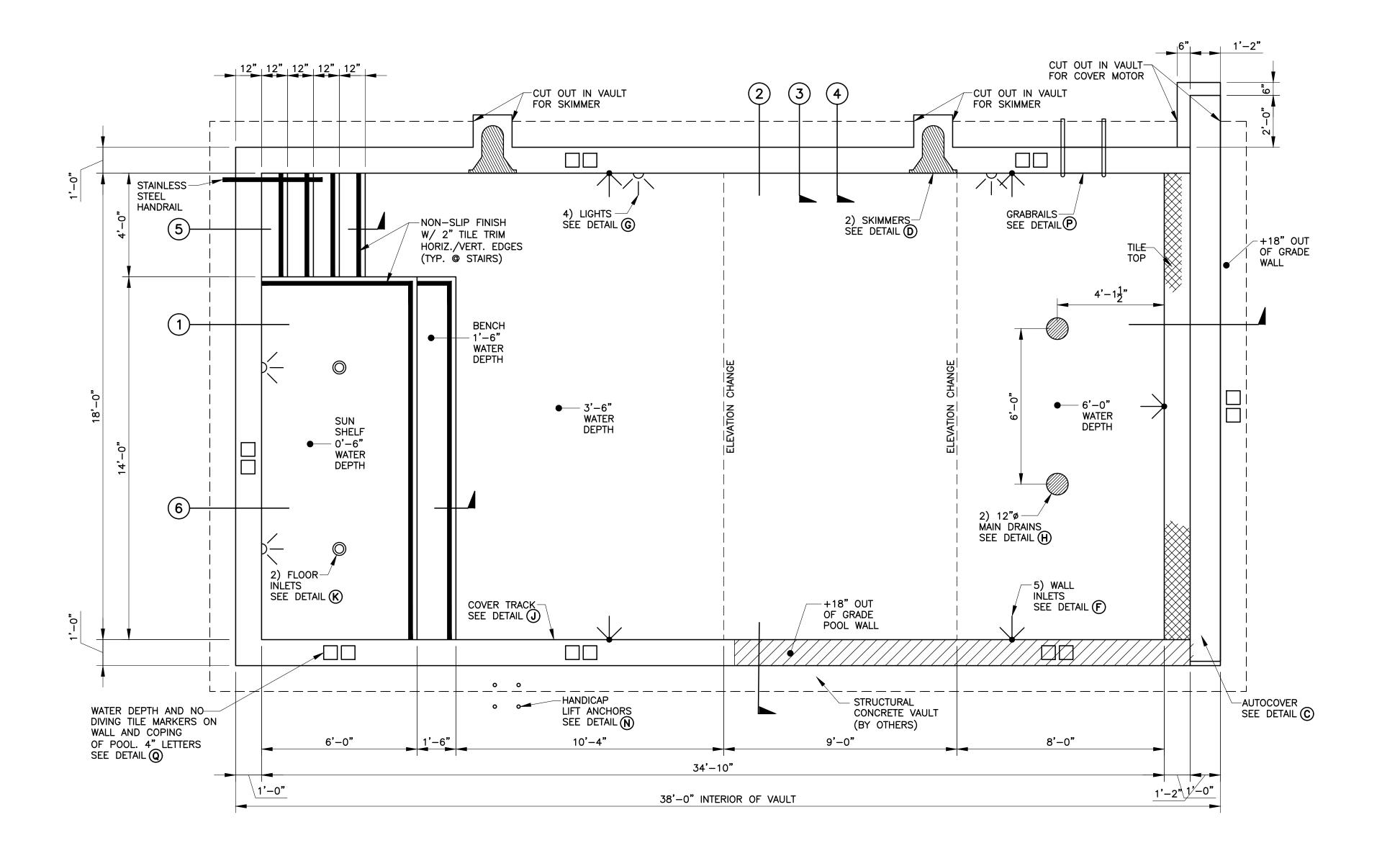
2. SHOTCRETE SHALL BE COMPOSED OF 8 1/2 SACKS OF CEMENT, 30% PEA GRAVEL, 70% SAND, 3 TO 5 OZ. OF AIR ENTRAINING COMPOUND, 2 TO 5 OZ. OF WATER REDUCING ADMIXTURE, 10% WATER WITH 3" TO 4" SLUMP AND 5,000 DAYS.

3. SHOTCRETE SHALL BE PLACED AGAINST UNDISTURBED NATURAL SOIL OR AGAINST FILL COMPACTED TO 90% IN THE SOILS REPORT.

SHOT CRETE THE AIR TEMPERATURE SHALL BE A MINIMUM OF 35 DEGREES.

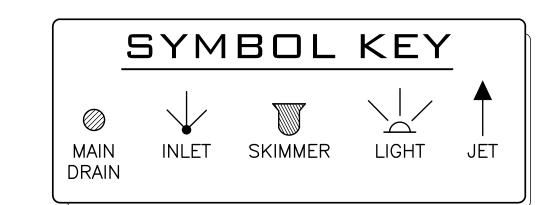
LOCATION PLAN

SCALE: 3/16" = 1'-0"



## POOL SPECS.

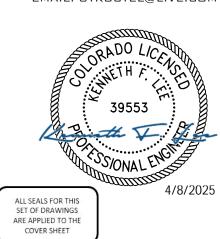
LENGTH: 34<sup>'</sup>-10" WIDTH: 18'-0" WATER DEPTH: 3'-6" - 6'-0" SUR. AREA: 627 S.F. INLETS: 5) WALL 2) FLOOR PERIMETER (FT): 105'-8" EXCAVATION TYPE: N/A - CONCRETE VAULT PLUMBING SIZE: 2" PVC SKIMMER: 2) STA-RITE U-3 IN WALL MAIN DRAIN: 2) 12"Ø DRAIN W/ VGB COMPLIANT GRATE & FRAME POOL CAPACITY GALLONS: 18,000+/-FILTER TYPE: JANDY SFSM100F SAND FILTER PUMP/FILTER GPM: 50 PUMP TYPE: JANDY VSSHP270DV2A(S) WATER TREATMENT: JANDY EROSION FEEDER JEF-IN TURNOVER RATE: 6 HR O MIN. HEATER: JANDY JXI400NC 400,000 BTU POOL LIGHT: 4) JANDY NICHELESS LED REBAR SIZE: #4 GRD 60 ELEC. BY: BY OTHERS GAS BY: BY OTHERS COPING: BY OTHERS DECKING: BY OTHERS TILE: 6" TILE WATER LINE STRIP ACCENT TILE: 2" AT BENCH, SHELF, AND STEPS PLASTER FINISH: DIAMOND BRITE OR EQ. AUTOCOVER: COVERPOOLS SAVE T4 ASTM F1346-91 MISC: 1) STAINLESS STEEL FIGURE 4 HANDRAIL MISC: 1) SET OF STAINLESS STEEL GRABRAILS



MISC: JANDY K1100 AUTOFILL



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REVISIONS:

DATE INIT. DESCRIPTION

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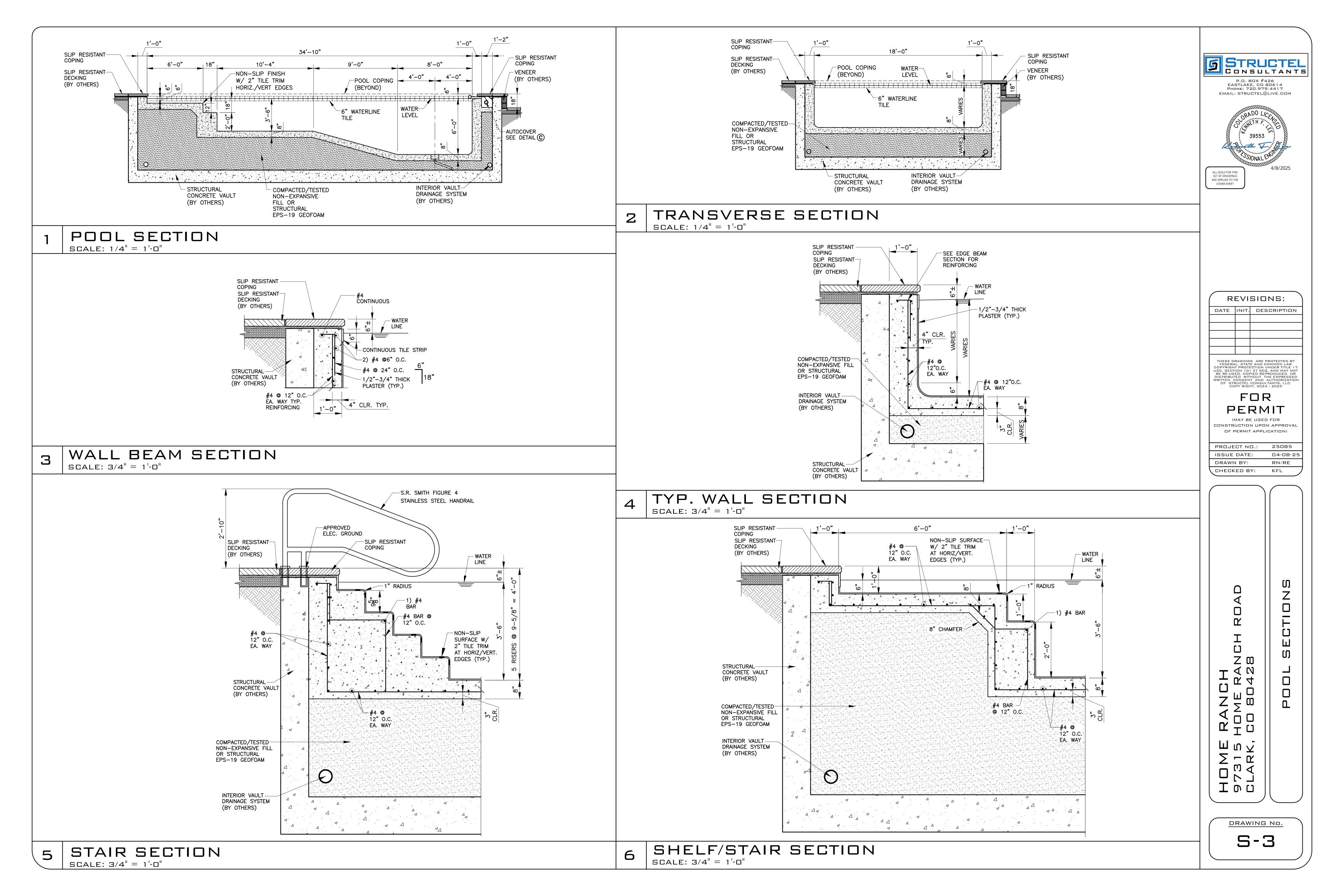
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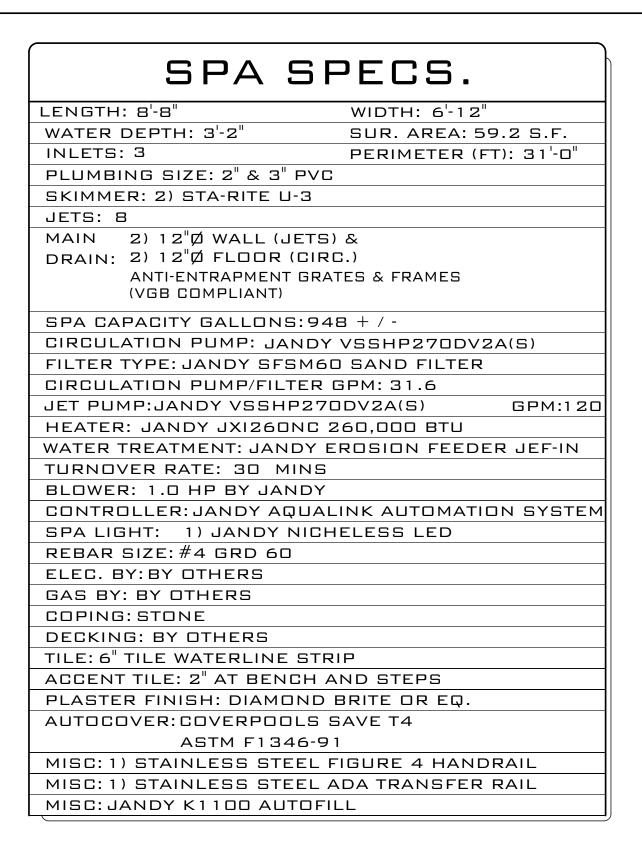
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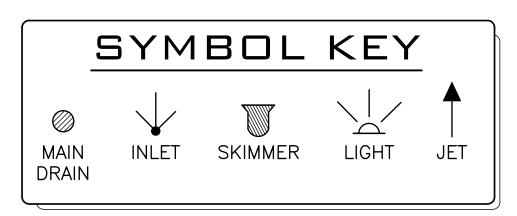
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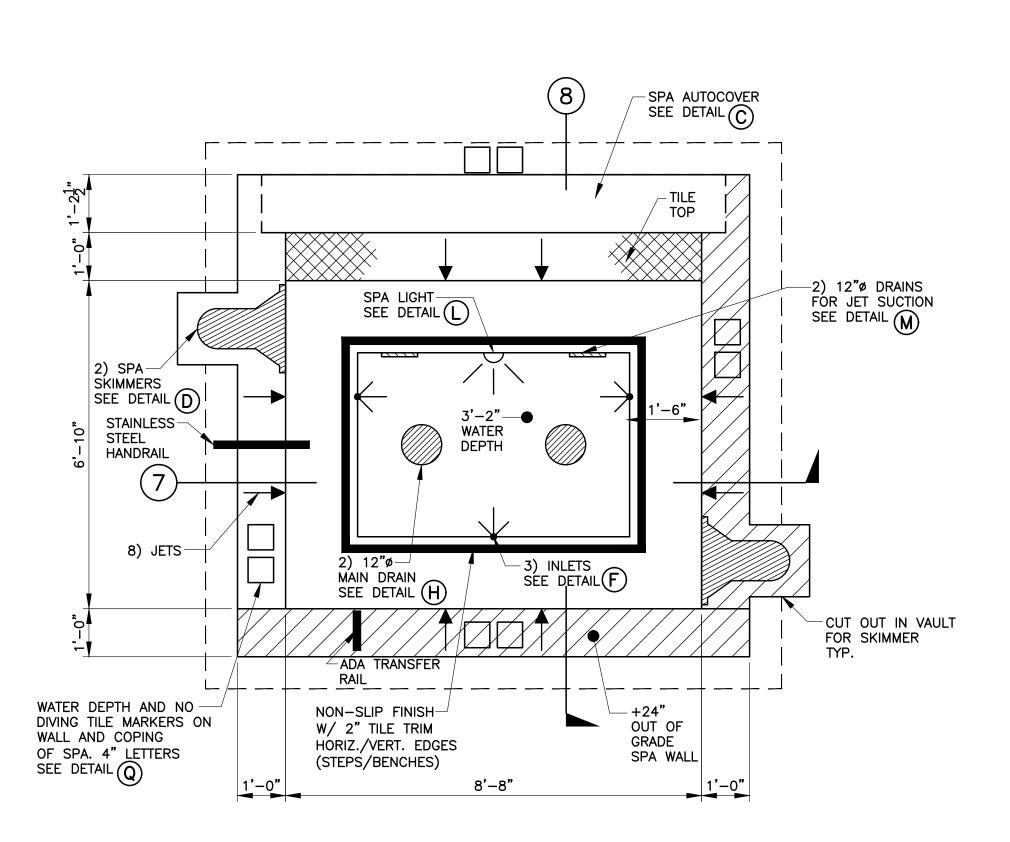
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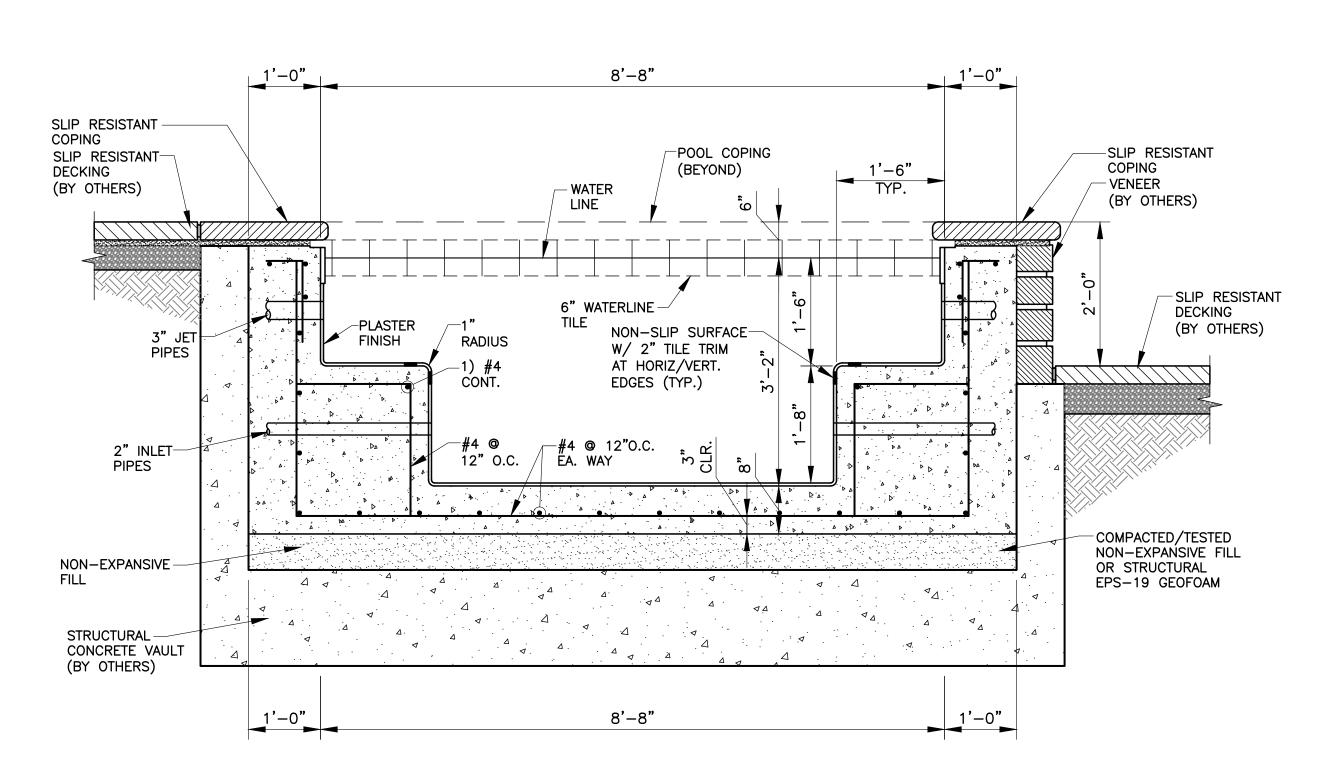
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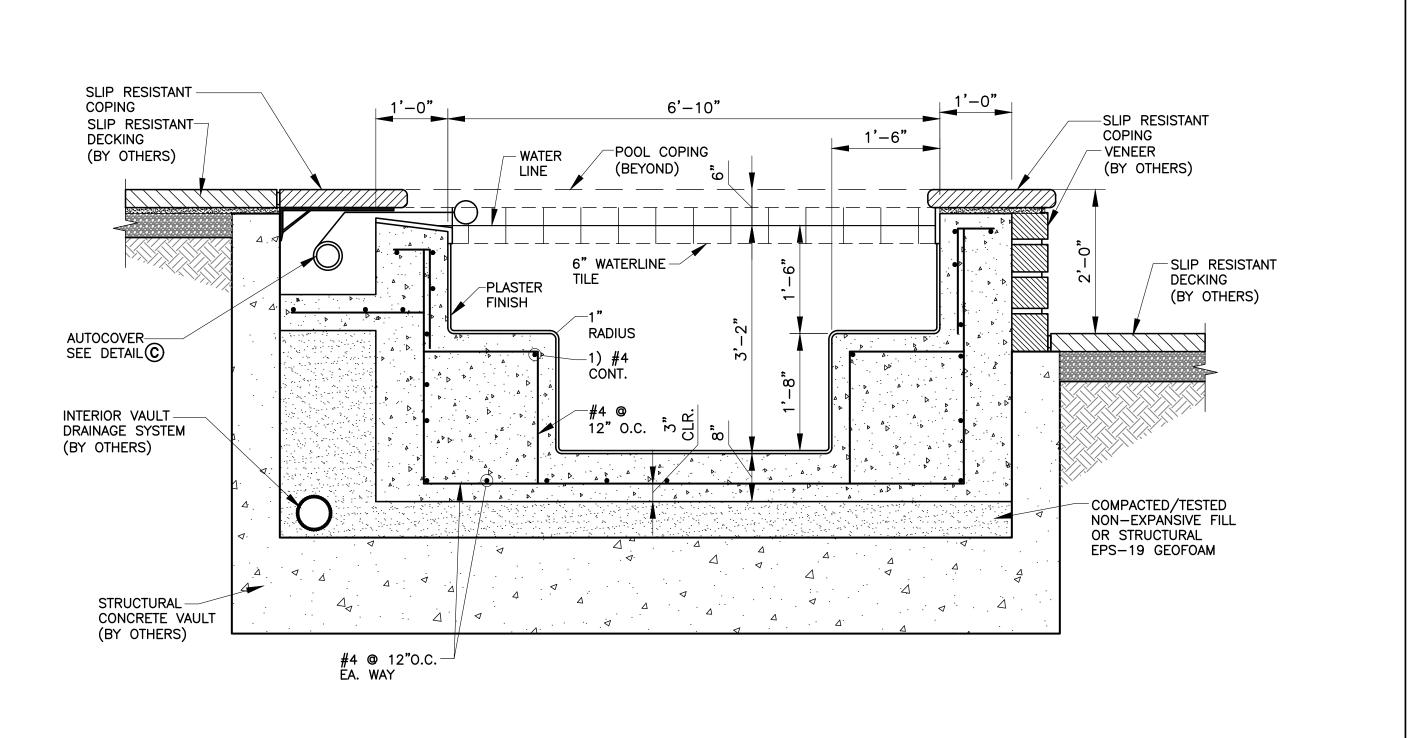








7 SPA SECTION
SCALE: 3/4" = 1'-0"



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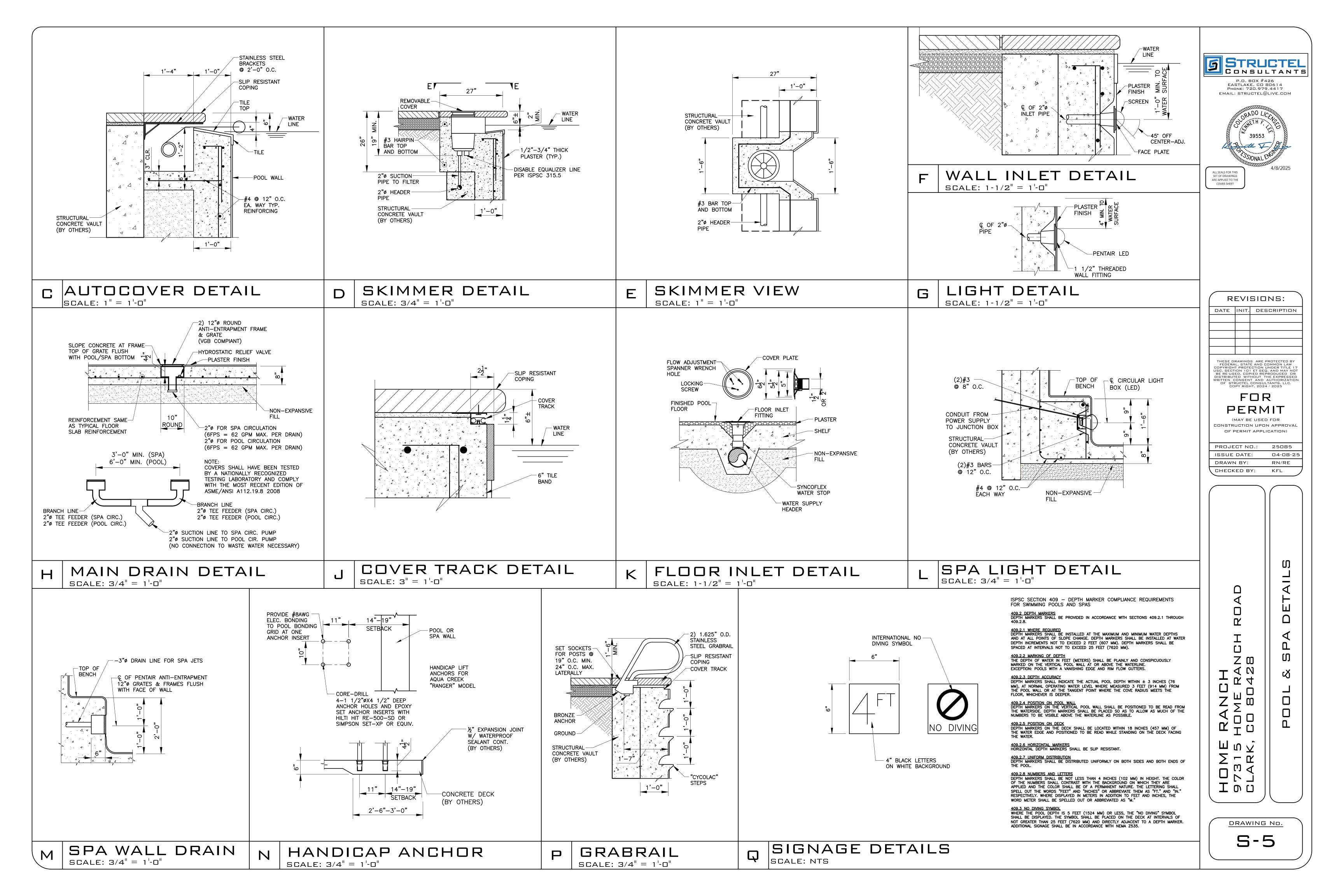
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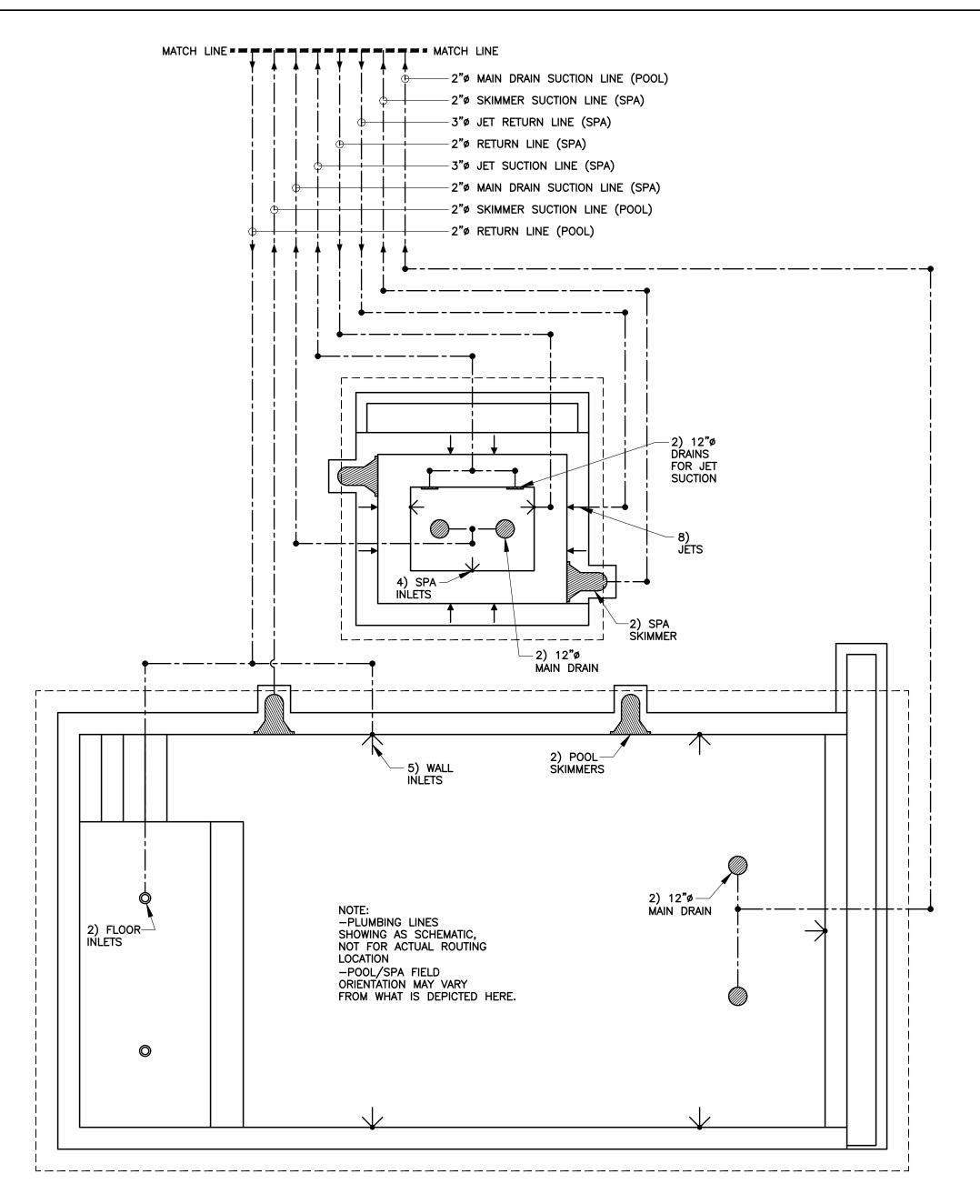
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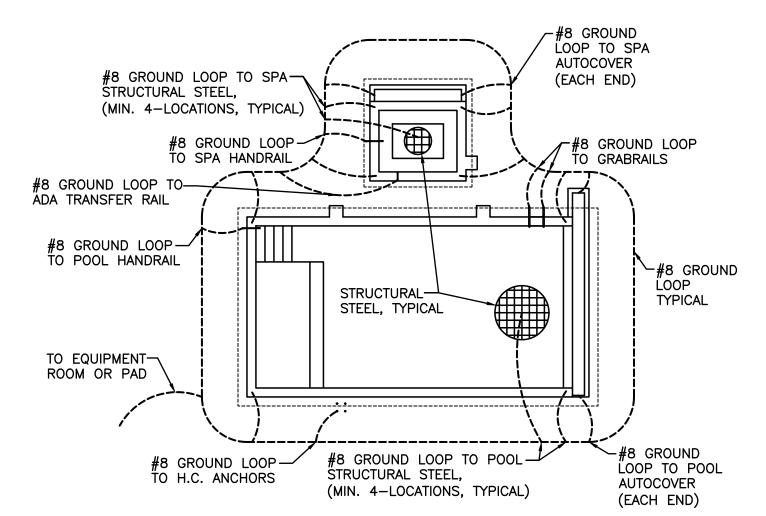
HOME RANCH ROAD 97315 HOME RANCH ROAD CLARK, CO 80428 SPA PLAN & SECTIONS

5-4





### PLUMBING SCHEMATIC SCALE: NTS



**GROUNDING NOTES** 

1. ALL WIRE TO BE #8 SOLID BARE COPPER

2. CONNECTION SHALL BE LISTED PRESSURE TYPE OR EXOTHERMIC WELD.

3. GROUND LOOP AROUND POOL AND ASSOCIATED STRUCTURAL SHALL BE 18"-24" FROM PERIMETER OF POOL. 4. GROUND LOOP SHALL FOLLOW CONTOUR OF FEATURE EDGE BURIED 4"-6" BELOW GRADE.

5. ALL PUMPS, HEATERS, & LIGHTS SHALL BE GFI PROTECTED. 6. ALL DECK BONDING TO BE WITHIN 6FT. OF STRUCTURE

7. ALL PRE-WIRED FIXTURES TO BE ROUTED TO ABOVE GRADE JUNCTION BOX WHICH IS ATTACHED TO THE BONDING GROUND LOOP. 8. INSTALLATION TO BE IN COMPLIANCE WITH NEC 2023 REQUIREMENTS

MECHANICAL AND PIPING NOTES

GENERAL CONTRACTOR SHALL PROVIDE 100 NET FREE SQUARE INCHES OF COMBUSTION AREA AND 100 4. ALL LINES SHALL BE LABELED AND COLOR NET FREE SQUARE INCHES OF VENTILATION AREA FOR THE POOL HEATER IN THE EXTERIOR WALL OF THE MECHANICAL ROOM. THE COMBUSTION AREA SHALL BE 12 INCHES ABOVE THE FLOOR AND THE VENTILATION AREA SHALL BE 12 INCHES BELOW THE CEILING. (400,000 / 4,000 = 100)

GENERAL CONTRACTOR SHALL PROVIDE 65 NET FREE SQUARE INCHES OF COMBUSTION AREA AND 65 NET FREE SQUARE INCHES OF VENTILATION AREA FOR THE SPA HEATER IN THE EXTERIOR WALL OF THE MECHANICAL ROOM. THE COMBUSTION AREA SHALL BE 12 INCHES ABOVE THE FLOOR AND THE VENTILATION AREA SHALL BE 12 INCHES BELOW THE CEILING. (260,000 / 4,000 = 65)

2. ALL PIPING SHALL BE SCHEDULE 40 PVC(UNO)

3. ALL PIPING SHALL BE IN ACCORDANCE WITH INTERNATIONAL PLUMBING CODE REQUIREMENTS

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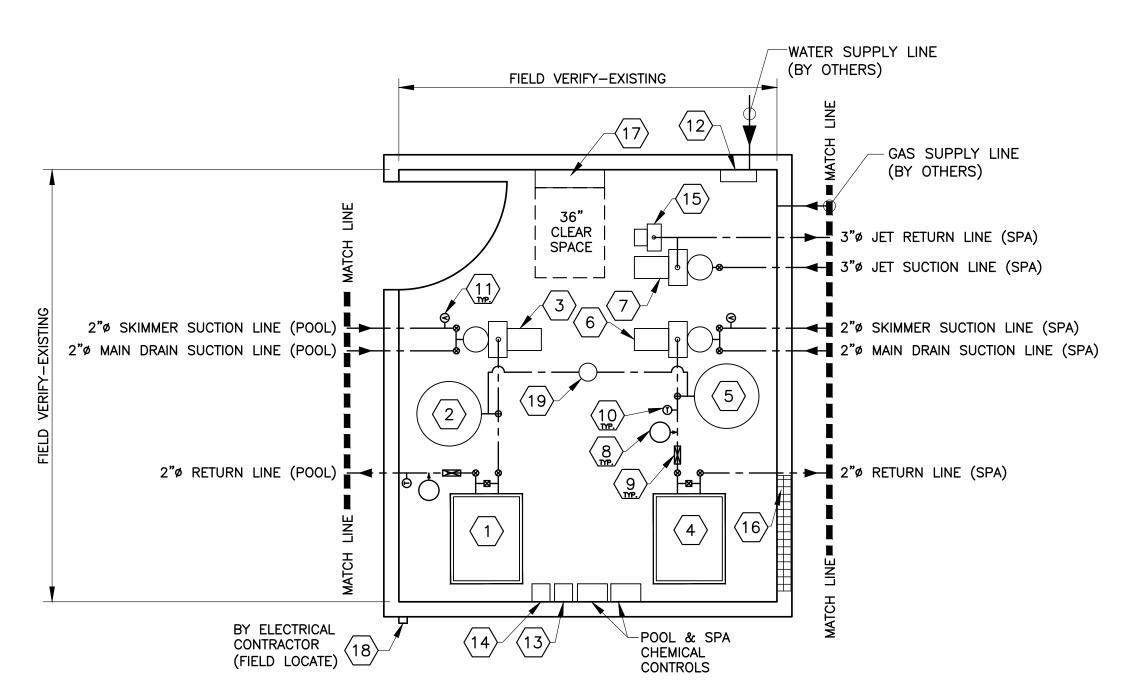
5. ALL DRAIN FITTINGS TO CARRY 100% OF RECIRCULATION RATE A VELOCITY NOT TO EXCEED 6' PER SECOND.

6 ALL PIPING DESIGNED FOR 6' PER SECOND MAXIMUM SUCTION, 8' PER SECOND MAXIMUM PRESSURE RETURN LINES, AND 3' PER SECOND MAXIMUM GRAVITY.

7. OVERALL PIPING IS SHOWN IN DIAGRAMMATIC FORM TO INDICATE WORK TO BE DONE RATHER THAN TO SHOW EXACT ROUTING AND LOCATION.

8. ALL VENTING TO BE DONE BY OTHERS.

EQUIPMENT SCHEDULE			
NO.	ITEM	NO.	ITEM
1	JANDY JXI400NC 400,000 BTU HEATER (POOL)	(11)	VACUUM GAUGE (TYP.)
2	JANDY SFSM100F SAND FILTER (POOL)	(12)	1-1/2" DOMESTIC WATER SUPLY W/ BFP AND HOSE BIB (BY OTHERS)
3	JANDY VSSHP270DV2A(S) VARIABLE SPEED PUMP (POOL)	(13)	JANDY K2100 AUTOFILL LEVELOR (POOL)
4	JANDY JXI260NC 260,000 BTU HEATER (SPA)	(14)	JANDY K2100 AUTOFILL LEVELOR (SPA)
5	JANDY SFSM60 SAND FILTER (SPA)	(15)	JANDY 1.0 H.P. BLOWER (SPA-JETS)
6	JANDY VSSHP220DV2A(S) VARIABLE SPEED PUMP (SPA-CIRC.)	(16)	EXHAUST VENTS SEE NOTES 1&2 & MECHANICAL PLAN (BY OTHERS)
7	JANDY VSSHP270DV2A(S) VARIABLE SPEED PUMP (SPA-JETS)	(17)	ELECTRICAL PANEL (BY ELECTRICAL CONTRACTOR)
8	JANDY EROSION FEEDER JEF—IN CHLORINATOR (TYP.)	(18)	EMERGENCY SHUTOFF SWITCH (BY ELECTRICAL CONTRACTOR)
9	BLUE WHITE FLOW METER (TYP.)	(19)	FLOOR DRAIN/BACKWASH SUMP (BY OTHERS)
(10)	TEMP GAUGE (TYP.)		



\*OVERALL PIPING IS SHOWN IN DIAGRAMMATIC FORM TO INDICATE WORK TO BE DONE RATHER THAN TO SHOW EXACT ROUTING AND LOCATION. EQUIPMENT AND PIPING PLACEMENT TO BE FIELD COORDINATED BY POOL CONTRACTOR AND MAY VARY FROM WHAT IS DEPICTED HERE

BACKWASH NOTES:

1. THE BACKWASH DISCHARGE LINE MUST BE INDIRECTLY DRAINED WITH A SUFFICIENT AIR GAP. 2. THE BACKWASH DISCHARGE LINE MUST HAVE A SIGHT GLASS. 3. MIN. 2"Ø DISCHARGE LINE

<u>VENTING NOTES:</u>
1. HEATER TO BE VENTED PER MANUFACTURER. ALL VENTING TO BE DONE BY MECHANICAL CONTRACTOR.

ELECTRICAL NOTES:
-ALL ELECTRICAL WIRE, BONDING, CONDUITS, CONNECTIONS, HIGH VOLTAGE/LOW VOLTAGE, EPO, TIMERS, ALL BY **ELECTRICAL CONTRACTOR** 

DRAWING No.

5-6

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ARE APPLIED TO THE

ELECTRICAL BONDING DIAGRAM SCALE: NTS

MECHANICAL LAYOUT SCHEMATIC SCALE: NTS