



**NESPA**  
TILED SPAS

# **Production Booklet**

**for the**

# **COTTON SPA**

2800 Richter Ave. Suite C, Oroville, CA 95965 • **voice:** (530)534-9910  
**fax:** (530)534-9915 • **email:** sales@tiledspas.com • **website:** www.tiledspas.com



## RECOMMENDED MAINTENANCE

### *Please Note:*

These are only recommended guidelines to care for a Nespa all tiled spa. Local codes may require additional procedures, therefore consult with a pool professional that is LA county Health Department certified for more information on local codes and requirements.

### **SPA SURFACE**

Your spa tile is acid resistant and frost-proof. The Tile does not absorb germs or algae. Tile does not stain and is very easy to clean. Color does not fade or lose its luster. All grouts are epoxy based and are extremely durable. To remove scum line use soft nylon brush and small amounts of biodegradable soaps. Do not use abrasive brushes or chemicals.

### MAINTENANCE

#### **A. CHEMICALS:**

- 1) It is important to maintain a chlorine residual of 2 PPM in the spa. That residual can be provided by chlorine or bromine.
- 2) It is recommended to use Bromine or dichlor (granular) forms of chlorine. If bromine Tabs are used we suggest floating or inline dispenser.
- 3) Never use acid to lower Ph in the tile spa.
- 4) Never use trichlor chlorine (1" or 3") tablets in the Nespa spas.
- 5) Never place tablets in skimmer basket.

#### **B. DRAINING THE SPA:**

- 1) It is recommended to drain the spa at least once every 2 months depending on bath load and water clarity.
- 2) The spa should be drained through valve exiting re-circulation pump in the spa equipment room or sump pump.
- 3) Note: Use caution to drain spa in the winter months or rainy season when water table is at its highest. It is possible for the spa to float due to hydraulic pressure from surrounding water table. We advise that you consult with your local spa specialist prior to draining the spa.

#### **C. SPA EQUIPMENT:**

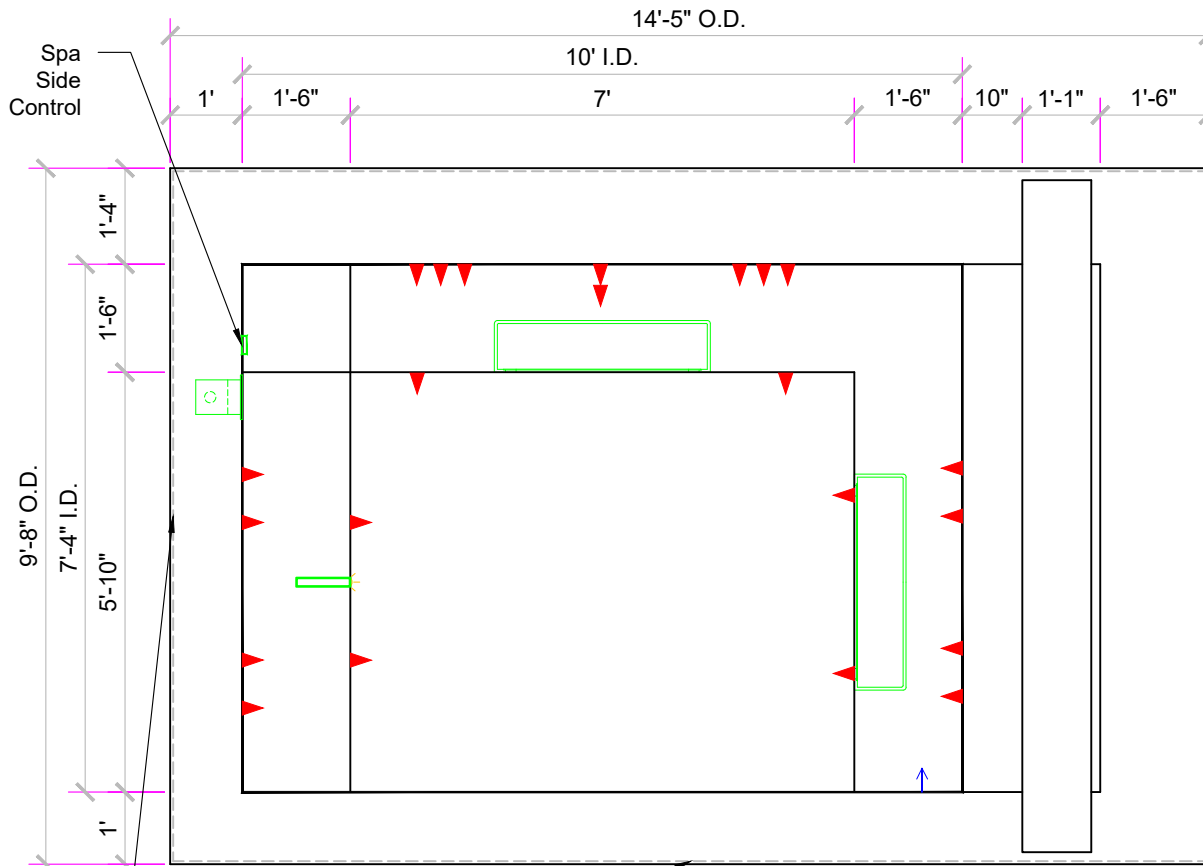
- 1) Clean filter cartridge at least once every month, or when needed; i.e., if water clarity does not improve after several days.
- 2) Keep area free and clear from leaves and debris build-up.
- 3) Keep area free and clear from flooding.

#### **D. SPA LIGHT:**

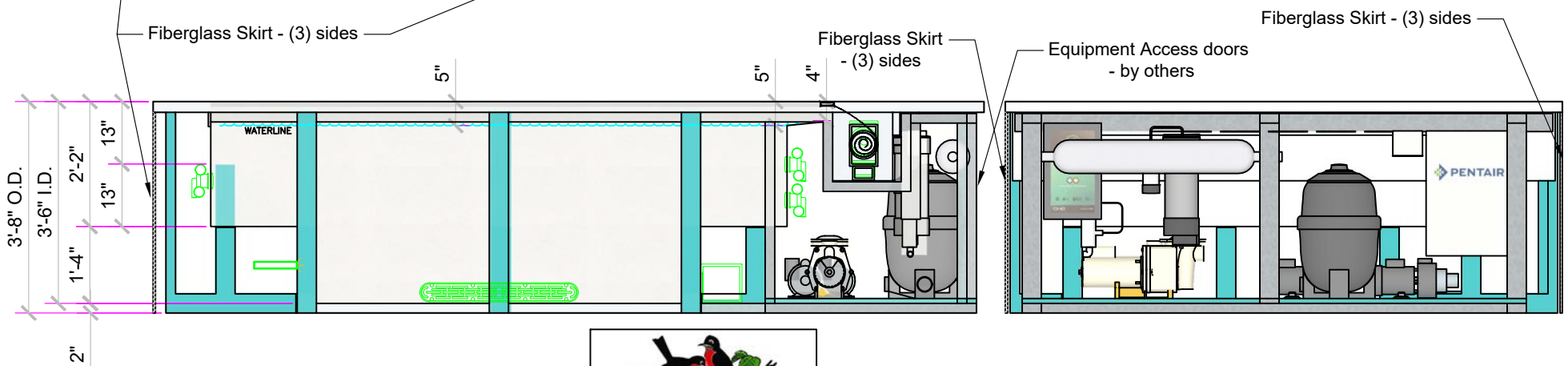
- 1) Spa light has to be on GFCI circuit. It is controlled at spa side with ON/OFF.

#### **E. TILE SERVICING:**

- 1) Contact manufacture when servicing tile or grout. @ (530) 534-9910



SPECIFICATIONS	
SHELL WEIGHT:	2800 LBS.
WATER WEIGHT:	11599 LBS.
TOTAL SHELL & WATER WEIGHT:	14399.1 LBS.
WATER VOLUME:	186 Cu.Ft.
WATER GALLONS:	1391 GAL.
SURFACE AREA:	73.3 SQ. FT.
ICC ES LISTED #:	PMG-1161

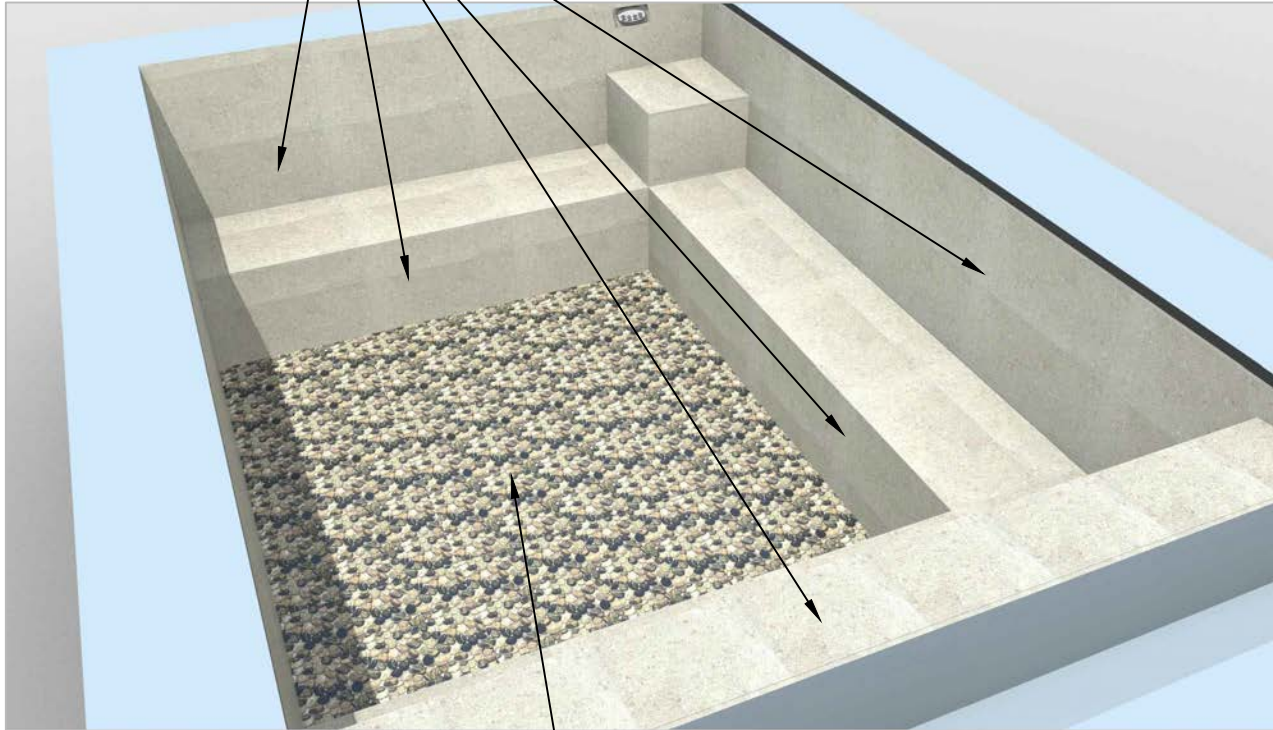


**APPROVED**



SIZE A	LAYOUT	SD	DWG	COTTON	JOB# 82	REV
			SCALE: 3/8" = 1'	DATE: 1/21/2020	SHEET 1 OF 8	

**Daltile**  
 Dignitary Notable Beige  
 DR09 - unpolished Matte  
 12 X 24



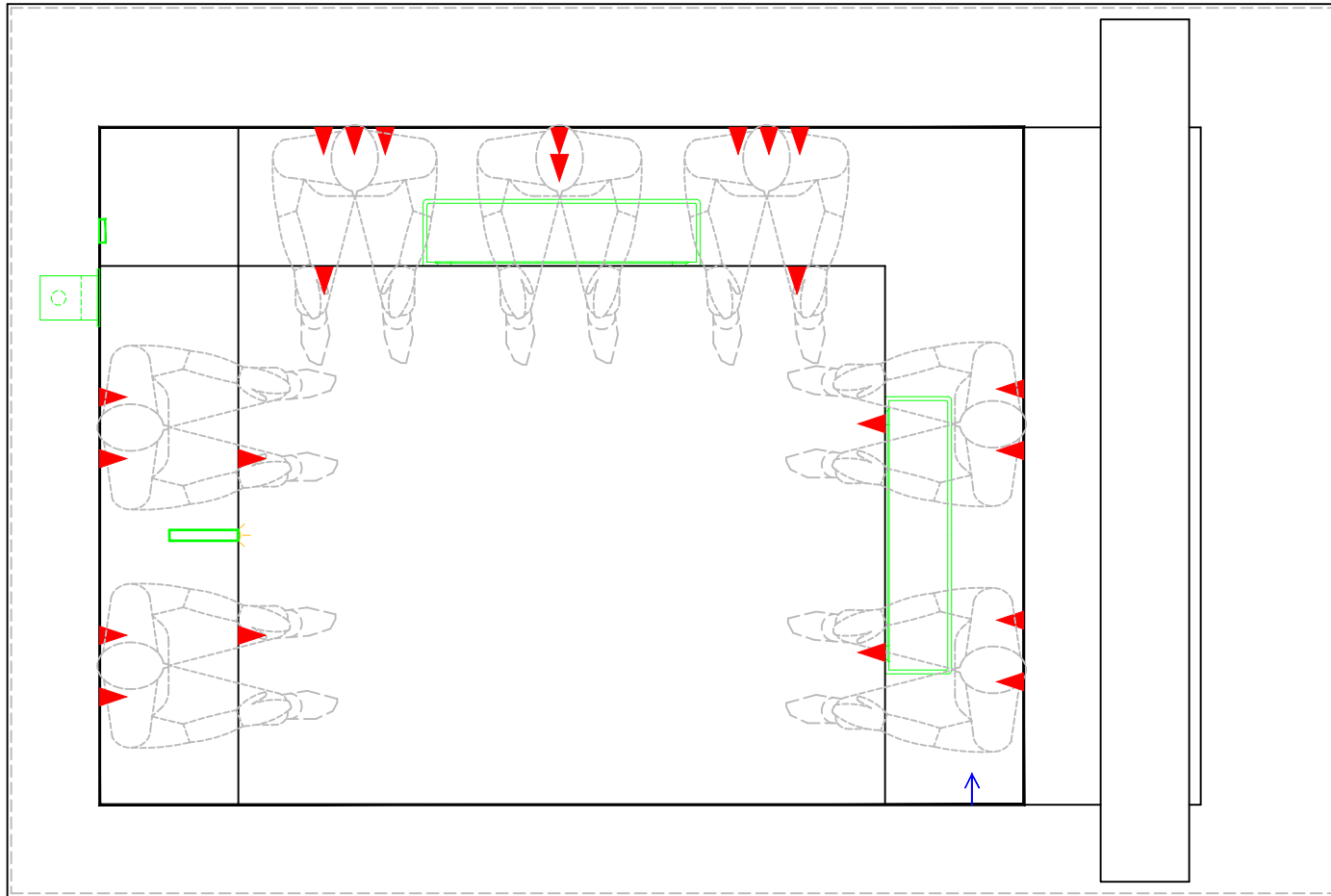
Stratastone Polished Natural Mix  
 Pebble Tile Item # PP002



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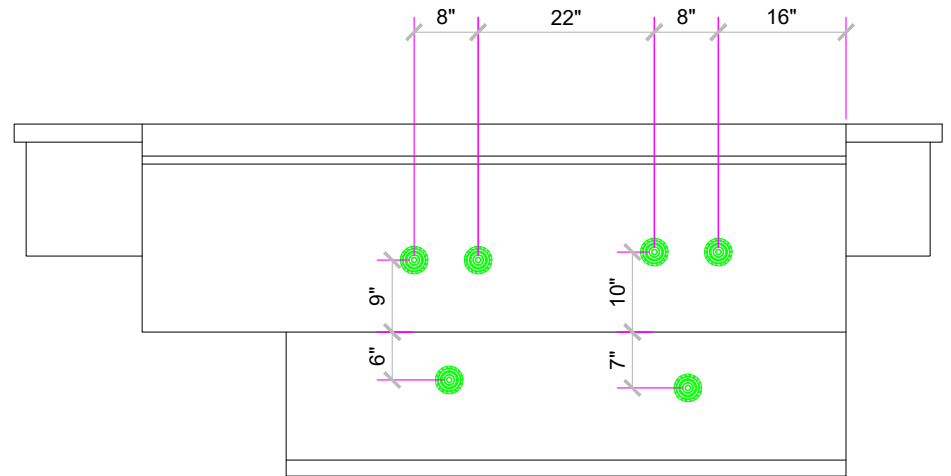
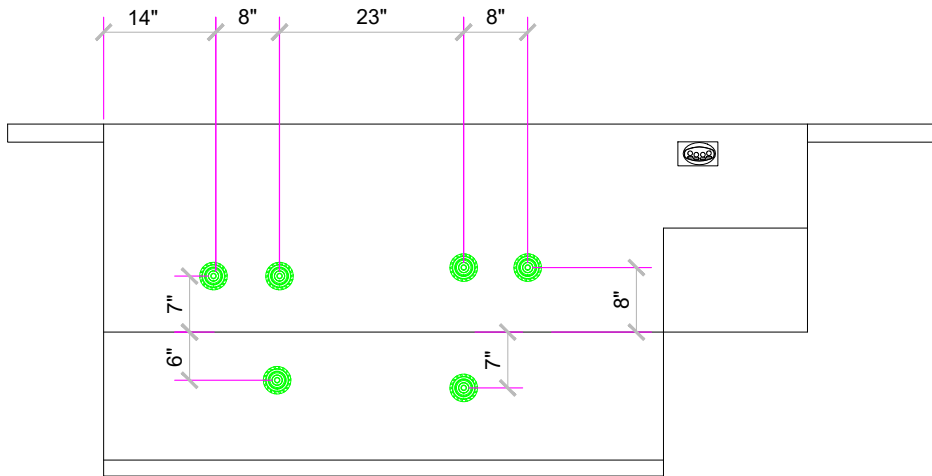
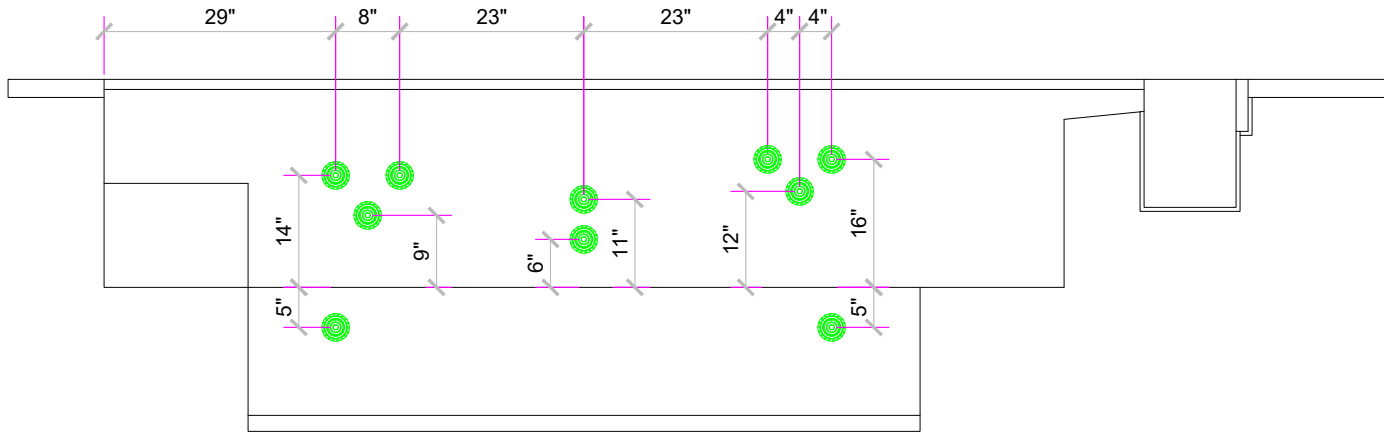
SIZE A	LAYOUT	Tile	DWG COTTON	JOB# 82	REV
SCALE: N/A			DATE: 1/21/2020	SHEET	2 OF 8



**APPROVED**



SIZE A	LAYOUT Jet Detail	DWG COTTON	JOB# 82	REV
SCALE: 1/2" = 1'		DATE: 1/21/2020	SHEET 3 OF 8	

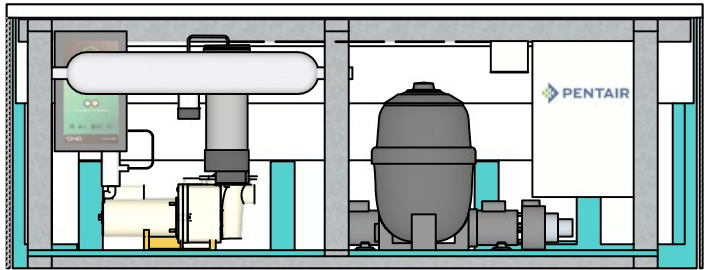
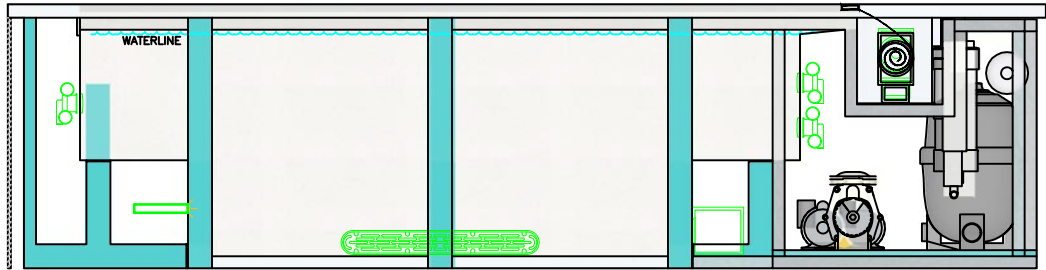
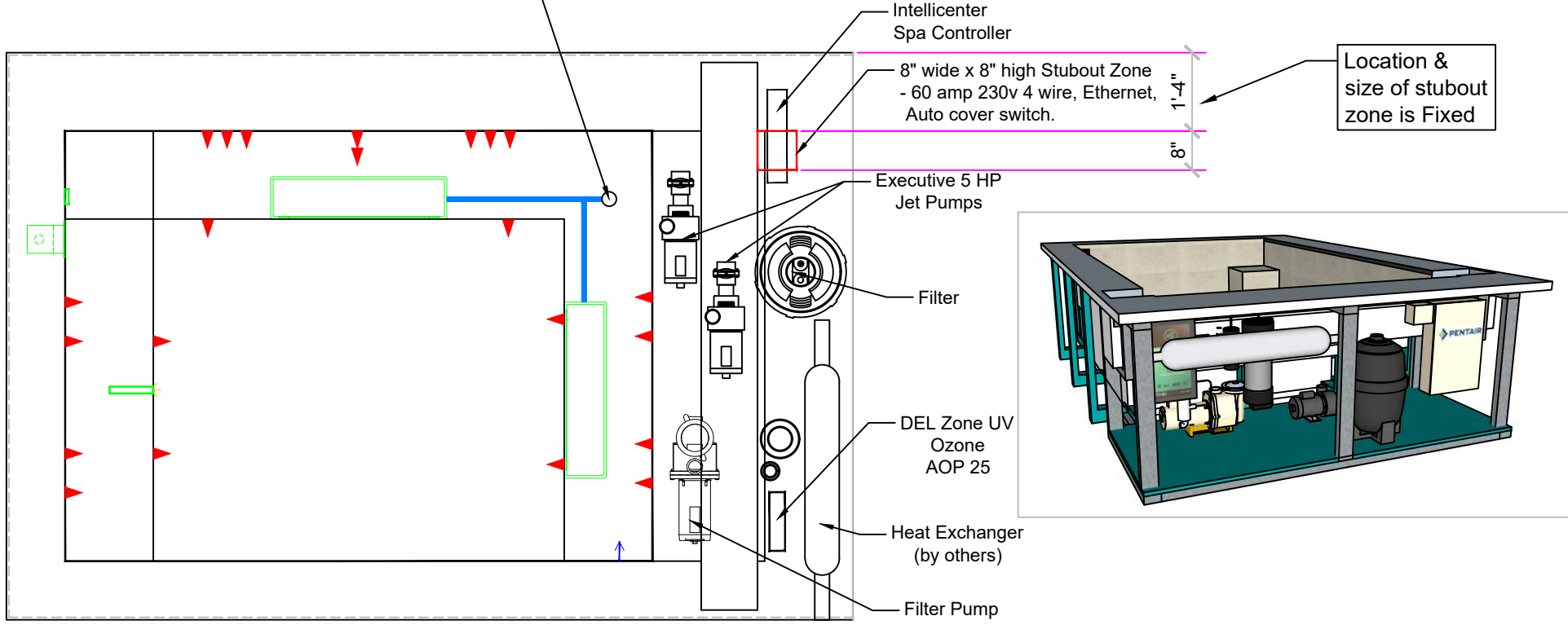


**APPROVED**



SIZE A	LAYOUT Jet Detail (2)	DWG COTTON	JOB# 82	REV
SCALE: 1/2" = 1'		DATE: 1/21/2020	SHEET 4 OF 8	

Dedicated drain - 1.5" Pipe from each sump located as low as possible into a 2" Tee and Valve



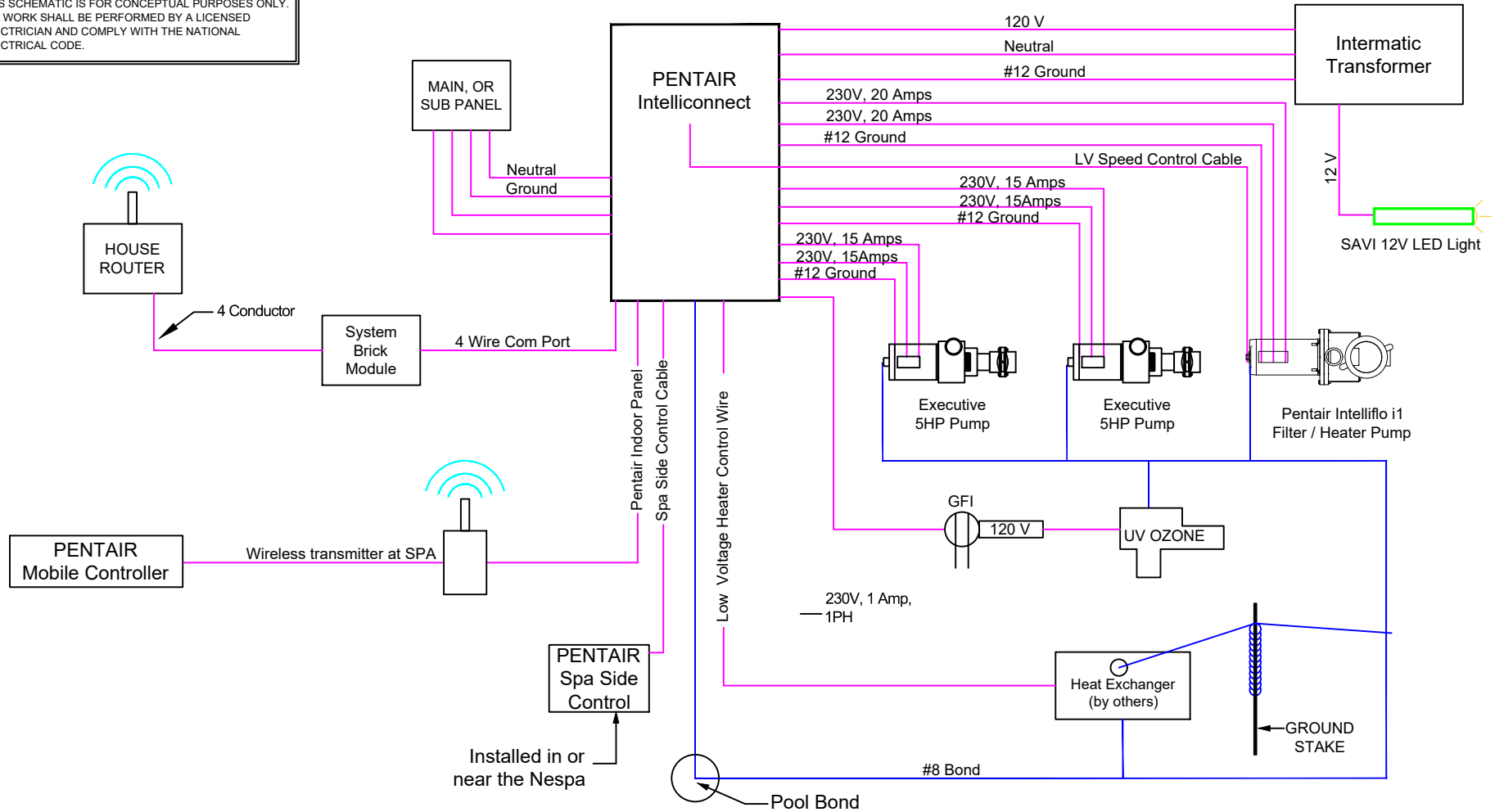
**APPROVED**



SIZE A	LAYOUT	EQ	DWG	COTTON	JOB# 82	REV
SCALE: 3/8" = 1'			DATE: 1/21/2020	SHEET 5 OF 8		

# Pentair Intelliconnect w/screenlogic 3 Pump - Heat Exchanger Low Voltage Light

**NOTE:**  
THIS SCHEMATIC IS FOR CONCEPTUAL PURPOSES ONLY.  
ALL WORK SHALL BE PERFORMED BY A LICENSED  
ELECTRICIAN AND COMPLY WITH THE NATIONAL  
ELECTRICAL CODE.



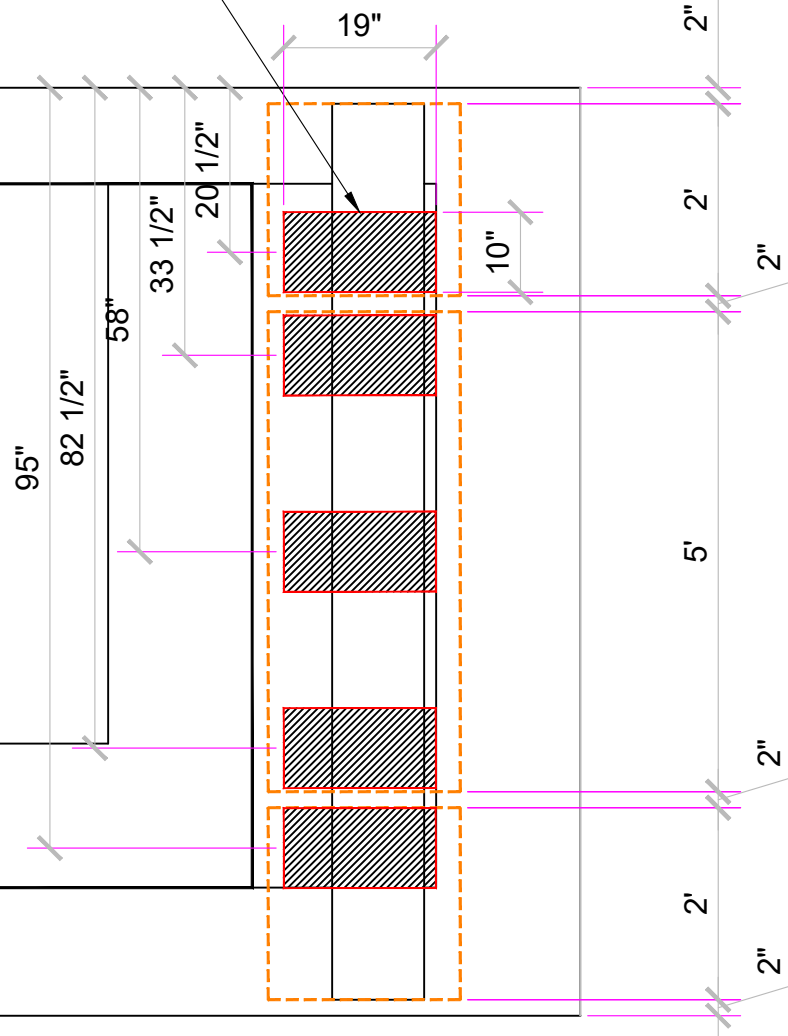
**APPROVED**



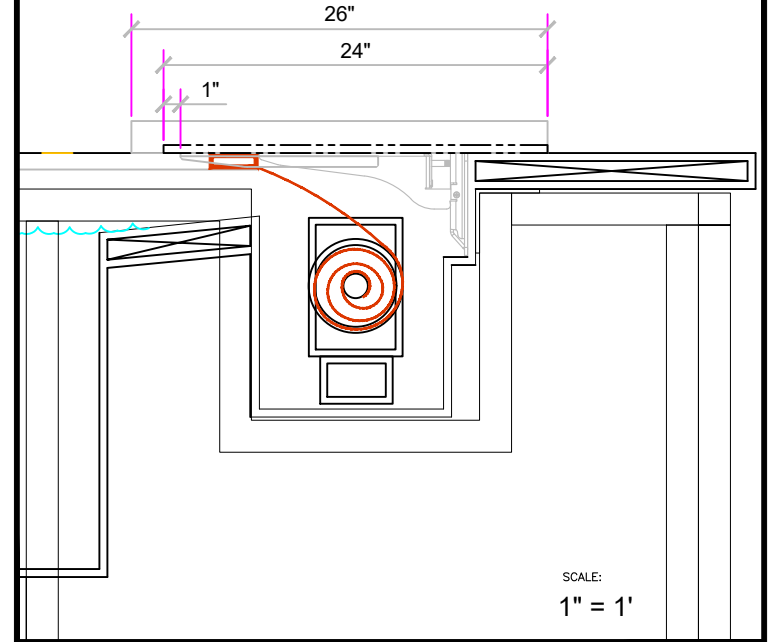
SIZE A	LAYOUT Electrical	DWG COTTON	JOB# 82	REV
SCALE: N/A		DATE: 1/21/2020	SHEET 6 OF 8	



(5) Brackets 10" x 19"



SCALE:  
1/2" = 1'



SCALE:  
1" = 1'

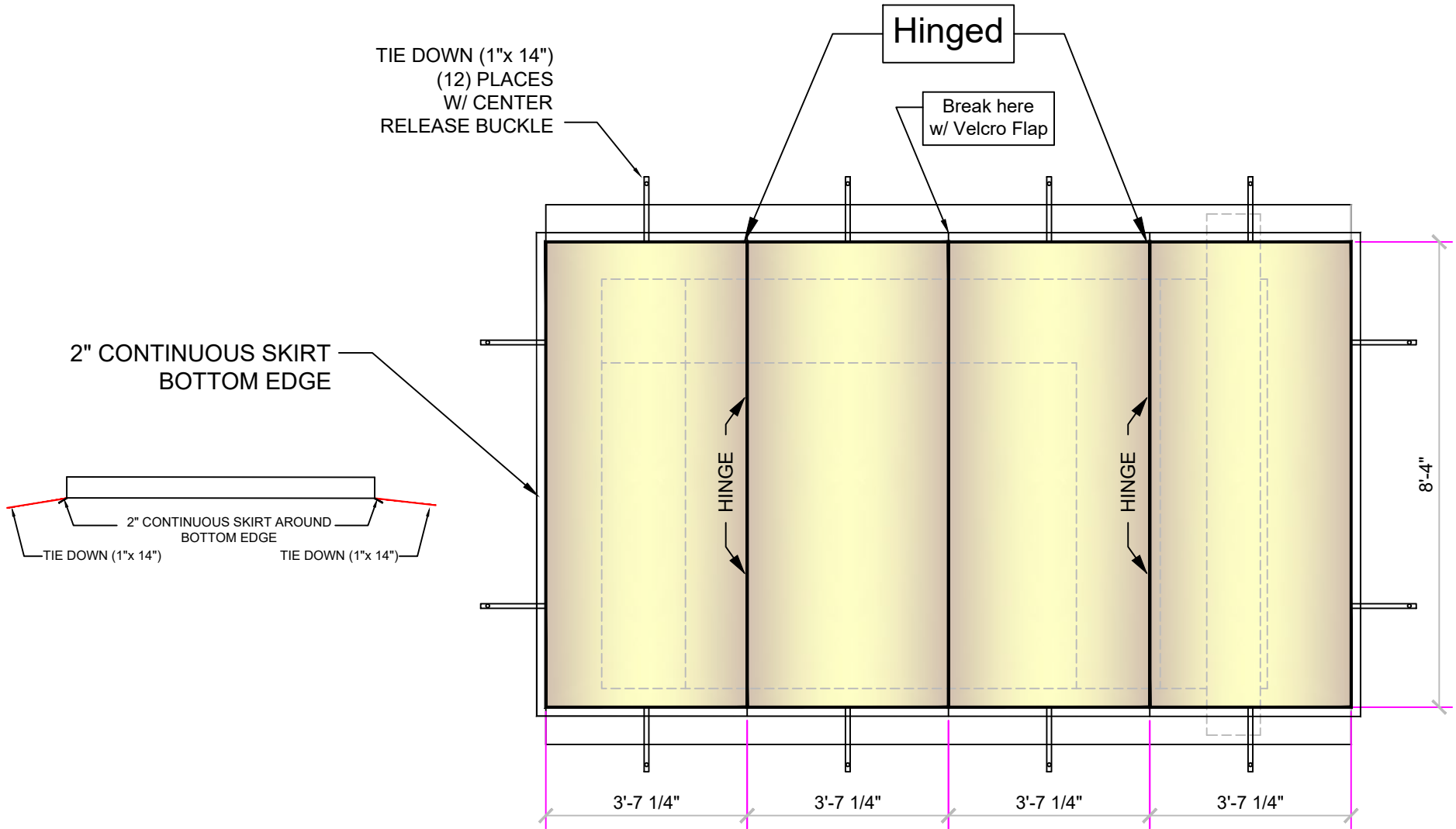
CoverStar Auto-Cover  
Color = Grey

**APPROVED**



SIZE A	LAYOUT AUTO-COVER	DWG COTTON	JOB# 82	REV
SCALE: AS NOTED		DATE: 1/21/2020	SHEET 7 OF 8	

4 Piece Insulated Cover :  
 (4) 3'-7.25" X 8'-4" X 4" Thick



**APPROVED**



SIZE A	LAYOUT Cover	DWG COTTON	JOB# 82	REV
SCALE: 3/8" = 1'		DATE: 1/21/2020	SHEET 8 OF 8	

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REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED

## Installed in more pools worldwide than any other variable speed pump.

RELIABILITY AND SAVINGS. THAT'S WHY POOL BUILDERS, RETAILERS AND SERVICE PROFESSIONALS COUNT ON PENTAIR.



The new keypad is rotatable for easy access and has an optional wall mount kit that's sold separately.

### i1 THE WORLD'S MOST POPULAR VARIABLE SPEED PUMP IS ALSO MORE VERSATILE.

If your pool is in an area that restricts the rate of flow on replacement pumps, the IntelliFlo® i1 Pump may be your ideal choice. Its hydraulic design reduces flow rates while providing the significant energy savings you'd expect from a Pentair variable speed pump. The i1 pump also has a maximum rating of 7 amps, which helps make retrofits easier in applications that are limited by existing wire gauge size. Plus, it's just as quiet and reliable as ever.

### i2 THE PUMP GIVES YOU ALL THE FEATURES YOU WANT AND THE SMARTER CHOICES YOU NEED.

The IntelliFlo i2 pump provides all the great features that have made our flagship IntelliFlo pumps the best-selling industry standard. But, the IntelliFlo i2 pump is hydraulically engineered to provide maximum performance on a 15-amp breaker. It has a maximum rating of 11.8 amps, which makes retrofits easier in applications that are limited by existing wire gauge size. Energy efficient, automation ready and technologically advanced—now that's a smart choice.

## Super efficient—and so quiet you can hear the savings pile up.

ADVANCED ENGINEERING DELIVERS WHISPER-QUIET OPERATION.

Quiet means you enjoy a more relaxing, satisfying pool and spa experience. That's why we worked so hard to make the IntelliFlo® i1 and i2 Pumps the quietest pumps on the planet. Each model has a totally enclosed, fan-cooled (TEFC) design and a permanent magnet motor that virtually eliminates unpleasant, high-pitched noise. At low speeds, you might not even know it's operating.



**AN ECO SELECT® BRAND PRODUCT**  
The IntelliFlo® i1 and i2™ are powered by the Eco Select® brand, distributed as one of the "3 in 1" and "1 in 2" models of IntelliFlo pumps. Eco Select products are designed to help you save energy costs on water, reduce noise, or otherwise contribute to a more sustainable, responsible equipment system.



The ENERGY STAR® certified IntelliFlo® i1 and i2™ pumps are the most efficient energy conserving pumps in the U.S. Environmental Protection Agency and U.S. Department of Energy. These pumps save money, reduce energy use and protect the environment.



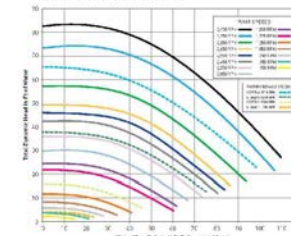
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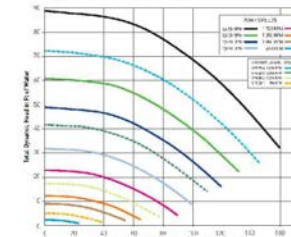
pumps • filters • heaters • heat pumps • automation • lighting • cleaners • sanitizers • water features • maintenance products

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IntelliFlo i1 Performance Curves



IntelliFlo i2 Performance Curves



10°C. This chart provides variable performance curves of factory tested pumps at 3500 RPM, 1500 RPM, 1000 RPM and 500 RPM. Flow rates can also be custom programmed between the range of 400 RPM and 2400 RPM.

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SIZE A	LAYOUT Filter Pump	DWG COTTON	JOB# 82	REV
SCALE: N/A		DATE: 1/17/2020	SHEET 1 OF 1	

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REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED



**PENTAIR**

WHISPERFLO®

# WHISPERFLO®

## HIGH PERFORMANCE PUMP

# WHISPERFLO®

## HIGH PERFORMANCE PUMP

Cam and Ramp™ Lid makes inspection and cleaning easy and quick

Heavy-duty threading for dependable worry-free connections

Durable, commercial-grade motor never needs lubrication

Oversized strainer basket extends time between cleanings




**THE INDUSTRY STANDARD BY EVERY MEASURE**

We call it the WhisperFlo pump for good reason. This innovative hydraulic design moves water more efficiently and more quietly than competitive pumps. Under typical operating conditions, the WhisperFlo pump offers the highest water flow of any high performance pump—yet with the lowest electricity consumption. And, the WhisperFlo pump is designed to be a tireless workhorse. Its engineered thermoplastic housing withstands extreme heat and resists corrosion. The commercial grade motor frame has a rustproof, stainless steel motor shaft and sealed bearings that never need lubrication. Engineered to provide optimum performance in any size pool or pool and spa combination, the WhisperFlo pump is built to last a lifetime, and as a result, has become the industry's top seller for years.

The WhisperFlo pump costs less to operate, because it uses less horsepower to produce required water flow.

- Specially-engineered design assures whisper-quiet operation.
- Oversized strainer basket extends time between cleanings.
- See-through lid makes inspection fast and easy—engineered polymer remains clear and strong for years.
- The user-friendly Cam and Ramp™ Lid is easy to remove and quickly locks in place with a quarter-turn.

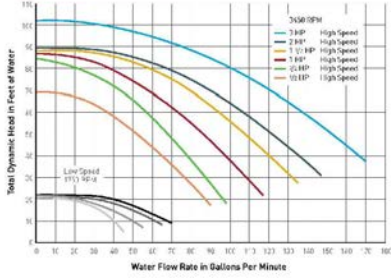
[pentairpool.com](http://pentairpool.com)

**QUIET. EFFICIENT. DURABLE.**

The WhisperFlo pump delivers maximum circulation efficiency at the lowest operating cost, and long, trouble-free life with minimal maintenance. Our legendary hydraulic design has been refined over 40 years for superior performance. No wonder more than 2 million Pentair pumps have been selected by pool professionals.

- Advanced FunnelFlo™ Diffuser and high-efficiency impeller maximize water flow and energy efficiency while minimizing turbulence and noise.
- Energy-efficient motor with commercial-grade frame, rustproof stainless steel shaft and permanently lubricated, sealed bearings for long life.
- Available in single-speed and two-speed models.
- Ideal for pool and spa combinations and for operating in-floor cleaning systems.

**PERFORMANCE CURVES**




**AVAILABLE FROM:**

**PENTAIR**

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SIZE	LAYOUT	DWG	JOB#	REV
A	Booster Pump	COTTON	82	
SCALE: N/A		DATE: 1/17/2020	SHEET 1 OF 1	

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REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED



**System:2 Mod Media™**  
PLM Series Aboveground Systems  
by Sta-Rite



**Greatest capacity for least maintenance**

The System:2 Mod Media system from Sta-Rite is the ultra-capacity filter ideally suited for aboveground pools. The Mod Media system handles dirt loads up to 15 times greater than sand filters of equivalent size. Balanced flow tank hydraulics direct water through each side of the filter module for uniform dirt loading. This prevents clogging and captures more dirt between cleanings to minimize maintenance time.

You may go an entire season before you need to clean your PLM aboveground filter.

- You won't clean often, but it's easy when you do—just rinse in place with a garden hose.
- Quiet, highly efficient pump options keep operating costs low.
- Compact design fits easily in tight installations.



The Mod Media system strips away particles as small as 70 microns, (an average grain of beach sand is 100 to 2000 microns in diameter).



**System:2 Mod Media™**  
PLM Series Aboveground Systems



- Top-mounted pressure gauge and information panels are positioned for easy reading
- Split tank design permits rinse-in-place cleaning—super simple to achieve thorough cleaning fast
- Post-Ring® Closure is easy to secure every time and lasts for years
- System available with Sta-Rite® OptiFlo® Series aboveground pumps

**Spray-and-go simplicity**



The System:2 Mod Media system features a one-piece filter module that simply drops into the easily accessible tank. It's foolproof! When cleaning is necessary, just remove the lid (no tools are needed) and spray-rinse the module while it is still in place.\* It only takes minutes to clean thoroughly and get back into service fast.

**Convenience and versatility**

The Mod Media systems small diameter footprint is the perfect fit for new and retrofit installations. Interchangeable ports provide multiple plumbing options and the modular filter tank permits quick change of filter media. Contemporary styling and matte black finish appear attractive in any pool setting.

\*Modules used in conjunction with certain pool/spa sanitizers may require soaking in special cleaning solutions.

**Filter Performance**

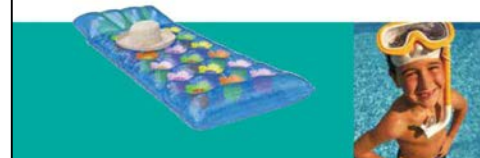
Model	Pump (HP)	Filter Area (Sq. Ft.)	For Pools up to (Gal.) 8 Hr. Turnover
SFPUM100CE	1	100	48,000
SFPUM100CF	1.5	100	48,000
SFPUM150CE	1	150	72,000
SFPUM150CF	1.5	150	72,000

**Operating Limits** – Maximum continual operating pressure is 50 PSI. For Pool/Spa (baler) applications, the maximum operating water temperature within the filter is 100°F (40°C).  
Note: Turnover capacity based on filter.

**Available from:**



www.staritepool.com  
Phone: 800-831-7133



pumps / filters / heaters / heat pumps / automation / lighting / cleaners / sanitizers / water features / maintenance products

All filter accessories and spgs are owned by, or are one of the globe attributes Sta-Rite® OptiFlo®, OptiFlo™, OptiFlo™ and Post-Ring® are trademarks and/or registered trademarks of the Sta-Rite Pool and Spa Inc. and/or its affiliated companies in the United States and/or other countries. Because we are constantly improving our products and services, Sta-Rite reserves the right to change specifications without prior notice. Please call us if you are a customer.

4/14 Part # P1-7/2

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**APPROVED**



SIZE <b>A</b>	LAYOUT	Filter	DWG <b>COTTON</b>	JOB# <b>82</b>	REV
SCALE: <b>N/A</b>			DATE: <b>1/17/2020</b>	SHEET <b>1 OF 1</b>	

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REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED

## SPECIFICATIONS

	DEL AOP 25	DEL AOP 50
VOLTAGE	110/240VAC 50/60 HZ, 1Ø, 0.3 Amps	240 VAC, 60 HZ, 1Ø, 0.6 Amps
PLUMBING	Inlet and Outlet 3/4 inch PVC Socket	Inlet and Outlet 2" PVC Unions
MAX FLOW RATE	20 GPM	50 GPM
MOUNTING	Wall Mount	Floor or Wall Mount
ENCLOSURE	CSA/NEMA 3   Indoor/Outdoor Installation	CSA/NEMA 3   Indoor/Outdoor Installation
DIMENSIONS	16.7" H x 11.9" W x 3.2" D	17" H x 9.5" W x 13.5" D
WEIGHT	9.2lbs	45lbs
UV-C LAMP	Low Pressure/High Output UV-C Germicidal	Low Pressure/High Output UV-C Germicidal
OZONE CELLS	APG Cells; 5 Year Life Expectancy	APG Cells; 5 Year Life Expectancy
MDV UNIT	MDV	MDV XL



DEL AOP uses patented Advanced Plasma Gap™ (APG) ozone cells that last longer and outperform UV and traditional CD style ozone generation.



All DEL products are quality certified through a multi-step process to ensure seamless operation and complete customer satisfaction.



DEL products are environmentally friendly, reduce dependence on chemicals and are safe for every pool.



## COMPLETE YOUR AOP INSTALLATION

By eliminating any possible off-gas, an MDV unit reduces the potential for corrosion or deterioration of pool accessories like a pool cover. It also allows the use of an "oversized" ozone generator to ensure a greater disinfection margin and larger reduction in chemical use. In each MDV a Granulated Activated Carbon (GAC) destruct cartridge destroys excess gas removed by the MDV.

### MDV

When used with the AOP 25 the MDV prevents virtually all ozone bubbles from returning to the pool. It can prevent bubbles from gathering under the cover or inside plumbing.



MDV



MDV XL

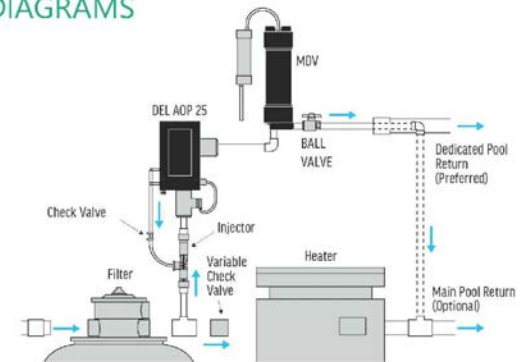
### MDV XL

The MDV XL should be used in all indoor, covered, and vinyl lined pools where there is an AOP 50 installed. It can also be used in outdoor applications to eliminate bubbles in your return flow.

## INSTALLATION DIAGRAMS

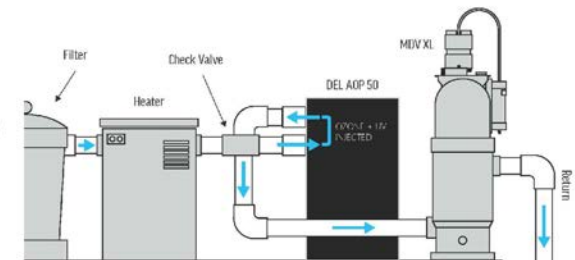
### DEL AOP 25

- Wall Mount Only
- Outlet Installs After Heater
- Injector Included
- 3/4 inch PVC Socket
- MDV Recommended



### DEL AOP 50

- Ground or Wall Mount
- Install after Pump, Filter and Heater
- Variable Speed Check Valve and Injector Manifold are Built into the Unit
- 2" PVC Unions
- MDV XL Recommended



**APPROVED**



SIZE A	LAYOUT Ozone	DWG COTTON	JOB# 82	REV
SCALE: N/A		DATE: 1/17/2020	SHEET 1 OF 1	

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**PLAN APPROVAL DOCUMENTATION** Referring to Nespa Drawings COTTON 01-16-2020

Nespa's engineering and structural manufacturing departments may find it necessary to make slight adjustments (= 1") to your spa. This may include the size of the spa (OD/ID), tile cuts, depths, jet location, bench steps etc. These adjustments must be made in the primary stages of building the spa. The adjustments are generally made to ad structural and aesthetic integrity to the vessel. IE: balance of supporting gussets (exterior) and less tile cuts/ symmetrical cuts, grout lines, etc. (interior)

**Please initial next to the following number that describes your project needs.**

- \_\_\_\_\_ 1. YES, I understand adjustments need to be made. Nespa will use their expertise to make these adjustments as needed. I give them the authority to make changes. I will receive final accurate drawings prior to receipt of spa or spa hole construction (if changes were made to the size)
- \_\_\_\_\_ 2. NO, No changes can be made even under 1". Dimensions are fixed. More tile cuts may be needed, Structural supports may be altered to accommodate.
- \_\_\_\_\_ 3. Nespa will need to contact us for any changes to spa dimensions prior to continued spa fabrication.
- 4. I have reviewed and approved the Spa dimensions, width, length and height.( Pg 1)  
Yes \_\_\_\_\_ No \_\_\_\_\_ Other \_\_\_\_\_
- 5. I have reviewed and approved the Spa Tile Type and Grout ( Pg 2)  
Yes \_\_\_\_\_ No \_\_\_\_\_ Other \_\_\_\_\_
- 6. I have reviewed and approved the Spa Equipment Layout. ( Pg 3)  
Yes \_\_\_\_\_ No \_\_\_\_\_ Other \_\_\_\_\_
- 7. I have reviewed and approved the Vault Details. ( Pg 4)  
Yes \_\_\_\_\_ No \_\_\_\_\_ Other \_\_\_\_\_
- 8. I have reviewed and approved all Spa Light Locations. ( Pg 4)  
Yes \_\_\_\_\_ No \_\_\_\_\_ Other \_\_\_\_\_ Qty of Lights \_\_\_\_\_ Color Light \_\_\_\_\_ or White Light
- 9. Purchaser agrees to provide access for 70 foot flatbed truck curbside or make other arrangements for offloading the spa. Purchaser agrees to provide properly sized crane, grade-all Or any other safe means to offload spa from truck.
- 10. Purchaser is to provide protection to spa finish as well as plumbing during the installation phase. This includes rain, freeze and sun exposure.

Purchaser acknowledges that all previous drawings to this one submitted or discussed no longer apply. Purchaser accepts that all dimensions external to the Nespa product are purchaser's responsibility and that purchaser is responsible for the merging of Nespa product to job site conditions, all required dimensions and elevations and mechanical access. Purchaser also acknowledges that they are responsible for all code compliancy to the Nespa product.

Purchaser acknowledges that maintaining the spa level is critical. Purchaser will provide a level concrete platform surface for spa to sit upon. If shimming material is used purchaser will provide rigid non-compressible material.

I approve the above drawings : X \_\_\_\_\_ Date: \_\_\_\_\_

Any changes to these plans from here forward shall be directed in writing to Nespa.

All drawing dimensions supplied by **Robinson's** are for reference only. All CAD files were created using AutoCAD file (\*.dwg.) and were provided as a service to our customers using AutoCAD. Errors sometimes occur during this process and with software incompatibility upon opening a file. **Robinson's** and / or any authorized distributor of our products will not be held responsible for problems arising from files which have been converted and does not warranty the documents against deficiencies or typographical errors of any kind. We recommend that all measurements are verified with actual physical product before any custom fabrication in the field occurs.



SIZE	LAYOUT	DWG	JOB#	REV
A	Approval	COTTON	82	
SCALE:	N/A	DATE:	1/21/2020	SHEET 1 OF 1

**Robinson Scope- Provide and install on spa :**

Spa Filter Pump 1/2HP 230V/1ph, running load 7A, 15A fused

Booster Pumps (2) 5HP 230V/1ph running load 13A, 20A fused

Spa LED 12v light 12v PX100 120v Transformer

Heat Exchanger and Control Circuit connections by others and tied to by others.

1.) Mounting and connecting the load center and personality kit.

The spa is equipped with an indoor control panel that will need a single 4 strand un-spliced wire pulled to its eventual location to be determined by the customer prior to closing in the walls. This indoor panel plugs directly into one of two com ports available on the P-kit and provides the customer with full wired control of the Spa.

2.) The spa will also have a 4 button spa side remote that will be provided. The spa side controller comes with a 100 foot wire and will be placed on the perimeter of the spa. The wire will enter the vault via conduit and has a specific com port on the P-kit labeled iS4.

3.) In the event that we are hooking up to a home automation control system, an i-link communicator with a 485 connection will be provided. It simply plugs into the com port on the P-kit but will need a wire pulled to the home automation system in the house in order to connect. **OPTIONAL**

4.) Alternatively, If wireless controls are to be achieved using a Pentair Screenlogic brick and the Pentair App, we will need an Ethernet cable pulled to connect from the homes router into the "brick" that we will provide to be placed at the P-kit. (see screenlogic installation manual Appendix D).

5.) Wiring and installing the motor and controller for the auto cover: In the event that the spa is equipped with an auto cover, a control box which will be provided will need to be mounted and wired to a location of the customers choosing. Usually near the indoor panel. This will require proper conduit, wiring and mounting. The auto cover motor will also need to be wired.

**GC to Provide :**

1.) Electrical source and connection to to Pentair Control center. 230V 1PH 4 wire 60 amps. Provide and install the proper amperage Main disconnect, ground ring and bonding, this includes pulling power from source, trenching, link seals, conduit and everything associated according to current NEC standards.

2.) Ethernet wire for remote app control.

3.) Conduit and wire for remote auto cover switch location.

4.) Pull enough power for and install a 120v strip of outlets and a light to be placed in the vault in order to accommodate a sump pump and a ventilation fan. Power supply to vault for sump pump, lighting and any ventilation needs.

5.) Heat Exchanger and Control Circuit connections by others and tied to by others.

6.) **IF** the spa is equipped with an optional indoor control panel that will need a single 4 strand un-spliced wire pulled to its eventual location to be determined by the customer prior to closing in the walls. This indoor panel plugs directly into one of two com ports available on the P-kit, and provides the customer with full wired control of the spa. The spa will also have a 4 button spa side remote that will be provided. The spa side controller will be placed on the perimeter of the spa. The wire will enter the vault via conduit and has a specific com port on the P-kit labeled IS4.

7.) In the event that we are hooking up to a home automation control system, an i-link communicator with a 485 connection will be provided. It simply plugs into the com port on the P-kit but will need a wire pulled to the home automation system in the house in order to connect.

Alternatively, If wireless controls are to be achieved using a Pentair Screenlogic brick and the Pentair App, we will need an Ethernet cable pulled to connect from the homes router into the "brick" that we will provide in the vault.

ITEM #2 approved.



SIZE	LAYOUT	DWG	JOB#	REV
A	Scope Of Work	COTTON	82	
SCALE:	N/A	DATE:	1/21/2020	SHEET 1 OF 1



# STANDARD NESPA IN-GROUND INSTALLATION *INSTRUCTIONS* **SET-UP AND EXCAVATION**

**Prerequisites:** Before installing your Nespa spa. You may be required to acquire a permit from your local State, County, and City building dept and or Health department. (Commercial jobs need Health Dept. Approval). Your spa installation must comply with the most current codes. ( **Uniform Swimming Pool, Spas & Hot Tub Code 2006 ( USPC 2006)**).

**Spa drawings:** Request from Nespa a current spa specific construction detail, plan and section, spa plumbing detail.

**Delivery Access:** Clearly determine the method of getting the spa to jobsite and into the hole. This may require the use of a crane, forklift, hoist, backhoe and/or manpower etc.

- 1) The following instructions are general guidelines and may not apply to your specific jobsite conditions. When excavating for your spa remember to provide for plumbing and light connection clearances. In order to determine how to excavate for your spa or swim spa, measure spas outside dimension ( O.D.) and add minimum 3” to all sides. This 3” clearance is to accommodate jet and suction plumbing. This 3” clearance can change or be reduced upon request. Note: skimmer location, this area may have to be larger than 3”, if commercial 22”.
- 2) **Freeze Climates-** If the spa is place into a vault (typical of freeze climates) a standard 18” or more of clearance minimum from spa perimeter should be provided. This dead air space is for possible future access to spa plumbing in case of a freeze. Area drain is mandatory. **Ask your local installer** for his experienced opinion. Do not hesitate to call us because we want to be sure that your installation progresses as smoothly as possible. If you have questions call us. (888) 479-4677.
- 2) **Hole depth** is determined by spa’s outside height dimension. This height may vary depending if spa has skids or no skids. The spa lip may be finished or non- finished. How is the perimeter deck elevation transitioning to the spa? Focus on the finish surrounding deck elevations, thickness of the finish material on spa upper horizontal lip, equal to lip or under the spa lip. This material can be tile, stone, concrete or brick.
- 3) **Preplumb** the spa before it goes into the hole. If there are needs for electrical , bonding or control conduits run them as well before dropping in hole. Connect bond wire to niche would be best.
- 4) **Spa should sit on level 3 ½” thick reinforced concrete pad. Sweep debris off pad prior to dropping in hole.**
- 5) **Install spa** into the hole on top of concrete pad. Use the Eye bolts provided for crane, forklift etc. rigging. Do not hold onto pipes. Use caution with suction and jet plumbing when lowering into hole. **DO NOT STRESS FITTINGS!** Fill Spa with water and check for leaks prior to backfill.

- 6) **Check site reference** points for proper spa positioning (i.e., squaring to house, garage, etc.).
- 7) **Shim to level spa.** Shim with non-compression able material. Re square to house, or ref. point.
- 8) **Dry pack** with cement the gaps that have been created when shimming spa level.
- 9) **Connect pipes to tees** if spa is preplumb. Installers properly support your new plumbing from stressing spas preplumb fittings. After electrical conduit and bond wire is connected to light niche, water test spa before back filling with sand.  
**NOTE: All Nespa products are water tested prior to leaving factory.**

### **ELECTRICAL:**

- 1) All electrical connections to spa or equipment should comply with the most recent national electrical code (NEC), state and local codes.
- 2) Connect electrical conduit to light niche. This work should be done or reviewed by a licensed electrician.
- 3) To install spa light you will need to include inside the PVC conduit to the light niche a solid #8 coated copper wire. (If you are use brass conduit, internal bond wire is not required.) This bond wire should be pulled with the light cord at the same time. This bond wire needs to be attached to the internal bonding lug of the light niche. An approved encapsulate should be applied to bond wire connection in niche.
- 4) An external #8 copper wire shall be connected to the external bonding lug on the rear of the light niche. This copper wire can then be used for additional bonding requirements (i.e., handrails or any other metallic object within 5' of the spa.

### **PLUMBING:**

- 1) **When plumbing a Nespa it is important to properly size the plumbing. We highly recommend that you follow the pump manufacturer's pipe sizing requirements and Uniform Swimming Pool, Spas & Hot Tub Code 2006 ( USPC 2006). This code book is available at [www.JAPMO.org](http://www.JAPMO.org) or (909) 472 4100.**
- 2) The jet air venturi should be a Hartford loop design adjacent to spa shell and air entry point can be located next to spa or remotely at equipment.
- 3) Fill spa with water and test the system for leaks PRIOR to backfilling with sand.

### **SAND BACK FILL:**

- 1) **With water in spa, back-fill around spa perimeter with dry plaster sand and wet wash with hydraulic attachment to hose. Let set for one hour and hydraulic dry again. Be sure water level in spa is at the highest level. Any questions please call us. ( 888) 479-4677.**
- 2) **If spa is free standing on elevated deck or a structure, it is important to fill spa with water and load area prior to installing coping or perimeter decking. If spa is installed in a vault situation a area drain is needed.**

**NESPA ENTERPRISES INC.**

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**IN-GROUND**

**INSTALLATION**

\*ALL DIMENSIONS SUBJECT TO 1/4" TOLERANCES\*

SCALE: 1/2" = 1'-0"

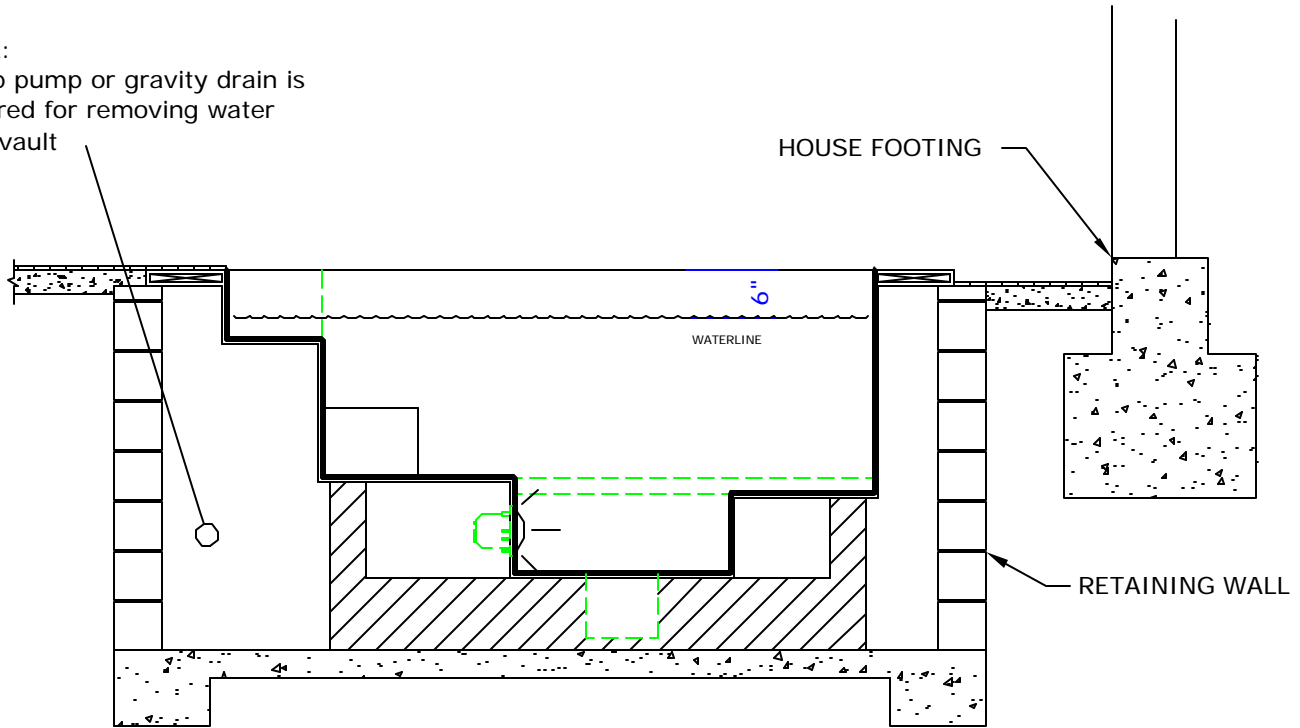
DATE: 3/27/02

JOB : STANDARD INSTALL

DW #: SI-1, SI-2

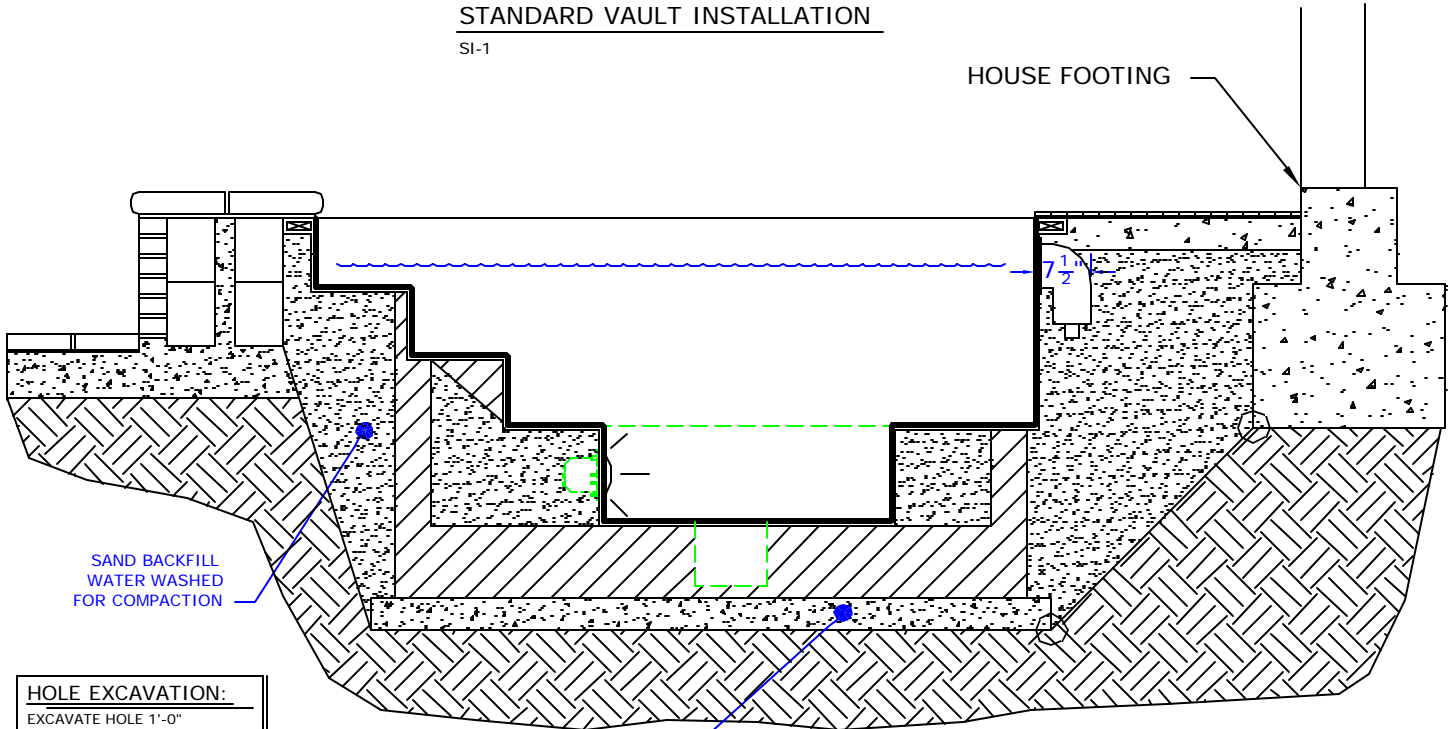
**NOTE:**

Sump pump or gravity drain is required for removing water from vault



**STANDARD VAULT INSTALLATION**

SI-1



**HOLE EXCAVATION:**  
EXCAVATE HOLE 1'-0"  
LARGER THAN THE OUTSIDE  
DIAMETER (OD) OF SPA

4" CONCRETE SLAB  
REINFORCED WITH  
#10 MESH

**STANDARD INGROUND INSTALLATION**

SI-2

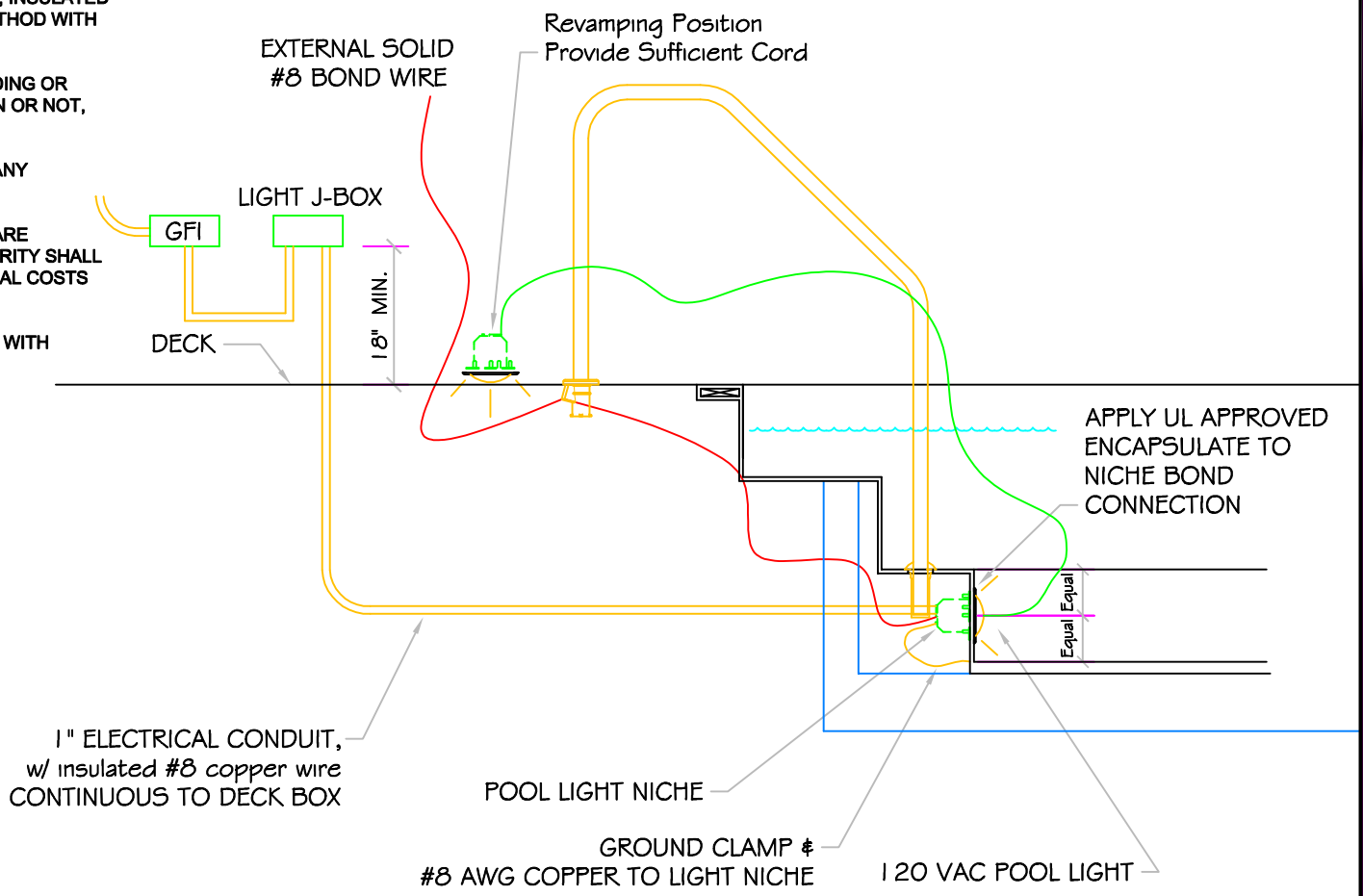
**NOTE:**

Footing can not surcharge spa.  
Slope from bottom of slab to  
nearest corner of house footing  
must not exceed 1" = 1".

# POOL BONDING REQUIREMENTS:

1. THE FOLLOWING PARTS SHALL BE BONDED TOGETHER AND CONNECTED TO THE COMMON BONDING GRID.
  - A. ALL THE METALLIC PARTS OF THE POOL STRUCTURE INCLUDING COPYING STONES, DECK, PERMANENT PLAY STRUCTURES, PERMANENT EXERCISE STRUCTURES.
  - B. ALL METAL FITTINGS WITHIN OR ATTACHED TO THE POOL STRUCTURE
  - C. METAL PARTS ASSOCIATED WITH THE POOL WATER CIRCULATING SYSTEM, INCLUDING PUMPS, FILTERS, AND HEATERS.
  - D. METAL PARTS ASSOCIATED WITH POOL COVERS
  - E. METAL SHEATHED CABLES AND RACEWAYS, METAL PIPING AND ALL FIXED METAL PARTS WITHIN 5 FEET HORIZONTALLY OF INSIDE WALLS OF POOL AND WITHIN 12 FEET ABOVE MAXIMUM WATER LEVEL OF POOL.
  - F. METAL PARTS ASSOCIATED WITH OBSERVATION STANDS, TOWERS, PLATFORMS, AND DIVING STRUCTURES.
2. BONDING CONDUCTORS SHALL BE MINIMUM #8 SOLID COPPER, INSULATED E.C. SHALL COORDINATE APPROVED CONNECTOR TYPE AND METHOD WITH LOCAL ELECTRICAL AND/ OR POOL INSPECTOR.
3. SPECIFIC MANUFACTURER'S INSTRUCTIONS REGARDING BONDING OR GROUNDING OF POOL EQUIPMENT, WHETHER INDICATED HEREIN OR NOT, SHALL BE STRICTLY FOLLOWED.
4. THE COMMON BONDING GRID SHALL NOT BE CONNECTED TO ANY ELECTRICAL DISTRIBUTION EQUIPMENT.
5. ANY PARTS IN ADDITION TO THOSE DESCRIBED HEREIN THAT ARE INDICATED BY POOL CONTRACTOR OR LOCAL INSPECTION AUTHORITY SHALL BE BONDED TO THE COMMON BONDING GRID WITH NO ADDITIONAL COSTS INCURRED BY THE OWNER.
6. THE ELECTRICAL CONTRACTOR SHALL COORDINATE BONDING WITH GENERAL CONTRACTOR.

# LIGHT DETAIL



\*ALL DIMENSIONS SUBJECT TO 1/4" TOLERANCES\*

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SIZE A	DWG NAME DETAILS	DWG TYPE Detail
SCALE 1/2" = 1'	DATE 7/24/2008	SHEET PAGE 1 OF 1

## **NESPA ENTERPRISES, Inc. LIMITED WARRANTY**

**This LIMITED WARRANTY covering NESPA products is extended to the ORIGINAL PURCHASER-USER BY NESPA ENTERPRISES Inc.(NESPA), 2800 Richter Ave. Unit C California 95966.**

**NESPA products are thoroughly inspected and tested prior to factory shipment. NESPA warrants to the ORIGINAL PURCHASER-USER that NESPA Spas and Swim Spas will be free of defect in workmanship, accessories and parts, provided said accessories and parts were manufactured by NESPA. NESPA, under this LIMITED WARRANTY, warrants only that its Spas and Swim Spas shall be structurally sound, shall retain their shape, and shall retain water for the warranty period. NESPA warrants the adhesion of tile to fiberglass for a period of three (3) years and structural soundness for ten (10) years. NESPA warrants epoxy grout adhesion for a period of three years. If any such defects appear and are reported within the warranty period, NESPA shall repair or replace such defective parts without charge if an inspection proves the claim.**

**The provisions of the LIMITED WARRANTY shall not apply to tile cracked, split, chipped or damaged after the product has left the factory, nor damage to tile caused by freezing nor to damage, defect, malfunction or failure to conform with the above warranty provisions where the damage, defect, malfunction or failure to conform was caused during shipment or by distributor or by unreasonable use by ORIGINAL PURCHASER-USER including improper water balance and improper sand pack or support.**

**This LIMITED WARRANTY shall not apply to any plumbing, equipment, or installation of spas and Swim Spas and shall not apply to any alterations made to or upon NESPA products except alterations made by NESPA employees or NESPA authorized representatives.**

**This LIMITED WARRANTY is expressly in lieu of all other warranties expressed or implied including the warranties of merchantability and fitness for use and all other obligations or liabilities on NESPA'S part, and NESPA neither assumes nor authorizes any other person to assume for NESPA any other liability in connection with the sale of this NESPA product. This LIMITED WARRANTY shall not apply to this NESPA product or any part thereof which has been subject to accident, negligence, alteration, abuse or misuse. NESPA makes no warranty whatsoever with respect to accessories or parts not manufactured by NESPA.**

**The term "ORIGINAL PURCHASER-USER" as used in this LIMITED WARRANTY shall be deemed to mean that person for whom the NESPA product is originally installed.**

**The LIMITED WARRANTY provided herein and the obligations and liabilities of NESPA hereunder are exclusive and are in lieu of, and buyer and original PURCHASE-USER hereby waive all other remedies, warranties, guarantees or liabilities, expressed or implied, arising by law or otherwise (including without limitation and obligations of NESPA with respect to fitness, merchantability, and consequential damages) or whether or not occasioned by NESPA'S negligence.**

**This LIMITED WARRANTY shall not be extended, altered or varied except by a written instrument signed by NESPA and original PURCHASER-USER.**