



City of Belle Isle SWIMMING POOL PERMIT 2018-03-040

PERMIT MUST BE POSTED ON SITE

Permit Number: 2018-03-040

Issue Date: 3/21/2018

Site Address: **3606 St Moritz St. 32812**

Parcel Number: 17-23-30-4384-02-810

Subdivision:

Class: Residential

Description of Work: **SPA ONLY** → *added to existing pool*

Issued To: MAJESTY POOLS & SPAS

Business Phone: 407 256-6867

Name: HICKEY, ROBERT J

Contractor License: CPC039928

Payment Date & Method: / / 2018

Visa Master Card Amex Discover Check / Money Order # 2253 (13)

Schedule Inspections via Email at: BD scheduling@universalengineering.com

SCHEDULE INSPECTIONS BY 4PM CUT OFF TIME

Inspection Results Will Be Sent Out the Following Business Day

"WARNING TO OWNER: YOUR FAILURE TO RECORD A NOTICE OF COMMENCEMENT MAY RESULT IN YOUR PAYING TWICE FOR IMPROVEMENTS TO YOUR PROPERTY. IF YOU INTEND TO OBTAIN FINANCING, CONSULT WITH YOUR LENDER OR AN ATTORNEY BEFORE RECORDING YOUR NOTICE OF COMMENCEMENT."

BUILDING	INSPECTOR	DATE	COMMENTS
800 Pool Steel & Ground			
810 Pool Deck			
820 Pool Safety			
830 Final			

ELECTRICAL	INSPECTOR	DATE	COMMENTS
840 Rough/underground			
850 Pool Light (optional)			
860 Final			

PLUMBING	INSPECTOR	DATE	COMMENTS
870 Rough/underground			
880 Final			

Inspection requests are to be emailed to BD scheduling@UniversalEngineering.com; a confirmation email will be sent back to you upon scheduling. **Next-Day Inspection requests must be made by 4pm.** Please include the following in your request: Permit #, project address, type of inspection, date of the requested inspection, a contact name & a contact phone number. AM or PM may be requested but cannot be guaranteed.



City of Belle Isle

Universal Engineering Sciences 3532 Maggie Blvd., Orlando, FL 32811
Tel 407-581-8161 * Fax 407-581-0313 * www.universalengineering.com

RECEIVED
MAR 21 2018

Swimming Pool Permit Application

DATE: _____

PERMIT # 2018-03-040

PROJECT ADDRESS 3606 St. Moritz St, Belle Isle, FL 32809 32812

PROPERTY OWNER NAME David Kinnamon PHONE NUMBER _____

Parcel Id Number: 17-23-30-4384-02-810 To obtain this information, please visit <http://www.ocpafl.org/Searches/ParcelSearch.aspx>

SPECIAL CONDITIONS: STRUCTURES MAY NOT ENCROACH INTO ANY EASEMENT OR REQUIRED SETBACK. Survey specific plan required to show compliance with zoning setbacks. **Impervious Surface Ratio Worksheet required;** see Page 2 of this application.

PLANNING & ZONING APPROVAL: 3-27-18 April Fisher 3-27-18
See stamp & signature on following page DATE

Note: this Zoning Approval MAY or MAY NOT be in conflict with your Deed Restrictions.

PLEASE COMPLETE for Building Review (min. of 2 sets of signed/sealed plans required)

Pool Dimensions: SPA ONLY Deck Square Footage: EXISTING Deck Type: concrete

Job Valuation: \$ 50,000.00 WARNING TO OWNER: Your failure to record a Notice of Commencement may result in your paying twice for improvements to your property. A notice of commencement must be recorded if job is \$2500(+) or if A/C Replacement \$7500(+) and posted on the job site before the first inspection. If you intend to obtain financing, consult with your lender or an attorney before recording your Notice of Commencement.

- **REQUIRED!** Residential Swimming Pool Safety Affirmation form

Building Official: [Signature] Date 3-23-18
Verified Contractor's Licenses & Insurance are on file [Signature] Date 3-21-18
NOC ✓

Zoning Fee	\$ <u>165.-</u>
Building Fee	\$ <u>221.-</u>
Review Fee	\$ <u>110.50</u>
1% BCAIB Fee	\$ <u>3.32</u>
1.5% DCA Fee	\$ <u>4.97</u>
Total Permit Fee	\$ <u>504.79</u>

An enforcing authority may not issue a building permit for any building construction, erection, alteration, modification, repair or addition unless the permit either includes on its face or there is attached to the permit the following statement: "NOTICE: In addition to the requirements of this permit, there may be additional restrictions applicable to this property that may be found in the public records of this county, and there may be additional permits required from other governmental entities such as water management districts, state agencies, or federal agencies."

Republic Services is by legal contract the sole authorized provider of garbage, recycling, yard waste, and commercial garbage and construction debris collection and disposal services with the city limits of the City. Contractors, homeowners and commercial businesses may contact Republic Services at 407-293-8000 to setup accounts for Commercial, Construction Roll Off, or other services needed. Rates are fixed by contract and are available at City Hall or from Republic Services. The City enforces the contract through its code enforcement office. Failure to comply will result in a stop work order.

SEPARATE PERMITS ARE REQUIRED FOR ELECTRICAL, PLUMBING, GAS, ENCLOSURES, ETC.

15TH 25 PAID 4-2-18
49x4 196
221 ÷ 2 check 253
110.50
331.50

104250



City of Belle Isle
 Universal Engineering Sciences 3532 Maggie Blvd., Orlando, FL 32811
 Tel 407-581-8161 * Fax 407-581-0313 * www.universalengineering.com

DECEMBER 21 2018

Swimming Pool Permit Application

DATE: _____

PERMIT # 2018-03-040

PROJECT ADDRESS 3606 St. Moritz St, Belle Isle, FL 32809 32812

PROPERTY OWNER NAME David Kinnamon PHONE NUMBER _____

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SPECIAL CONDITIONS: STRUCTURES MAY NOT ENCRoACH INTO ANY EASEMENT OR REQUIRED SETBACK. Survey specific plan required to show compliance with zoning setbacks. **Impervious Surface Calc Worksheet required;** see Page 2 of this application.

PLANNING & ZONING APPROVAL: _____

ZONING APPROVED
 Date: 3/27/18 By: [Signature]
 City of Belle Isle

DATE _____

Note: this Zoning Approval MAY or MAY NOT be in conflict with your Deed Restrictions.

PLEASE COMPLETE for Building Review (min. of 2 sets of signed/sealed plans required)

Pool Dimensions: SPA ONLY Deck Square Footage: EXISTING Deck Type: CONCRETE

Job Valuation: \$ 50,000.00 **WARNING TO OWNER:** Your failure to record a Notice of Commencement may result in your paying twice for improvements to your property. A notice of commencement must be recorded if job is \$2500(+) or if A/C Replacement \$7500(+) and posted on the job site before the first inspection. If you intend to obtain financing, consult with your lender or an attorney before recording your Notice of Commencement.

• **REQUIRED!** Residential Swimming Pool Safety Affirmation form

Building Official: _____ Date _____
 Verified Contractor's Licenses & Insurance are on file _____ Date _____

Zoning Fee \$ _____
 Building Fee \$ _____
 Review Fee \$ _____
 1% BCAIB Fee \$ _____
 1.5% DCA Fee \$ _____
 Total Permit Fee \$ _____

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Swimming Pool Permit Application
 To be completed as required by State Statute Section 713 and other applicable sections.

PERMIT # 2018-03-040

Owner's Name David Kinnamon
 Owner's Address 3606 St. Moritz St

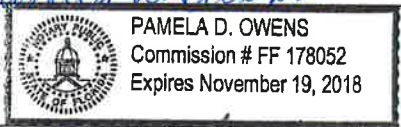
License Holder Name Robert Hickey	Company Name DBA Majesty Pools & Spa
License # CPC039928	Company Address 545 Bison circle
Contact Phone/Cell 407-256-6867	City, State, ZIP Apopka FL, 32712
Contact Email Hickeypools@yahoo.com	Contact Fax

I hereby make Application for Permit as outlined above, and if same is granted I agree to conform to all Division of Building Safety Regulations (www.floridabuilding.org) and City Ordinances (www.municode.com) regulating same and in accordance with plans submitted. The issuance of this permit does not grant permission to violate any applicable City and/or State of Florida codes and/or ordinances. Application is hereby made to obtain a permit to do the work and installations as indicated. I certify that no work or installation has commenced prior to the issuance of a permit and that all work will be performed to meet the standards of all laws regulating construction in this jurisdiction. I understand that a **separate** permit must be secured for all other construction including ELECTRICAL, PLUMBING, GAS, SCREEN ENCLOSURES, ETC.

OWNER'S AFFIDAVIT: I certify that all the foregoing information is accurate and that all work will be done in compliance with all applicable laws regulating construction and zoning.

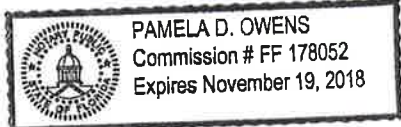
Owner Signature [Signature]
 The foregoing instrument was acknowledged before me this 3/16/2018
 by David Kinnamon who is personally known to me
 and who produced NA
 as identification and who did not take an oath.

Notary as to Owner
 State of Florida
 County of Orange



Contractor Signature [Signature]
 COMPANY NAME DBA Majesty Pools & Spas
 The foregoing instrument was acknowledged before me this 3/16/2018
 by Robert Hickey who is personally known to me
 and who produced N/A
 as identification and who did not take an oath.

Notary as to Owner
 State of Florida
 County of Orange



Impervious Surface Ratio Worksheet
 Development Zoned A-1, A-2, R-1-AAA, R-1-AA, R-1-A, R-1 per City Code, Section 50-74: Impervious Surface Ratio

- Total Lot Area (sqft) X 0.35 = Allowable Impervious Area (BASE).
 Total Lot Area 11252.66 X 0.35 =
 Allowable Impervious Area (BASE) 3988.431
- Calculate the "proposed" impervious area on the lot. This includes the sum of all areas that do not allow direct percolation of rainwater. Examples include house, pool, deck, driveway, accessory building, etc.
 - House 2574.97
 - Driveway 632'
 - Walkway 250
 - Accessory Buildings 259
 - Pool & Spa 364
 - Deck & Patio 290
 - Other _____

Actual Impervious Area (AIA) 4119.97
- If AIA is less than BASE, subtract AIA from BASE to determine the amount of impervious area that may be added without providing onsite retention.
- If AIA is greater than BASE, then onsite retention **must be provided**.

Assuming 7.5 inches of rainfall based on a 24hr 10 year Rain Event (TP40), the formula is: (7.5 inches rainfall/12 inches p/foot) X (result from line 4) = cubic feet of storage volume needed

Permit Number: _____
Folio/Parcel ID #: _____
Prepared by: Patricia Brust

DOCH 20180157073
03/19/2018 02:54:46 PM Page 1 of 1
Rec Fee: \$10.00
Phil Diamond, Comptroller
Orange County, FL
MB - Ret To: ROBERT HICKEY

Return to: Robert Hickey
545 Bison Cir
Apopka FL 32812



NOTICE OF COMMENCEMENT

State of Florida, County of Orange

The undersigned hereby gives notice that improvement will be made to certain real property, and in accordance with Chapter 713, Florida Statutes, the following information is provided in this Notice of Commencement.

- Description of property** (legal description of the property, and street address if available)
Add SPA TO EXISTING POOL, 107281 LAKE CONWAY ESTATE, SEC 5
- General description of improvement**
Add SPA TO POOL, & REFINISH POOL, PLATBOOK 4 PAGE 112 RECORDS ORANGE CO,
- Owner information or Lessee information if the Lessee contracted for the improvement**
Name DAVID KINNAMON
Address 3606 ST MORITZ Belle Isle FL
Interest in Property _____
Name and address of fee simple titleholder (if different from Owner listed above)
Name _____
Address _____
- Contractor**
Name Robert Hickey Majesty Pool Telephone Number 4072561894
Address 545 BISON CIR, APOPKA, FL 32812
- Surety** (if applicable, a copy of the payment bond is attached)
Name _____ Telephone Number _____
Address _____ Amount of Bond \$ _____
- Lender**
Name _____ Telephone Number _____
Address _____
- Persons within the State of Florida designated by Owner upon whom notices or other documents may be served as provided by §713.13(1)(a)7, Florida Statutes.**
Name _____ Telephone Number _____
Address _____
- In addition to himself or herself, Owner designates the following to receive a copy of the Lienor's Notice as provided in §713.13(1)(b), Florida Statutes.**
Name _____ Telephone Number _____
Address _____
- Expiration date of notice of commencement** (the expiration date will be 1 year from the date of recording unless a different date is specified) _____

State of Florida, County of Orange
I hereby certify that this is a true copy of the document as reflected in the Office Records
PHIL DIAMOND, COUNTY COMPTROLLER
BY: Phil Diamond D.C.
DATED: 3/19/18

WARNING TO OWNER: ANY PAYMENTS MADE BY THE OWNER AFTER THE EXPIRATION OF THE NOTICE OF COMMENCEMENT ARE CONSIDERED IMPROPER PAYMENTS UNDER CHAPTER 713, PART I, SECTION 713.13, FLORIDA STATUTES, AND CAN RESULT IN YOUR PAYING TWICE FOR IMPROVEMENTS TO YOUR PROPERTY. A NOTICE OF COMMENCEMENT MUST BE RECORDED AND POSTED ON THE JOB SITE BEFORE THE FIRST INSPECTION. IF YOU INTEND TO OBTAIN FINANCING, CONSULT WITH YOUR LENDER OR AN ATTORNEY BEFORE COMMENCING WORK OR RECORDING YOUR NOTICE OF COMMENCEMENT.

David Kinnamon
Signature of Owner or Lessee, or Owner's or Lessee's Authorized Officer/Director/Partner/Manager

Signatory's Title/Office

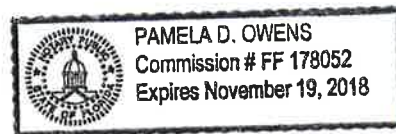
The foregoing instrument was acknowledged before me this 1st day of March 2018 by David Kinnamon
month/year name of person

as _____ for _____
Type of authority, e.g., officer, trustee, attorney in fact Name of party on behalf of whom instrument was executed

Pamela D. Owens
Signature of Notary Public - State of Florida

Pamela D. Owens
Print, type, or stamp commissioned name of Notary Public

Personally Known Y OR Produced ID N/A
Type of ID Produced _____





CITY OF BELLE ISLE, FLORIDA

Universal Engineering Sciences 3532 Maggie Blvd., Orlando, FL 32811
Tel 407-581-8161 * Fax 407-581-0313 * www.universalengineering.com

RESIDENTIAL SWIMMING POOL SAFETY AFFIRMATION

Date: 3/16/18

Address: 3606 ST MORITZ

I, ROBERT HICKEY, License # CPC639928
(print contractor's name)

hereby affirm that the pool will be isolated from access from within the dwelling AND from adjacent properties by a barrier that meets the pool barrier requirements of Florida Statute 515.29 and the 2017 Florida Building Code, Residential Section, Fifth Edition R4501.17.

Check the applicable barrier requirements from the following options and show on the site plan:

The pool will be equipped with an approved safety pool cover that complies with ASTM F1346 (Standard Performance Specifications for Safety Covers for Swimming Pools, Spas and Hot Tubs) per FBC R4501.17, Exception.

The pool will be isolated from access by a mesh safety barrier that meets the requirements of FBC R4501.17.1.15.

The pool will be isolated from access by a screen enclosure that meets the requirements of FBC R4501.17.1.11.

The pool will be isolated from access by a fence and pedestrian gates that meet the requirements of FBC R4501.17.1.1 through 4501.17.1.8.

Does any part of the barrier consist of dwelling walls which contain doors or windows?

Yes No If yes, then check which of the three options below are applicable:

All doors and windows providing direct access from the dwelling to the pool will be equipped with an exit alarm that meets the requirements of FBC R4501.2.17.1.9(1) unless Exceptions a, b or c apply.

All doors providing direct access from the dwelling to the pool will be equipped with self-closing, self-latching devices installed 54" above the threshold that meet the requirements of FBC R4501.2.17.1.9, exception 2.

A floating swimming pool alarm that meets & is independently certified to ASTM Standard F2208 will be provided per FBC R4501.17.1.9(3).



I understand that the above indicated shall be installed before the time of pool safety inspection per FBC R4501.19.

Robert Hickey
(Contractor's Signature)

[Signature]
(Property Owner's Signature)



CITY OF BELLE ISLE, FLORIDA
Universal Engineering Sciences 3532 Maggie Blvd., Orlando, FL 32811
Tel 407-581-8161 * Fax 407-581-0313 * www.universalengineering.com

POWER OF ATTORNEY

Date: _____

Permit #: 2018-03-040

I hereby name and appoint Patricia Brust of _____
(print name)

DBA Majesty Pools & Spa to be my lawful attorney-in-fact to act for
(company name)

me and apply to the City of Belle Isle Building Department for a Spa permit
(type of permit)

for work to be performed at the following location:

3606 St. Moritz St, Belle Isle, FL 32809 32812 and
(street address)

to sign my name and do all things necessary to this appointment.

Certified Contractor's Printed Name: Robert Hickey

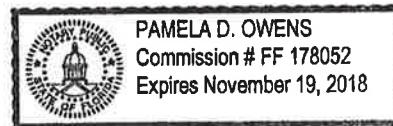
License Number: CPC039928

Certified Contractor's Signature: Robert Hickey

The foregoing instrument was acknowledged before me this 16th days of March of 2018
by Robert J. Hickey who is personally known to me or who produced
N/A as identification and who did not take an oath.

State of Florida
County of Orange

Pamela D. Owens
Notary Public, Orange County, Florida



(seal)

STATE OF FLORIDA
DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION
CONSTRUCTION INDUSTRY LICENSING BOARD



LICENSE NUMBER
CPC039928

The RESIDENTIAL POOL/SPA CONTRACTOR
Named below IS CERTIFIED
Under the provisions of Chapter 489 FS.
Expiration date: AUG 31, 2018

HICKEY, ROBERT J
MAJESTY POOLS & SPAS
545 BISON GIRCLE
APOPKA FL 32712



ISSUED: 07/04/2016

DISPLAY AS REQUIRED BY LAW

SEQ # L1607040001995



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)
03/16/2018

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Winchester Insurance, Inc 1425 W. Broadway (S.R. 42 P.O. Box 620969 Oviedo FL 32762	CONTACT NAME: Lori Forrest	PHONE (A/C, No, Ext): (407) 365-5656	FAX (A/C, No): (407) 366-0031
	E-MAIL ADDRESS: lori@winchesterinsurance.com		
INSURER(S) AFFORDING COVERAGE			NAIC #
INSURER A: Tapco- Lloyds of London			17370
INSURED Hickey & Ellison Construction, Inc. Majesty Pools & Spas 545 Bison Circle Apopka FL 32712-	INSURER B:		
	INSURER C:		
	INSURER D:		
	INSURER E:		
	INSURER F:		

COVERAGES CERTIFICATE NUMBER: REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADOL SUBR INSD LWD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR	<input checked="" type="checkbox"/>	NN817446	07/01/2017	07/01/2018	EACH OCCURRENCE \$ 1,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 100,000 MED EXP (Any one person) \$ 5,000 PERSONAL & ADV INJURY \$ 100,000 GENERAL AGGREGATE \$ 2,000,000 PRODUCTS - COMP/OP AGG \$ 2,000,000
	<input checked="" type="checkbox"/> GEN'L AGGREGATE LIMIT APPLIES PER: <input checked="" type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC OTHER:					
	<input type="checkbox"/> AUTOMOBILE LIABILITY <input type="checkbox"/> ANY AUTO <input type="checkbox"/> ALL OWNED AUTOS <input type="checkbox"/> HIRED AUTOS <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> NON-OWNED AUTOS					COMBINED SINGLE LIMIT (Ea accident) \$ BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$
	<input type="checkbox"/> UMBRELLA LIAB <input type="checkbox"/> EXCESS LIAB OCCUR CLAIMS-MADE DED RETENTION \$					EACH OCCURRENCE \$ AGGREGATE \$
	<input type="checkbox"/> WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	<input checked="" type="checkbox"/> Y/N	N/A			PER STATUTE OTH-ER E.L. EACH ACCIDENT \$ E.L. DISEASE - EA EMPLOYEE \$ E.L. DISEASE - POLICY LIMIT \$
A	<input type="checkbox"/> POP-UP COVERAGE		NN817446	07/01/2017	07/01/2018	Occurrence Limit 50,000 Aggregate Limit 100,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

CERTIFICATE HOLDER	CANCELLATION AI 000594
City of Belle Isle 1600 Nela Ave Belle Isle FL 32809-	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.
	AUTHORIZED REPRESENTATIVE

Fax: (407)240-2222

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JIMMY PATRONIS
CHIEF FINANCIAL OFFICER

STATE OF FLORIDA
DEPARTMENT OF FINANCIAL SERVICES
DIVISION OF WORKERS' COMPENSATION

**** CERTIFICATE OF ELECTION TO BE EXEMPT FROM FLORIDA WORKERS' COMPENSATION LAW ****

CONSTRUCTION INDUSTRY EXEMPTION

This certifies that the individual listed below has elected to be exempt from Florida Workers' Compensation law.

EFFECTIVE DATE: 9/20/2017

EXPIRATION DATE: 9/20/2019

PERSON: HICKEY

ROBERT

J

FEIN: 202378053

BUSINESS NAME AND ADDRESS:

HICKEY & ELLISON CONSTRUCTION, INC.

MAJESTY POOLS & SPAS

545 BISON CIRCLE

APOPKA

FL

32712

SCOPE OF BUSINESS OR TRADE:

Licensed Pool Contractor

Swimming Pool Construction-
Not Iron or Steel -& Drivers

IMPORTANT: Pursuant to Chapter 440.05(14), F.S., an officer of a corporation who elects exemption from this chapter by filing a certificate of election under this section may not recover benefits or compensation under this chapter. Pursuant to Chapter 440.05(12), F.S., Certificates of election to be exempt... apply only within the scope of the business or trade listed on the notice of election to be exempt. Pursuant to Chapter 440.05(13), F.S., Notices of election to be exempt and certificates of election to be exempt shall be subject to revocation if, at any time after the filing of the notice or the issuance of the certificate, the person named on the notice or certificate no longer meets the requirements of this section for issuance of a certificate. The department shall revoke a certificate at any time for failure of the person named on the certificate to meet the requirements of this section.

Scott Randolph, Tax Collector Local Business Tax Receipt Orange County, Florida

This local business tax receipt is in addition to and not in lieu of any other tax required by law or municipal ordinance. Businesses are subject to regulation of zoning, health and other awful authorities. This receipt is valid from October 1 through September 30 of receipt year. **Delinquent penalty is added October 1.**

2017 **EXPIRES 9/30/2018** 1805-1088905
1805 RESIDENTIAL POOL/SPA \$30.00 1 EMPLOYEE ; 5000 BUSINESS OFFICE \$30.00 1 EMPLOYEE ;

TOTAL TAX \$60.00
PREVIOUSLY PAID \$60.00
TOTAL DUE \$0.00

HICKEY & ELLISON CONSTRUCTION INC
HICKEY ROBERT J - QUALIFIER

MAJESTY POOLS & SPAS
HICKEY & ELLISON CONSTRUCTION INC
PO BOX 1251
APOPKA FL 32704

545 BISON CIR.
U - APOPKA, 32712

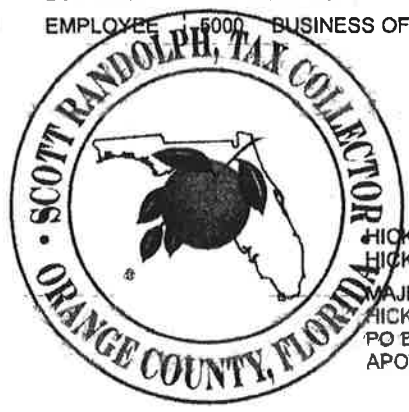
PAID: \$60.00 0098-00800117 8/26/2017

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TOTAL TAX \$60.00
PREVIOUSLY PAID \$60.00
TOTAL DUE \$0.00



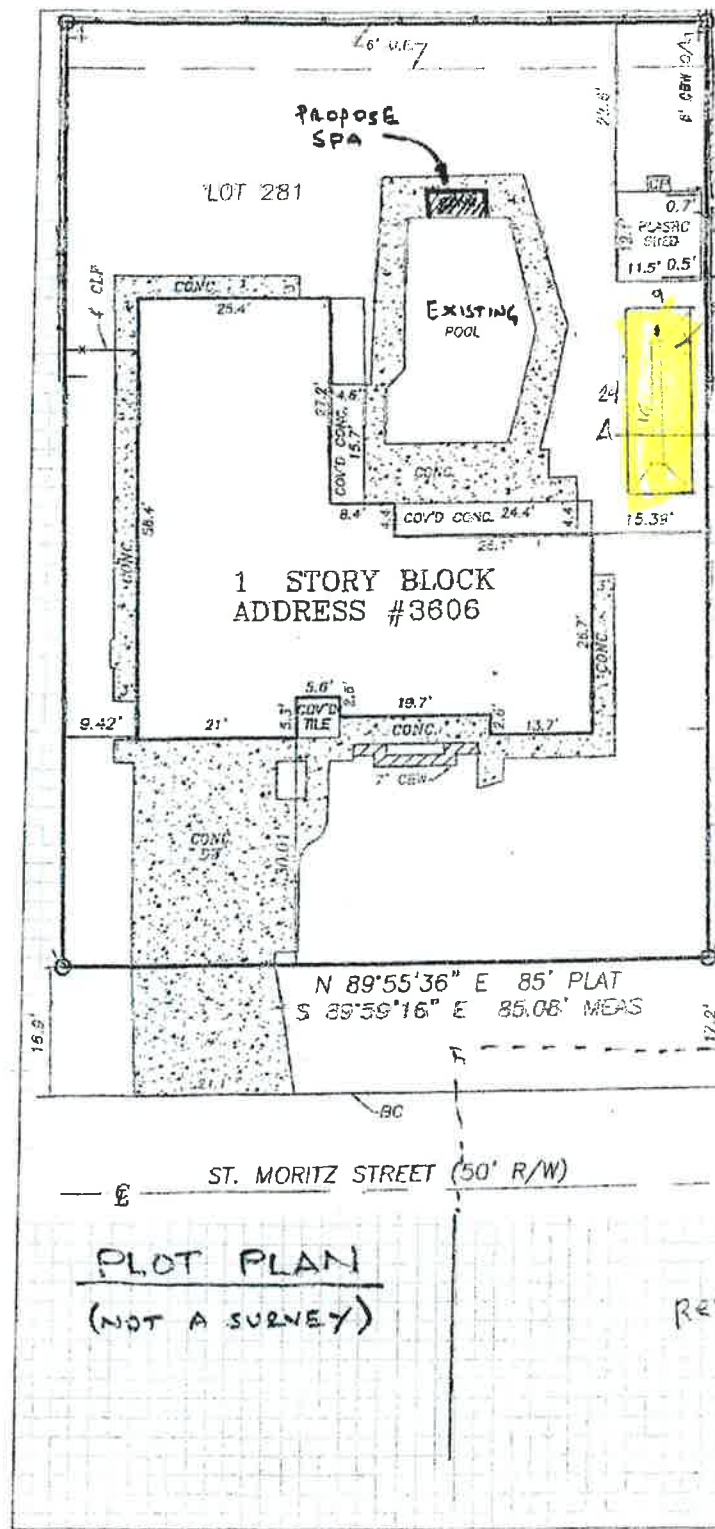
HICKEY & ELLISON CONSTRUCTION INC
HICKEY ROBERT J - QUALIFIER

MAJESTY POOLS & SPAS
HICKEY & ELLISON CONSTRUCTION INC
PO BOX 1251
APOPKA FL 32704

545 BISON CIR
U - APOPKA, 32712

PAID: \$60.00 0098-00800117 8/26/2017

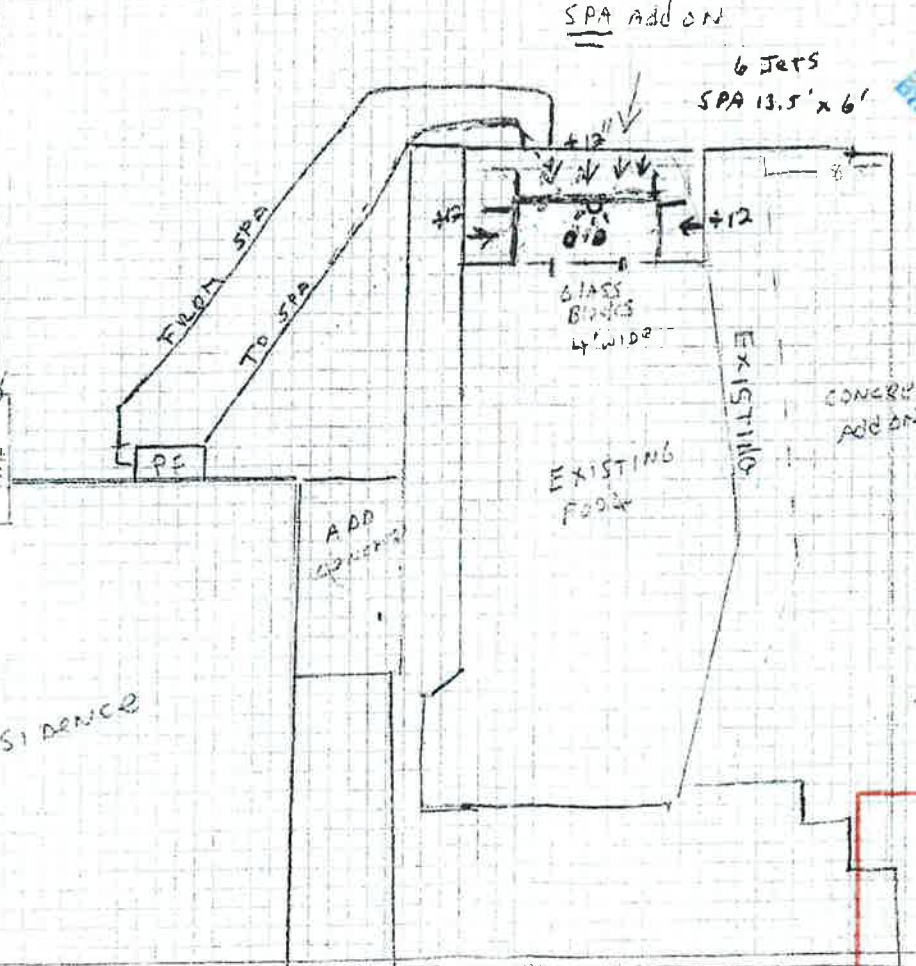
This receipt is official when validated by the Tax Collector.



CONCRETE STORAGE (PER USR WORK SHEET)
 AIA-BASE = 4119.77 - 3738.43 - 171.57
 AREA = 75' x 15.5' / 12.11' x 15.5' = 113.46 FT² REQUIRED. PER. RENDR. 116 FT²
 VOLUME = $\frac{24' \times 9' \times 1'}{2} + \frac{16' \times 12' \times 1'}{2} = 116 FT^3$

ROBERT J. HICKEY
 STATE CERTIFIED #CPC039928
 (407) 886-0121

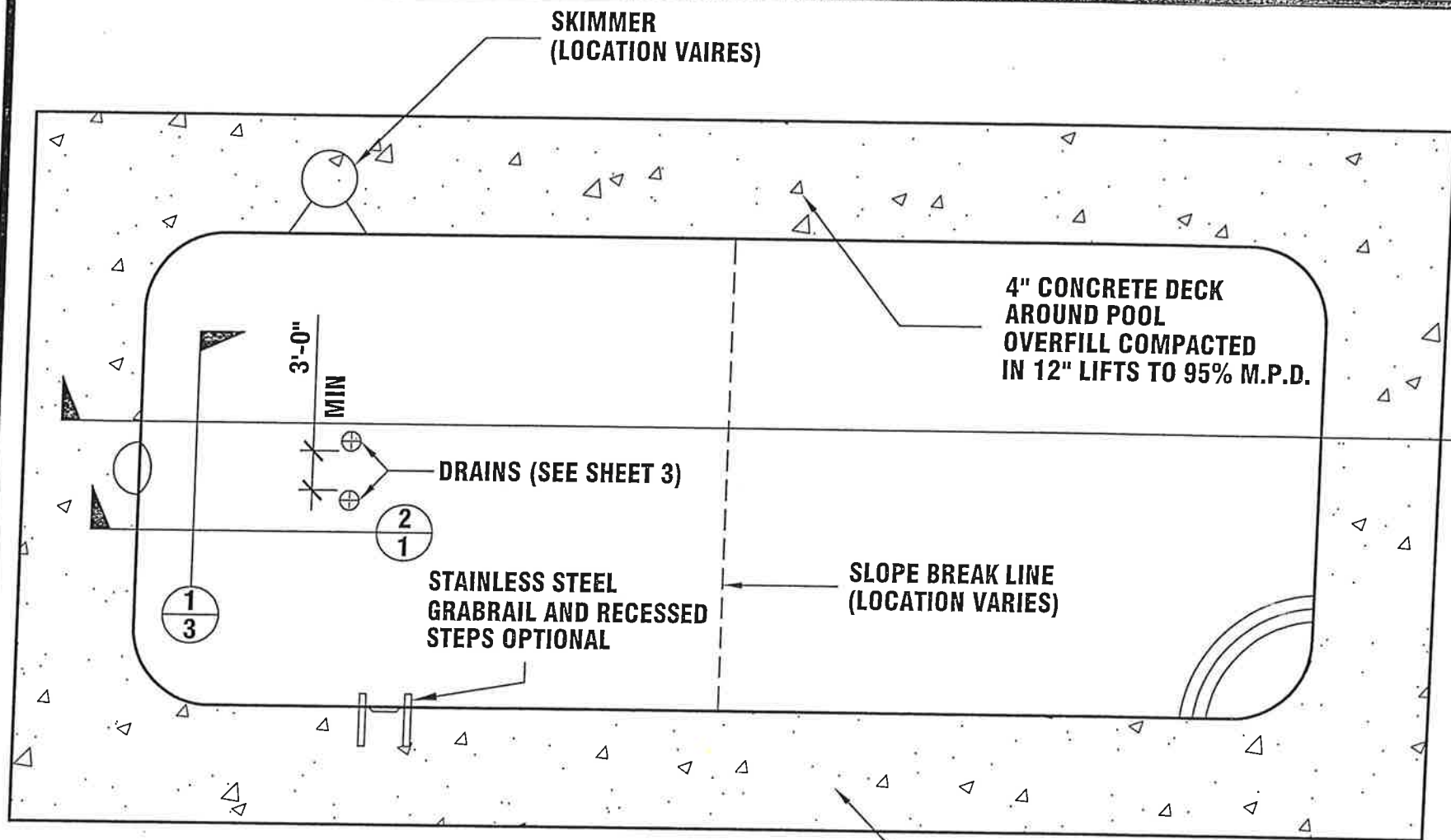
DESCRIPTION
 LOT 281, LAKE CONWAY ESTATES SECTION FIVE, AS RECORDED IN PLAT BOOK Y, PAGE 112, PUBLIC RECORDS OF ORANGE COUNTY, FLORIDA.



SHAPE	SPA RECT.	
POOL	EXISTING.	
GALLONS	13500 POOL & SPA.	
TILE	Bullnose	
FILTER	HAYWARD CART	
PUMP	HAYWARD 1/2 HP POOL HAYWARD 2 HP (SPA)	
MAIN DRAIN	YES SPA.	SKIMMER NA
RETURNS	6 JETS SPA	
CLEAN SWEEP	NA	
LIGHT	Led.	
DECK	Add on AS per plan	
VAC EQUIPMENT	NA.	
TEST KIT	NA.	
BRUSH & POLE	NA.	
START-UP	YES.	
PERMITS	All	
ELECTRICAL	AUTO TIMER.	
ACCESS	By Home owner.	
FENCE	By Home owner.	SCREEN NA
RAILS	By Home owner.	SWINGOUT INSTALL
NAME	DAVID KINNAMON	
ADDRESS	3606 ST MORITZ	
CITY/STATE/ZIP	Belle Isle 328121133	
PHONE	407 6175167	
LEGAL DES	LOT 281	BLOCK
LAKE CONWAY ESTATES SEC FIVE PLAT # PAGE 112		
CUSTOMER SIGNATURE		

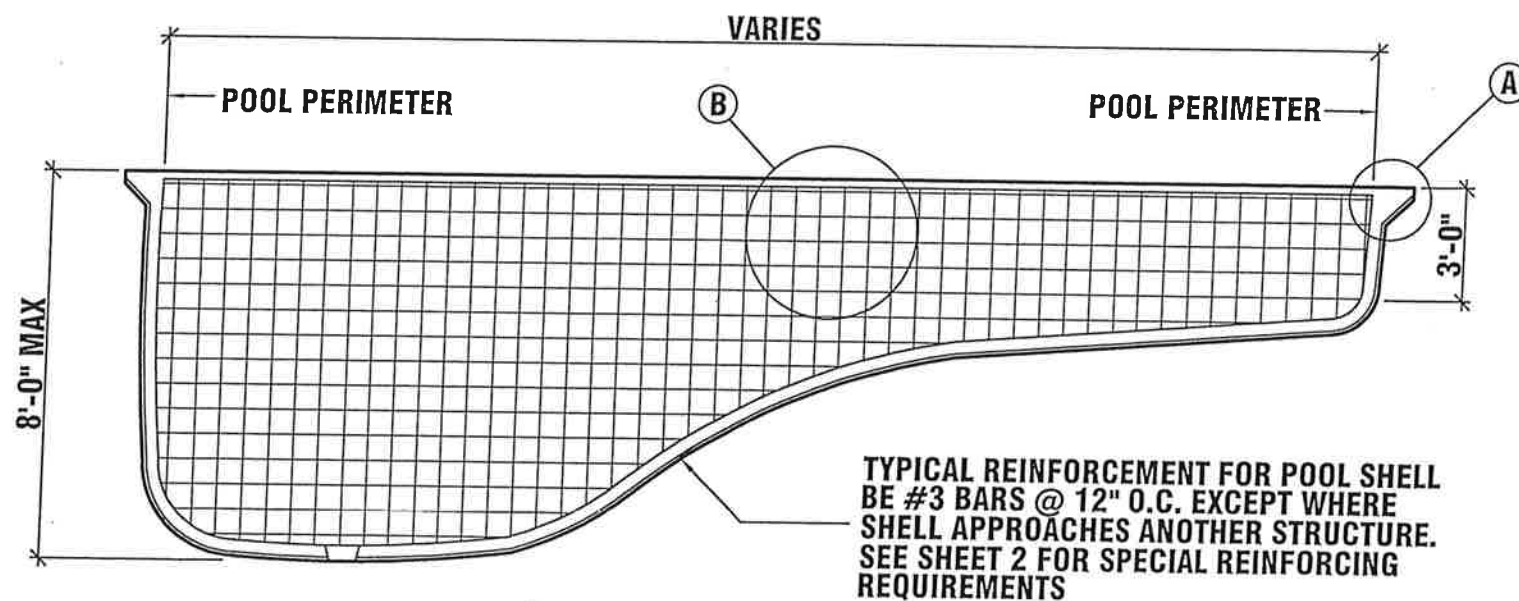
APPROVED
 1/8" = 1'
 Date: 3/27/18 By: [Signature]
 City of Belle Isle

ARCHITECTURAL PLAN



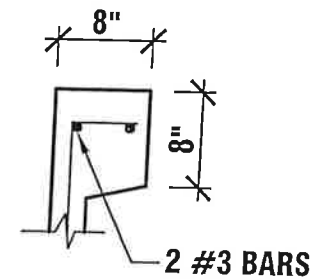
TYPICAL POOL PLAN
(SIZE AND SHAPE VARIES) NTS

PROVIDE EXPANSION JOINTS @ 10' MAX IN ANY DIRECTION

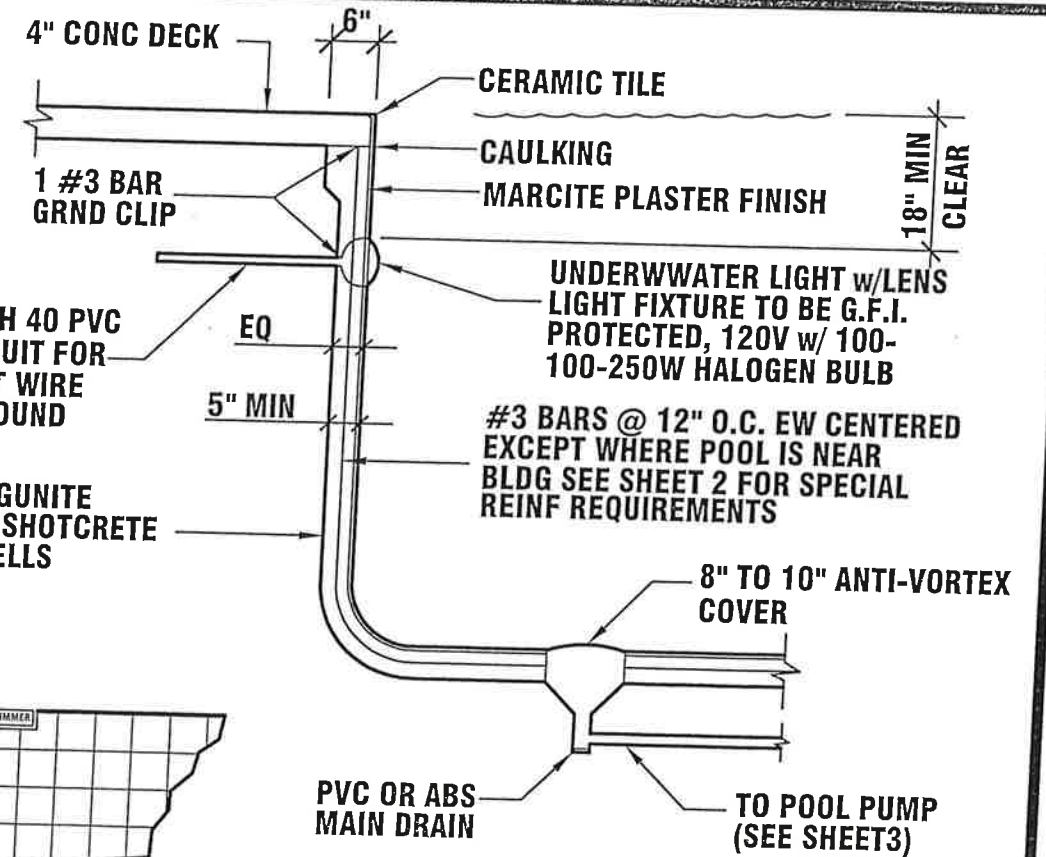


SECTION A-A
NTS

POOL BARRIER REQUIREMENTS
THE POOL SHALL BE PROVIDED WITH A BARRIER. THE TERM "BARRIER", WITH RESPECT TO A SWIMMING POOL, MEANS A FENCE, DWELLING WALL, OR NON-DWELLING WALL, OR ANY COMBINATION THEREOF, WHICH COMPLETELY SURROUNDS THE SWIMMING POOL AND OBSTRUCTS ACCESS TO THE SWIMMING POOL, ESPECIALLY ACCESS FROM THE RESIDENCE OR FROM THE YARD OUTSIDE THE BARRIER. IN THE CASE WHERE A WALL OF A DWELLING THAT CONTAINS A DOOR OR WINDOW SERVES AS PART OF THE BARRIER, ALL DOORS AND WINDOWS PROVIDING DIRECT ACCESS FROM THE HOME TO THE POOL MUST BE EQUIPPED WITH AN EXIT ALARM THAT HAS MINIMUM SOUND PRESSURE RATING OF 85 DB A AT 10 FEET. ALARMS SHOULD MEET THE REQUIREMENTS OF UL 2017 GENERAL-PURPOSE SIGNALING DEVICES AND SYSTEMS, SECTION 77. ALL DOORS PROVIDING DIRECT ACCESS FROM THE HOME TO THE POOL MUST BE EQUIPPED WITH A SELF-CLOSING, SELF-LATCHING DEVICE WITH A RELEASE MECHANISM PLACED NO LOWER THAN 54 INCHES ABOVE THE FLOOR. THE TERM "BARRIER" MEANS, WITH RESPECT TO A PORTABLE HOT TUB, A LOCKABLE COVER.



DETAIL A-A
NTS



SECTION 2-1
NTS

DETAIL B-B
NTS



PROJECT IDENTIFICATION

THIS PLAN IS FOR CONSTRUCTION ON PROPERTY AT
3606 ST MORITZ

BELLE ISLE, FL 32812

NO RESPONSIBILITY IS ACCEPTED BY RICHARDSON ENGINEERING FOR ANY OTHER LOCATION. LOCATION OF PROJECT IS REQUIRED PER DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION RULE 61G1-16.004 REQUIRING PROJECT IDENTIFICATION

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RE RICHARDSON ENGINEERING

SEALED BY RICHARD B. RICHARDSON, P.E.
131 ZELMA STREET
ORLANDO, FLORIDA 32803
(407) 425-4002
LIC#: 00012380 ID#: EB20251

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PROJECT: **KINNAMON RESIDENCE**

CLIENT: **MAJESTY POOLS**

JOB#: **180148**

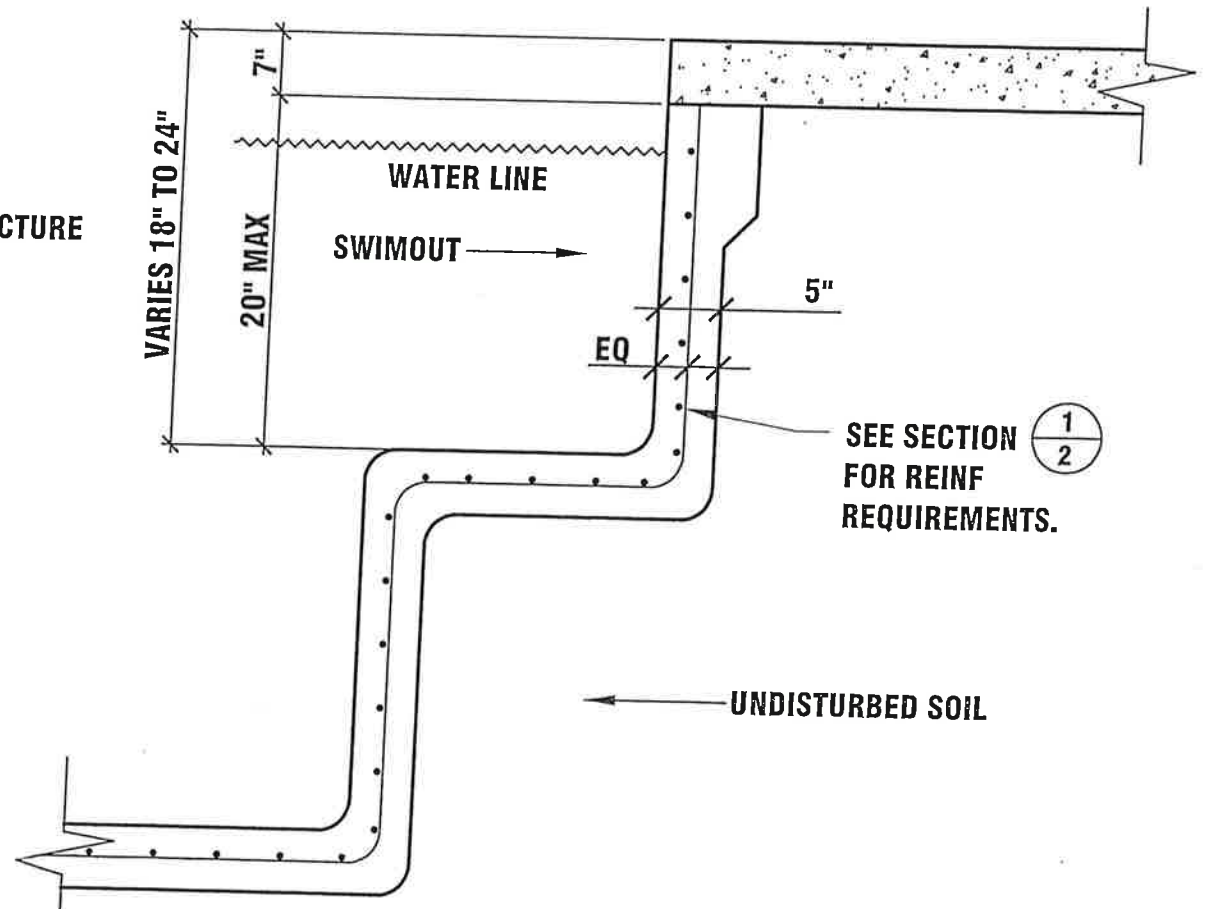
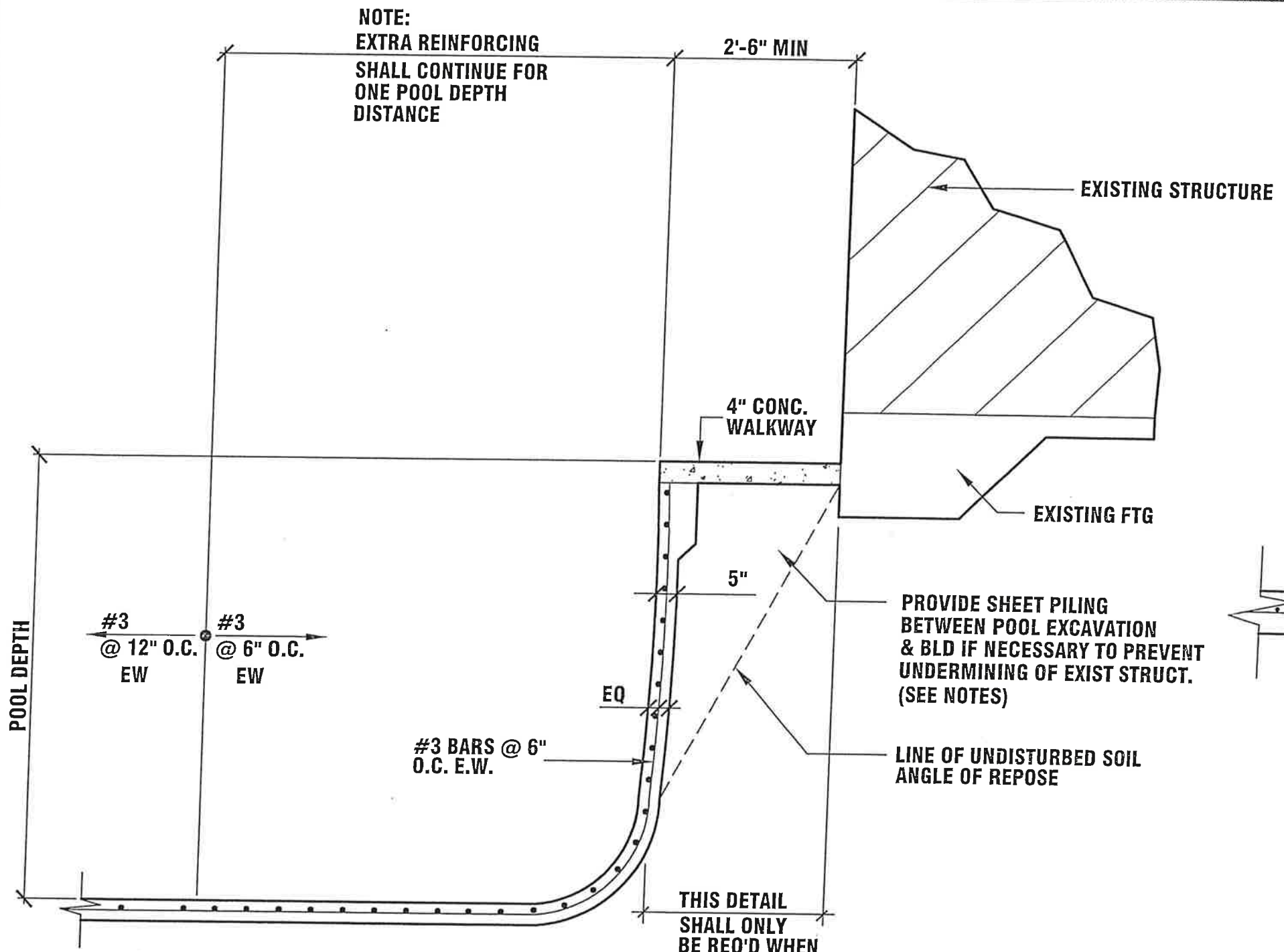
DATE: **3-13-18**

SHEET:

DRAWN BY: **R.E.**

SEAL:

Richardson
3/13/18



TYP. SWIMOUT DETAIL



NOTE:
INFORMATION SHOWN ON THESE DRAWINGS ARE
MINIMUM REQUIREMENTS. THICKNESSES OF
CONCRETE MAY BE INCREASED AT THE CONTRACTORS
DISCRETION

1 SECTION AT POOL NEAR BUILDING

NOTES:

1. POOL SHALL BE CONSTRUCTED IN CONFORMANCE WITH FLORIDA BUILDING CODE 2017, 6th ED
2. ALL REINFORCING ASTM GR 40.
3. GUNITE WALLS TO BE PNEUMATICALLY PLACE, GRADE B' 2,500 PSI AT 28 DAYS OR MACHINE MIXED WITH EQUAL STRENGTH

4. ALL LADDERS, HANDRAILS, ETC GROUNDED WITH #8 INSULATED WIRE TO STEEL IN HULL.
5. SOIL SHALL HAVE 2,000 PSI ALLOW ABLE BEARING PRESSURE
6. DO NOT DRAIN POOL WITH HIGH WATER TABLE
7. PROTECT POOL EXCAVATION NEXT TO EXISTING FOUNDATION FROM RAIN WASHOUT IN LINE OF UNDISTURBED SOIL CAN NOT BE MAINTAINED SHEET PILING IS REQUIRED TO PROTECT FOUNDATION. CONTACT ENGINEER FOR DESIGN OF PILING SYSTEM

8. CHILD PROTECTION FENCING OR ALARMS AS REQUIRED BY FLORIDA BUILDING CODE - RESIDENTIAL 2014 ED AND CURRENT NEC.
9. RICHARDSON ENGINEERING IS ACTING AS A SPECIALTY ENGINEER FOR POOL AN DTURNDOWN DETAIL ONLY

SEAL:

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3/13/18

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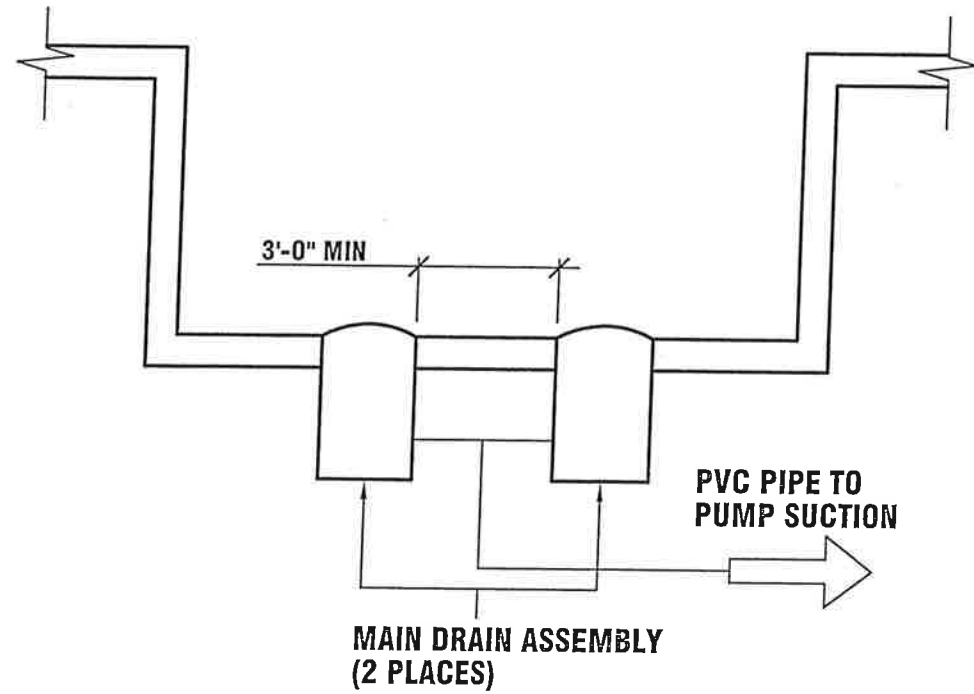
PROJECT: *KINNAMON RESIDENCE*

CLIENT: *MAJESTY POOLS*

JOB#: *180148* DATE: *3-13-18*

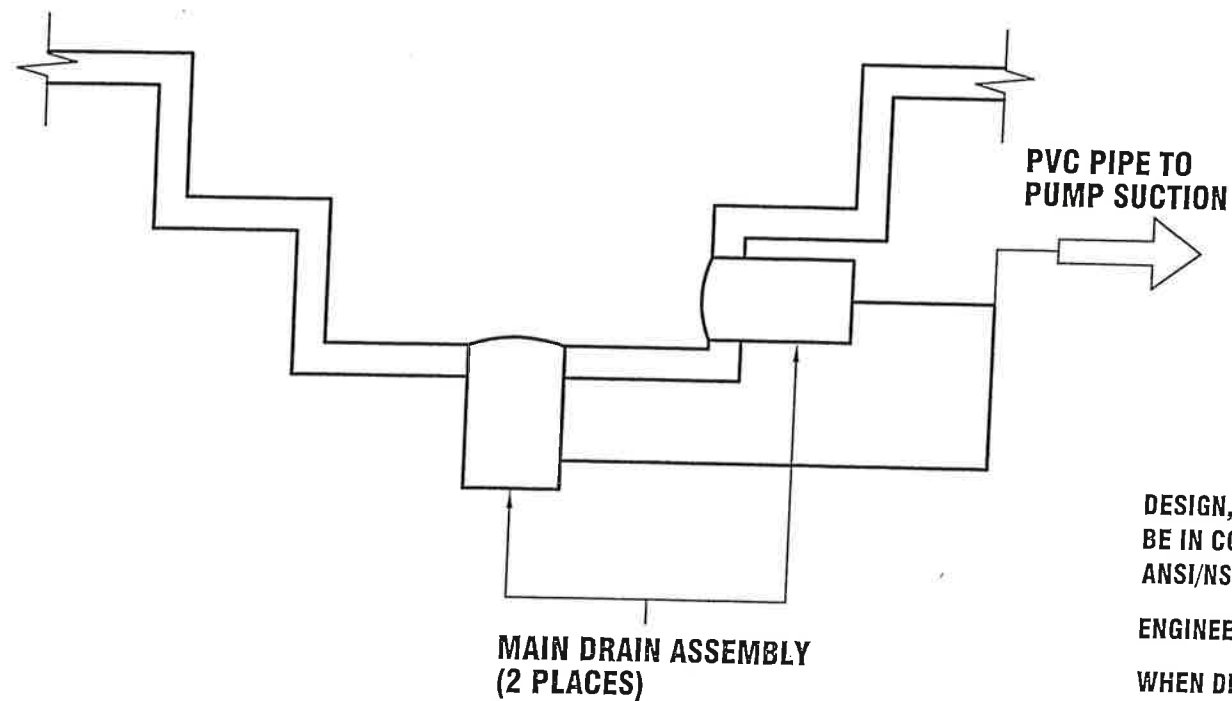
SHEET: DRAWN BY: *R.E.*

DUAL MAIN DRAINS FOR SPAS AND SWIMMING POOLS



1
3

MAIN DRAIN
SUCTION PIPING
NTS



ALTERNATE
SUCTION PIPING
NTS

DESIGN, CONSTRUCTION AND WORKMANSHIP SHALL BE IN CONFORMANCE WITH REQUIREMENTS OF ANSI/NSPI-4 THROUGH 7 & FBC 2017, 6th EDITION.

ENGINEERED DESIGN ALSO INCLUDES SPAS WHEN DEPTH EXCEEDS 5' SEE SWIMOUT DETAIL

REINFORCEMENT SHALL CONFORM TO THE APPLICABLE ASTM STANDARD LISTED IN ACI 318

SUCTION ENTRAPMENT AVOIDANCE SHALL CONFORM W/ ANSI/APSP 7. CONTRACTOR SHALL SUBMIT HYDRAULIC CALCULATIONS FOR PUMP SIZING, PIPE SIZING, FLOW RATES AND MAXIMUM VELOCITY RATES TO SHOW TECHNICAL COMPLIANCE W/ SUCTION ENTRAPMENT SAFETY STANDARD.

A TIMER IS REQUIRED. PROVIDE CLOCK

2011 NATIONAL ELECTRIC CODE - NFPA NEC-70 ALL BONDING AND GROUNDING NOTES ARTICLE 680 (ALL) SHALL COMPLY WITH 4242.17.1 THROUGH 4242.17.15 FOR BARRIERS

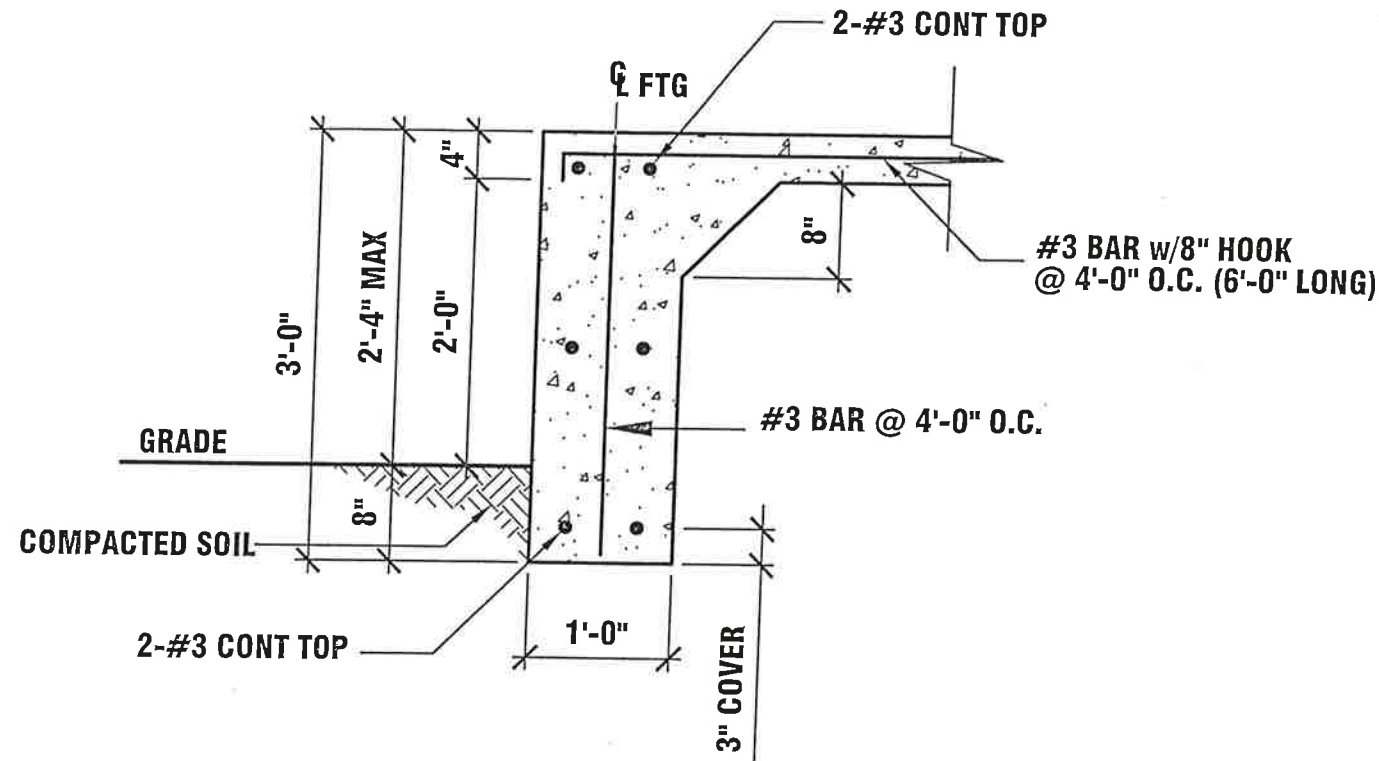


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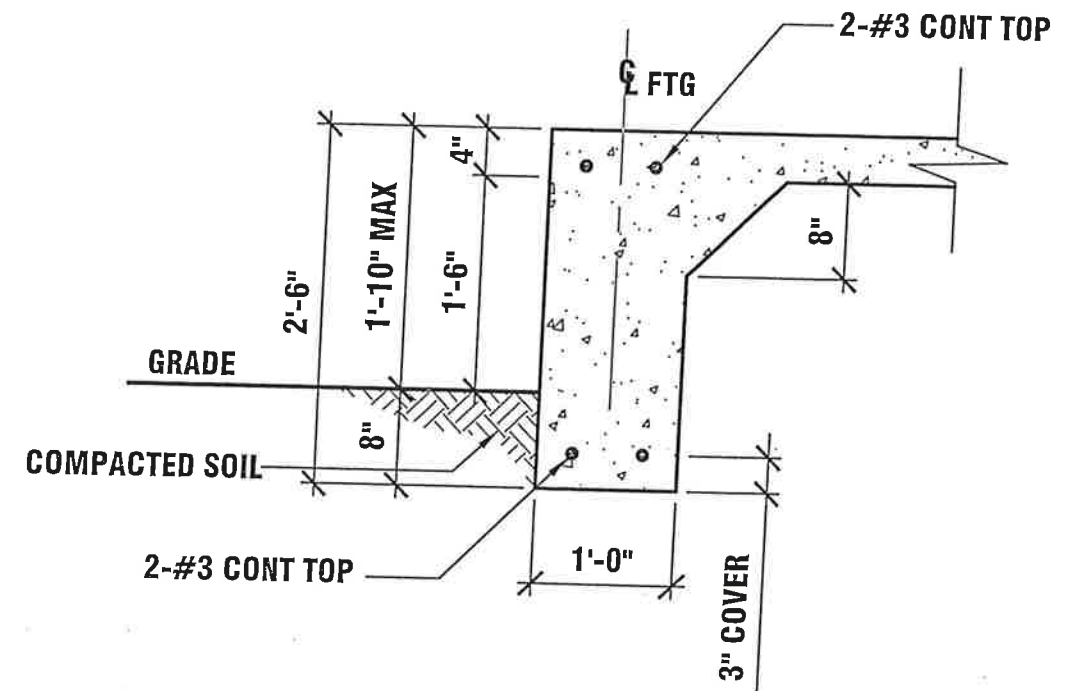
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PROJECT: KINNAMON RESIDENCE	
CLIENT: MAJESTY POOLS	
JOB#: 180148	DATE: 3-13-18
SHEET:	DRAWN BY: R.E.



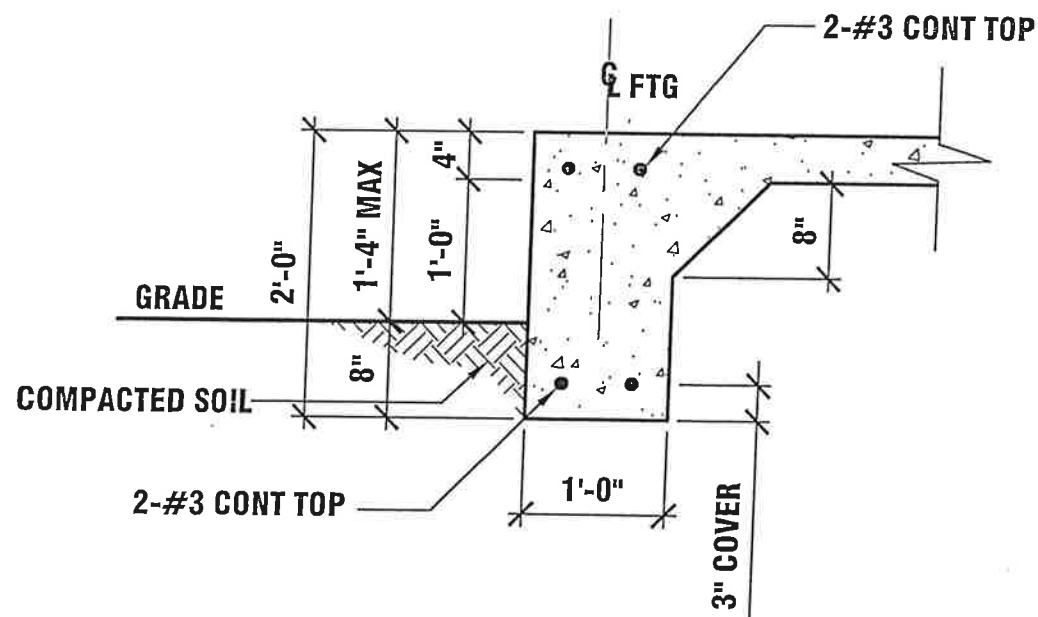
SECTION @ 24" TURNDOWN + 4" DECK

SCALE: $\frac{3}{4}'' = 1'$



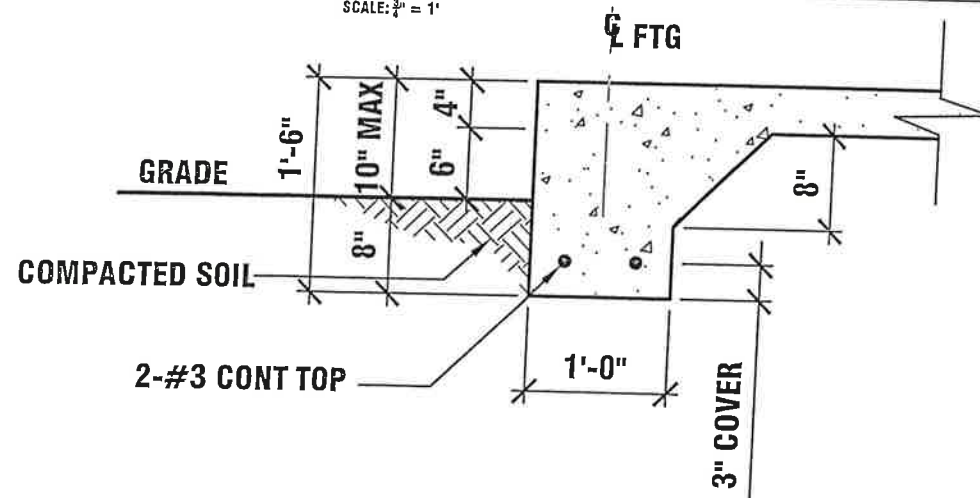
SECTION @ 18" TURNDOWN + 4" DECK

SCALE: $\frac{3}{4}'' = 1'$



SECTION @ 12" TURNDOWN + 4" DECK

SCALE: $\frac{3}{4}'' = 1'$



SECTION @ 6" TURNDOWN + 4" DECK

SCALE: $\frac{3}{4}'' = 1'$



NOTES:

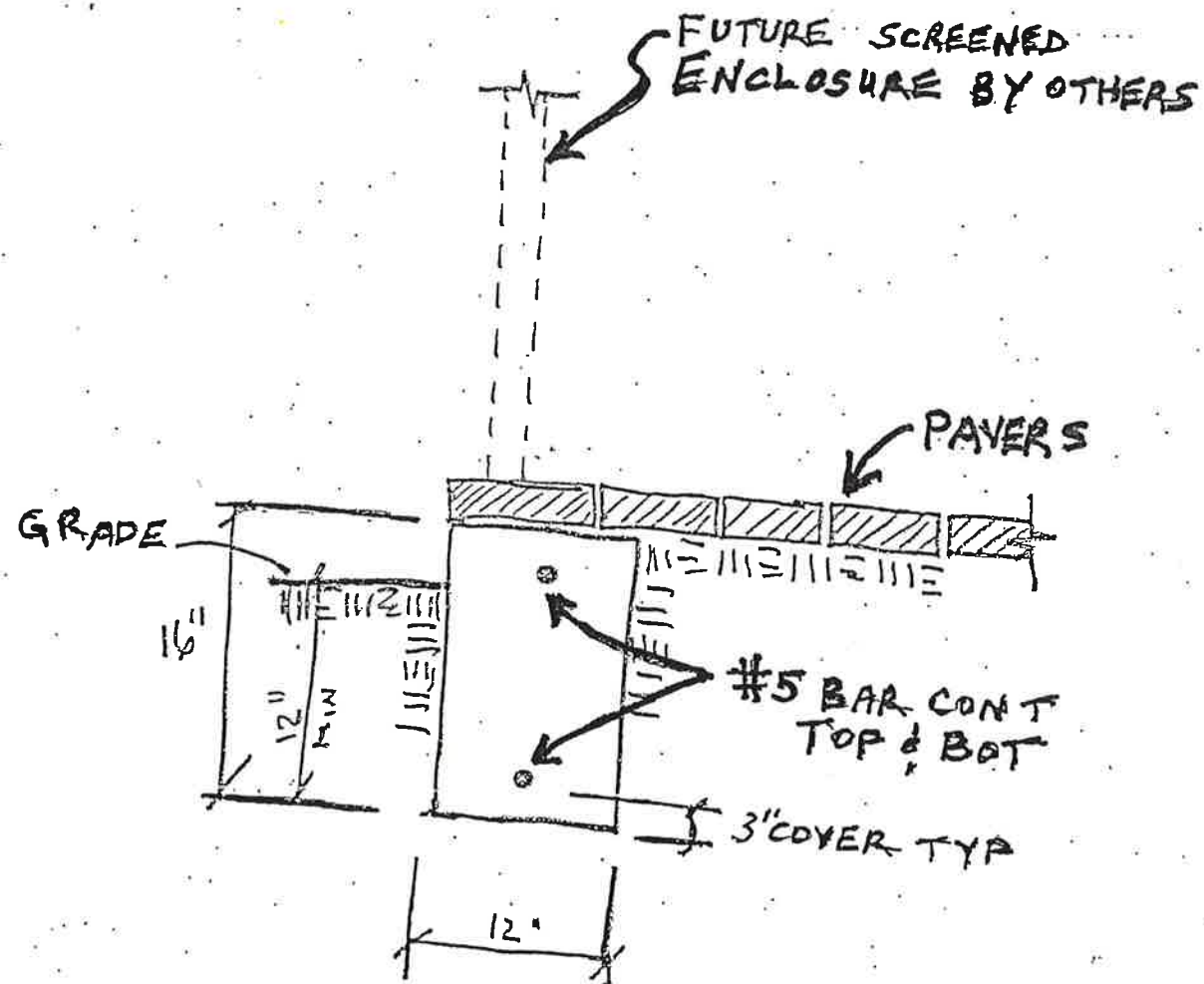
1. CONCRETE (GUNITE) F'C = 3000 P.S.I. MIN @ 28 DAYS
2. REBAR: GRADE 40
3. SOIL SHALL BE COMPACTED TO 95%

SEAL:

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3/13/18

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PROJECT: *KINNAMON RESIDENCE*
 CLIENT: *MAJESTY POOLS*
 JOB#: *180148* DATE: *3-13-18*
 SHEET: DRAWN BY: R.E.



NOTES:

1. CONCRETE (GUNITED) F'C = 3000 P.S.I. MINIMUM @ 28 DAYS
2. REBAR: GRADE 40
3. SOIL SHALL BE COMPACTED TO 95%

DECK EDGE DETAIL (APPLICABLE WHEN PAVERS USED)



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3/13/18

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SEALED BY RICHARD B. RICHARDSON P.E. 131 ZELMA STREET ORLANDO FLORIDA 32803 (407) 425 - 4002 LIC# 00012380 ID# EB 26251	
PROJECT: KINNAMON RESIDENCE	
CLIENT: MAJESTY POOLS	
JOB#: 180142	DATE: 3-13-18
SHEET	DRAWN BY:

THIS WORKSHEET FOR REPLACING EXISTING POOL PUMP & FILTER CERTIFICATION OF COMPLIANCE

ANSI/ASP-7 2006 Specifies three methods for determining the maximum system flow rate. The following simplified TDH calculation is one of the methods specified.

Contains: WG1048E Description: 8" Round Suction Outlet Cover
 Ratings: Floor: 125 GPM Wall: 72 GPM Open Area: 8.1 sq-in.
 Certified to Comply with Section 1404 of the Virginia Graeme Baker Act (VGB) Pool & Spa Safety Act
 Test Results can be obtained from: www.Haywardnet.com and/or <http://www.nsf.org/Certified/Pool/>

Simplified Total Dynamic Head (TDH) Calculation Worksheet

Determine Maximum System Flow Rate: Minimum Flow Rate Required: 35 gpm per skimmer

- Calculate Pool Volume: $\frac{400'}{\text{(Surface Area)}} \times \frac{4.5}{\text{(Average Depth)}} \times 7.48 \text{ (gal./cubic foot)} = \frac{13500}{\text{(Volume in gallons)}}$
- Determine preferred Turnover Time in hours: $\frac{6}{\text{(Hours)}} \times 60 \text{ (minutes / hour)} = \frac{360}{\text{(Turnover in Minutes)}}$
- Determine Max Flow Rate: $\frac{13500}{\text{(Volume in gallons)}} \div \frac{360}{\text{(Turnover Minutes)}} = 37.5 + 0 = 37.5$
(Pool Flow Rate) (Feature Flow Rate) (System Flow Rate)
- Spa Jets: $\frac{6}{\text{(Number of jets)}} \times \frac{15}{\text{(Jet Flow)}} \text{ gpm per jet} = 90 \text{ flow rate.}$
(Total Jet flow Rate)

(For single pump pool/spa combo, use the higher of No. 3 or No. 4 in the following calculations for the pool & spa)

Determine Pipe Sizes: POOL (EXISTING)

- EXISTING
- Branch Piping to be 2 inch to keep velocity @ 6 fps max. at 37.5 gpm Maximum System Flow Rate.
 - Trunk Piping to be 1 1/2 inch to keep velocity @ 8 fps max. at 37.5 gpm Maximum System Flow Rate.
 - Return Piping to be 1 1/2 inch to keep velocity @ 10 fps max. at 37.5 gpm Maximum System Flow Rate.

Determine Simplified TDH:

- Distance from pool to pump in feet: 40'
 - Friction loss (in suction pipe) in 1 1/2 inch pipe per 1 ft. @ 37.5 gpm = .28 (from pipe flow/friction loss chart)
 - Friction loss (in return pipe) in 1 1/2 inch pipe per 1 ft. @ 37.5 gpm = .48 (from pipe flow/friction loss chart)
 - Length of suction pipe 40 x ft. of head/1 ft of pipe .28 = TDH suction pipe 11.2
 - Length of return pipe 40 x ft. of head/1 ft of pipe .48 = TDH return pipe 19.2
- $\Sigma = 30.4$

TDH in Piping: 30.4
 Filter loss in TDH (from filter data sheet): 2.0
 Heater loss in TDH (from heater data sheet): -
 Total all other loss: -
 Total Simplified TDH: 32.4

Selected Pump and Main Drain Cover:

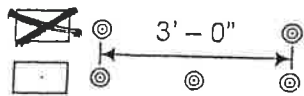
Pump selection HAYWARD SUPER PUMP (SINGLE SPEED) 1/2 HP
SP2600XS
(Pump model and size in Horsepower) using pump curve for Simplified TDH & System Flow Rate

REPLACE Main Drain Cover WG1048E (System Flow Rate must not exceed approved cover flow rate)
(Make and Model)

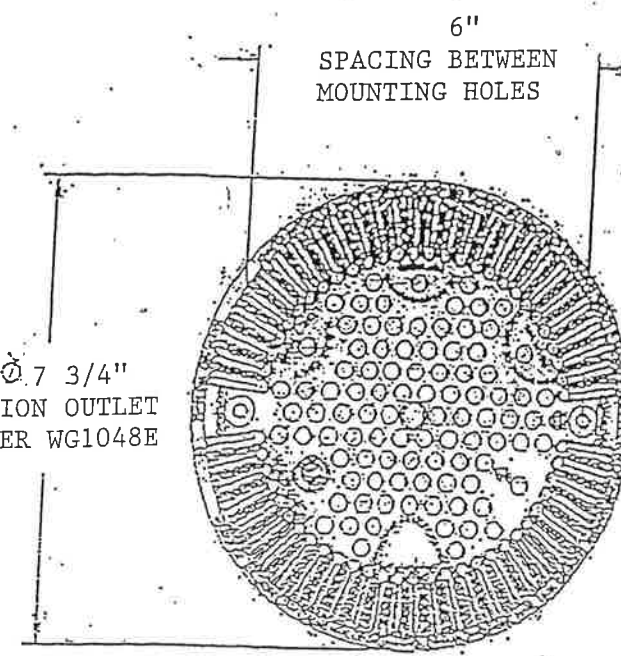
Notes: Minimum system flow based on minimum flow per skimmer of 35 gpm.

Determine the Number and Type of Required In-Floor Suction Outlets: EXISTING

Check all that apply.

-  2 suction outlets @ 125 gpm max. flow (see note 2) - ADD 2ND MAIN DRAIN AS REQ'D
- 3 suction outlets @ _____ gpm max. flow (see note 3)
- Aquastar Channel Drain @ 316 gpm max. flow rate
- A & A Channel Drain @ 217 gpm w/ 2 port & 278 gpm w/ 3 ports (see note 4)

NOTE: EXISTING POOL & NEW SPA WILL SHARE SAME FILTER. POOL RECIRCULATION SHALL BE TURNED OFF WHEN SPA IS IN USE.



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 Universal Engineering Sciences

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 3/13/18

TDH Calculation Options
 For each pump

Check one

Simplified Total Dynamic Head (STDH)
 Complete STDH Worksheet - Fill in all blanks

Total Dynamic Head (TDH)
 Complete Program or other calcs. Fill in required blanks on worksheet & attached calculations.

- Notes:
- If a variable speed pump is used, use the maximum pump flow in calculations.
 - For side wall drains, use appropriate side wall drain flow as published by the manufacturer.
 - Insert the manufacturer's name and approved maximum flow.
 - See installation instructions for number of ports to be used.
 - In-floor suction outlet cover/grate must conform to most recent edition of ASME/ANSI A112.12.8 and be embossed with that edition approval.
 - Pump & Filter make, model and location can not change without submitting revised plans and TDH worksheet.

Flow and Friction Loss Per Foot						
Schedule 40 PVC Pipe						
Pipe Size	Velocity - Feet Per Second					
	6 fbs		8 fbs		10 fbs	
1"	16 gpm	0.25'	21 gpm	0.66'	26 gpm	0.94'
1.5"	37 gpm	0.16'	50 gpm	0.28'	62 gpm	0.48'
2"	62 gpm	0.15'	82 gpm	0.25'	103 gpm	0.40'
2.5"	88 gpm	0.09'	117 gpm	0.15'	146 gpm	0.23'
3"	138 gpm	0.09'	181 gpm	0.14'	227 gpm	0.23'

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 LIC# 00012380 10# EB 26251

THIS WORK SHEET FOR NEW SPA & FILTER

ANSI/ASP-7 2006 Specifies three methods for determining the maximum system flow rate. The following simplified TDH calculation is one of the methods specified.

Simplified Total Dynamic Head (TDH) Calculation Worksheet SPA ADDITION ONLY

Determine Maximum System Flow Rate: Minimum Flow Rate Required: 35 gpm per skimmer

- Calculate Pool Volume: $\frac{\text{Surface Area}}{\text{Average Depth}} \times 7.48 \text{ (gal./cubic foot)} = \text{Volume in gallons}$
- Determine preferred Turnover Time in hours: $\frac{\text{Volume in gallons}}{\text{Turnover in Minutes}} \times 60 \text{ (minutes / hour)} = \text{Hours}$
- Determine Max Flow Rate: $\frac{\text{Volume in gallons}}{\text{Turnover Minutes}} = \text{Pool Flow Rate} + \text{Feature Flow Rate} = \text{System Flow Rate}$
- Spa Jets: $\frac{\text{Number of jets} \times \text{Jet Flow}}{\text{Total Jet flow Rate}} = \text{flow rate}$

(For single pump pool/spa combo, use the higher of No. 3 or No. 4 in the following calculations for the pool & spa)

Determine Pipe Sizes:

- Branch Piping to be 3 inch to keep velocity @ 6 fps max. at 90 gpm Maximum System Flow Rate.
 Trunk Piping to be 2 1/2 inch to keep velocity @ 8 fps max. at 90 gpm Maximum System Flow Rate.
 Return Piping to be 2 inch to keep velocity @ 10 fps max. at 90 gpm Maximum System Flow Rate.

Determine Simplified TDH:

- Distance from pool to pump in feet: 25
- Friction loss (in suction pipe) in 2 1/2 inch pipe per 1 ft. @ 90 gpm = .15 (from pipe flow/friction loss chart)
- Friction loss (in return pipe) in 2 inch pipe per 1 ft. @ 90 gpm = .40 (from pipe flow/friction loss chart)
- Length of suction pipe 25 x ft. of head/1 ft of pipe .15 = TDH suction pipe 3.75
- Length of return pipe 25 x ft. of head/1 ft of pipe .40 = TDH return pipe 10

TDH in Piping: 13.75'

Filter loss in TDH (from filter data sheet): 6'

Heater loss in TDH (from heater data sheet): 7'

Total all other loss: 2.1'

Total Simplified TDH: 47.75'

Selected Pump and Main Drain Cover:

Pump selection HAYWARD SUPER PUMP (TWO SPEED) 2.0 HP
SP2615X202S using pump curve for Simplified TDH & System Flow Rate
 (Pump model and size in Horsepower)

Main Drain Cover WG1048E (System Flow Rate must not exceed approved cover flow rate)
 (Make and Model)

Notes: Minimum system flow based on minimum flow per skimmer of 35 gpm.

Determine the Number and Type of Required In-Floor Suction Outlets:

Check all that apply.

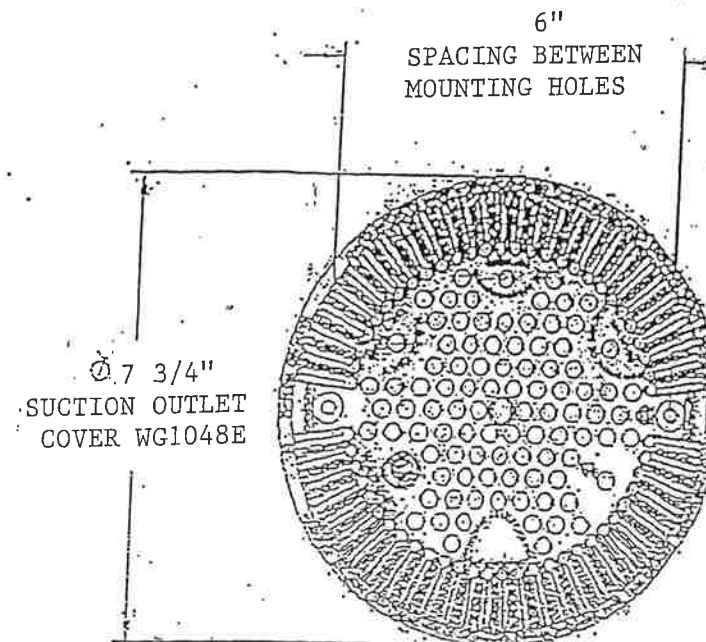
- 3' - 0" 2 suction outlets @ 125 gpm max. flow (see note 2)
- 3 suction outlets @ _____ gpm max. flow (see note 3)
- Aquastar Channel Drain @ 316 gpm max. flow rate
- A & A Channel Drain @ 217 gpm w/ 2 port & 278 gpm w/ 3 ports (see note 4)

CERTIFICATION OF COMPLIANCE

Contains: WG1048E Description: 8" Round Suction Outlet Cover

Ratings: Floor: 125 GPM Wall: 72 GPM Open Area: 8.1 sq-in.

Certified to Comply with Section 1404 of the Virginia Graeme Baker Act (VGB) Pool & Spa Safety Act
 Test Results can be obtained from: www.Haywardnet.com and/or <http://www.nsf.org/Certified/Spas/>



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MAIN DRAIN COVER

TDH Calculation Options
 For each pump

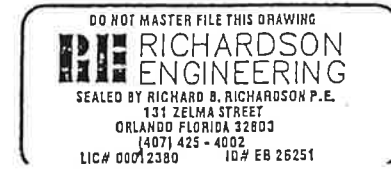
Check one

Simplified Total Dynamic Head (STDH)
 Complete STDH Worksheet - Fill in all blanks

Total Dynamic Head (TDH)
 Complete Program or other calcs. Fill in required blanks on worksheet & attached calculations.

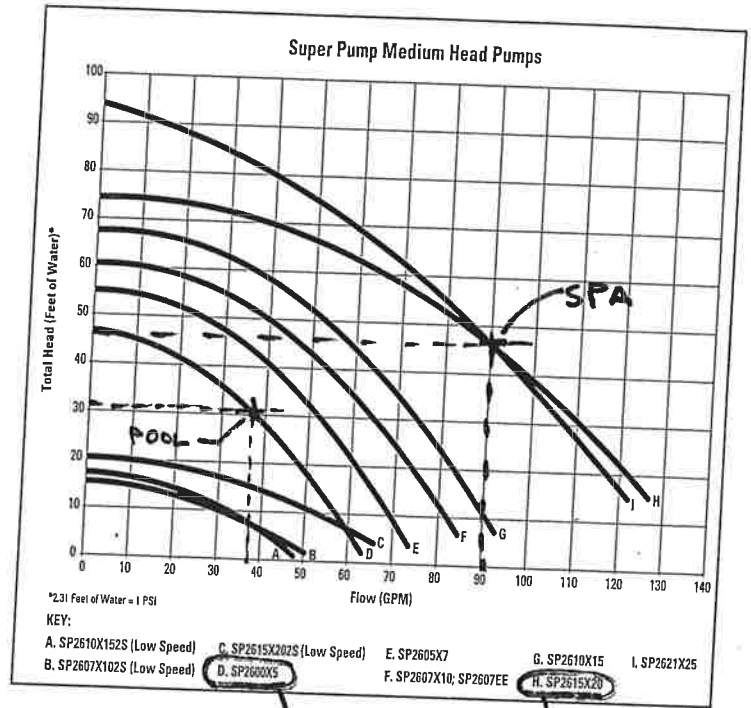
- Notes:
- If a variable speed pump is used, use the maximum pump flow in calculations.
 - For side wall drains, use appropriate side wall drain flow as published by the manufacturer.
 - Insert the manufacturer's name and approved maximum flow.
 - See installation instructions for number of ports to be used.
 - In-floor suction outlet cover/grate must conform to most recent edition of ASME/ANSI A112.12.8 and be embossed with that edition approval.
 - Pump & Filter make, model and location can not change without submitting revised plans and TDH worksheet.

Flow and Friction Loss Per Foot						
Schedule 40 PVC Pipe						
Pipe Size	Velocity - Feet Per Second					
	6 fbs		8 fbs		10 fbs	
1"	16 gpm	0.25'	21 gpm	0.66'	26 gpm	0.94'
1.5"	37 gpm	0.16'	50 gpm	0.28'	62 gpm	0.48'
2"	62 gpm	0.15'	82 gpm	0.25'	103 gpm	0.40'
2.5"	88 gpm	0.09'	117 gpm	0.15'	146 gpm	0.23'
3"	138 gpm	0.09'	181 gpm	0.14'	227 gpm	0.23'



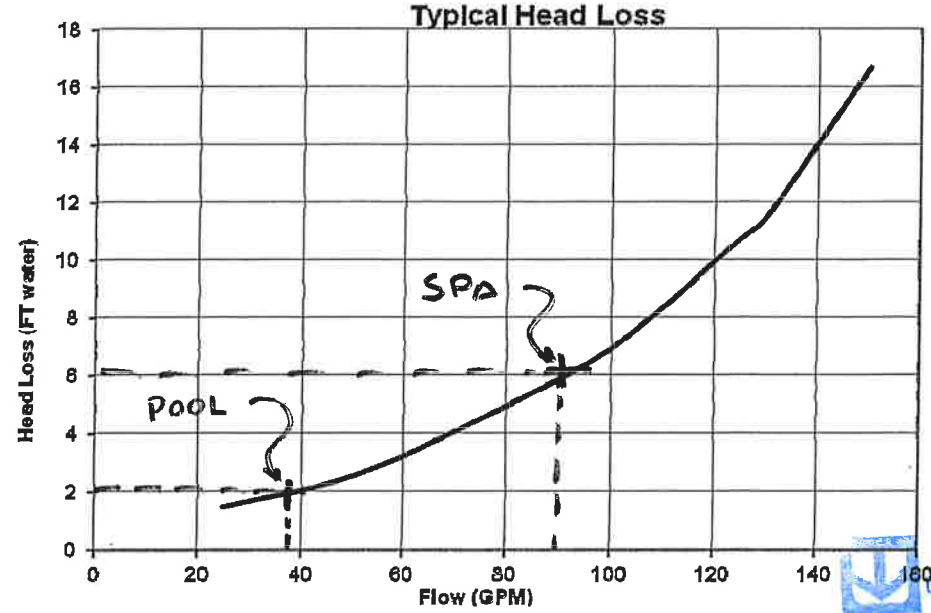
Hydraulics

PUMP PERFORMANCE CURVES (continued)



POOL PUMP

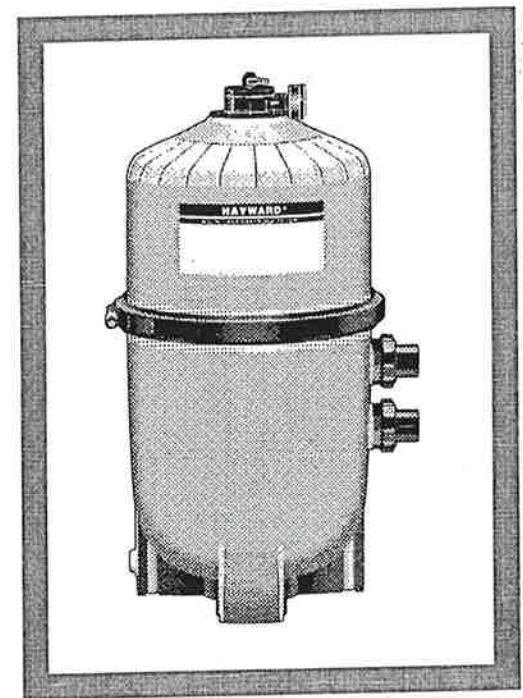
SPA PUMP



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MODEL	EFFECTIVE FILTRATION RATE		DESIGN FLOW RATE	
	Residential	Commercial	Residential	Commercial
	FT ²	M ²	GPM	LPM
C2030	225	20.9	84	318
C3030	325	30.2	122	462

Owner's Manual



HAYWARD

SwimClear™

Models C2030 C3030 C4030 C5030 C7030

Swimming Pool Energy Efficiency Compliance Information

NOTE: These Requirements apply ONLY to the Filtration Pump

Project Name: DAVID KINNAMON
Address: 3606 ST. MORITZ
BELLE ISLE 32812

Flow Calculations per Standard - Pool water volume 13500 ÷ 360 = 37.5 gpm = calculated flow rate.
Note: for pools under 13,000 gals. the calculated flow rate or 36 gpm whichever is greater = the filtration flow rate.
Is there an Auxiliary load on the filtration pump? Yes No
If so, what is the calculated auxiliary flow rate 90 gpm

Maximum Flow Rate 90 gpm (greater of the filtration flow rate or the auxiliary flow rate if the auxiliary flow is powered by the filtration pump).

Minimum suction side filtration pipe size @ 6 fps 3 in. Minimum suction side branch pipe size @ 6 fps 3 in.
Minimum return side filtration pipe size @ 8 fps 2 1/2 in. Minimum return side branch pipe size @ 8 fps 2 1/2 in.
Note: pipe sizing requirements apply ONLY to filtration piping ÷ do not apply to auxiliary load piping.

Pipe Size:	1.5"	2"	2.5"	3"	3.5"	4"	5"	6"
Nominal GPM @ 6 fps	38	63	90	138	185	238	374	540
Nominal GPM @ 8 fps	51	84	119	184	247	317	499	720

Filter type CARTRIDGE Size 325412
Minimum Filter Area per filter factor in the Standard 325 x .375 = 122 gpm (max. flow through filter)
Factor = Filter Area x .375 (cartridge) or - x 2.0 (D.E.) or - x 15 (Sand)

Backwash valve? Yes No (If yes, must be 2 inch minimum)

Pump Selection as Listed on (circle one) Curve A (less than 17,000 gal.) or Curve C (greater than 17,000 gal.)
Make: HAYWARD Model POOL (HAYWARD SP2600X5), SPA (SP2615 X2025)
Flow Rate: 84 gpm @ 3450 rpm. (flow rate must be <= maximum filtration flow rate)

Pump Controls - Filtration pump has no auxiliary load - standard time clock _____
Filtration pump with auxiliary load - Control model for low speed default within 24 hr. INTERMATIC

Heater Model HAYWARD 400,000 BTU
Gas Heater efficiency rating 86% (No Pilot Light)
Heat Pump efficiency C.O.P. _____

Equipment Piping - minimum 4 pipe diameters in front of pump and minimum 18" after filter for future solar.
Directional return fittings will be installed.

I affirm that the information above is true and correct: _____

Contractor Signature

ANSI-7 Suction Outlet Safety Compliance Data Sheet

(One sheet for each drain or set of drains in the system)

Job Name: DAVID KINNAMON
Address: 3606 ST. MORITZ
BELLE ISLE 32812

THIS DATA IS FOR THE: POOL AUXILIARY (Spa, Feature(s) etc.)

SUCTION OUTLET(S)

Are there drains: yes no (if no, go to trunk & return pipe size)
Single unblockable Two or more
(if single unblockable, indicate make, model & flow rating then go to trunk & return pipe size)
Drain make & model: HAYWARD U610 GPE
Listed cover flow rate: 125 gpm

SYSTEM FLOW RATE

System flow rate: 90 gpm

Method of determining system flow:

- Maximum flow from the pump curve
- Total dynamic head calculation (attach calculation sheet)
- Simplified total dynamic head (attach pipe length + filter + heater resistance)



PUMP SELECTION

Pump make & model: POOL (HAYWARD SP2600X5), SPA (SP2615 X2025)
(attach pump performance curve, indicating flow as calculated above)

PIPE SIZE

Branch piping size 3 inch @ 6 fps or lower
Trunk line size 2 1/2 inch @ 8 fps

PIPE SIZE SUMMARY - THIS JOB - PER THE APPLICABLE STANDARD:

POOL {	Suction side filtration branch piping size =	<u>2"</u> in.	per ANSI-15 or 7 @ 6 fps
	Suction side filtration trunk line piping size =	<u>1 1/2"</u> in.	per ANSI-15 or 7 @ 6 fps or 8 fps
	Return side filtration branch piping size =	<u>2"</u> in.	per ANSI-15 @ 8 fps
	Return side filtration trunk line piping size =	<u>1 1/2"</u> in.	per ANSI-15 @ 8 fps
	Auxiliary drain branch suction line piping size =	<u>3</u> in.	per ANSI-7 @ 6 fps
	Auxiliary drain trunk suction line piping size =	<u>2 1/2"</u> in.	per ANSI-7 @ 8 fps
Auxiliary return line piping size =	<u>2</u> in.	per ANSI-5 @ 10 fps	
Vacuum line, if installed shall be sized to flow at 8 fps per ANS-5 and shall be covered with a self-closing, self-latching cover per ANSI-7.			