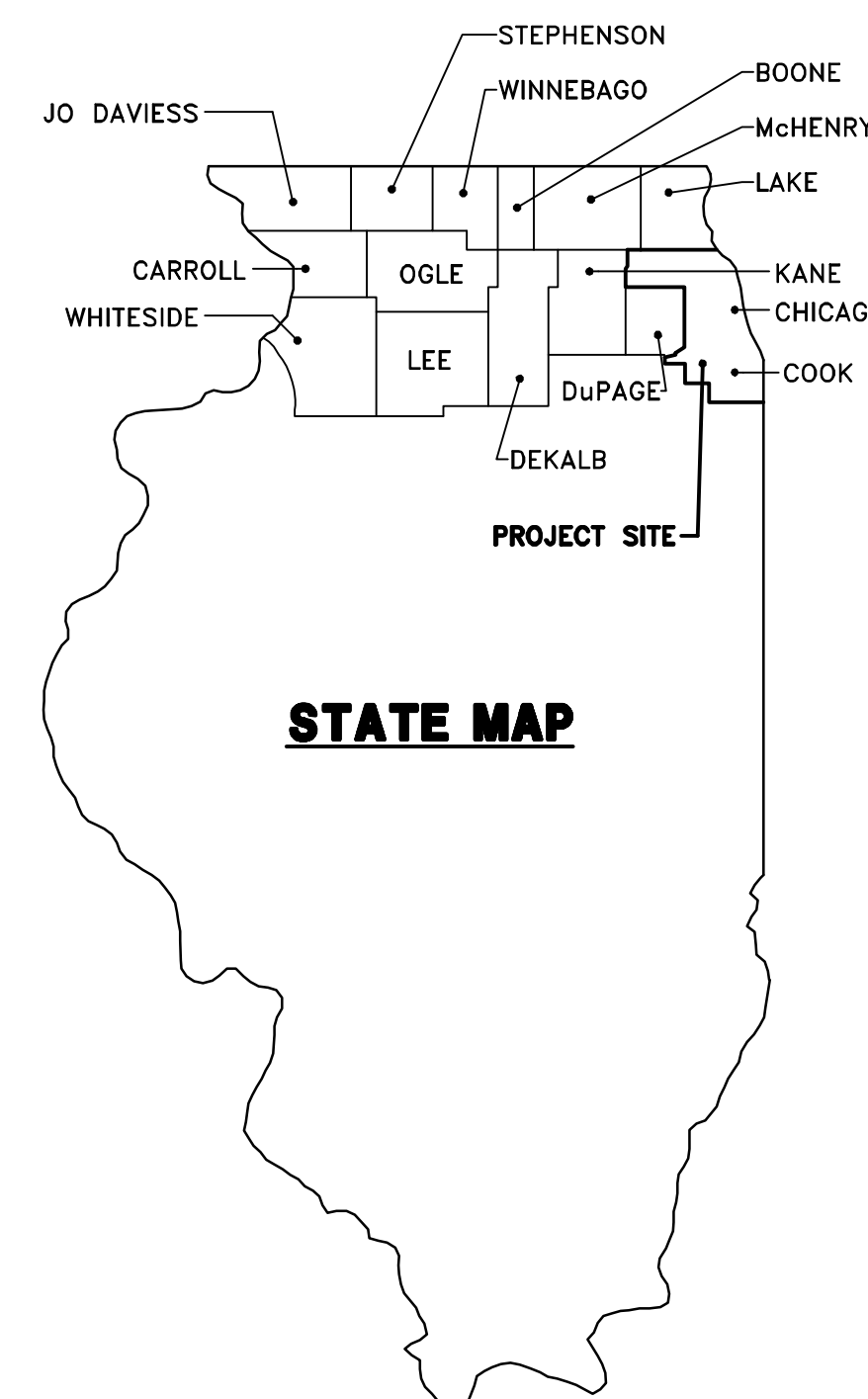


VIRGINIA GRAEME BAKER POOL & SPA SAFETY ACT IMPROVEMENTS FOR: VILLAGE OF ORLAND PARK CENTENNIAL PARK FAMILY AQUATIC CENTER

15600 WEST AVENUE
ORLAND PARK, IL 60462
(708) 349-4386

FOR:

VILLAGE OF ORLAND PARK
14700 RAVINIA AVE.
ORLAND PARK, IL 60462



DRAWING INDEX

<u>SHEET NUMBER</u>	<u>DESCRIPTION</u>
COVER SHEET	
PSK-1	SITE PLAN - EXISTING - PLUMBING
PSK-2	MAIN POOL LAP & PLUNGE AREA - EXISTING - PLUMBING
PSK-3	MAIN POOL LAP & PLUNGE AREA - NEW WORK - PLUMBING
PSK-4	ACTIVITY POOL - DEMO & NEW WORK - PLUMBING
PSK-5	PLUNGE POOL & LAZY RIVER - EXISTING - PLUMBING
PSK-6	PLUNGE POOL & LAZY RIVER - NEW WORK - PLUMBING
PSK-7	DETAILS & SECTIONS - PLUMBING
PSK-8	PUMP CURVES

CERTIFICATION: LICENSE #: 062-33310 SEAL EXPIRES: NOVEMBER 30, 2011

<u>SHEET</u>	<u>ISSUED</u>	<u>REVISED</u>	<u>REVISED</u>	<u>REVISED</u>	<u>REVISED</u>
G-1	04/19/10		11-12-10	1-28-11	3-14-11
PSK-1	04/19/10				
PSK-2	04/19/10				
PSK-3	04/19/10				3-14-11
PSK-4	04/19/10				3-14-11
PSK-5	04/19/10				
PSK-6	04/19/10	06/28/10		1-28-11	3-14-11
PSK-7	04/19/10	06/28/10	11-12-10	1-28-11	3-14-11
PSK-8	04/19/10				

METRO DESIGN ASSOCIATES, INC.
MECHANICAL/ELECTRICAL/PLUMBING ENGINEERS
1707 N. Randall Road Suite 390 Elgin, Illinois 60123-7820
Voice: (224) 629-4444 Fax: (847) 622-7485
WWW.METRODGN.COM

APRIL 19, 2010
PROJECT #: 1034-A-2

ISSUED FOR PERMIT

EXISTING SWIMMING POOL DATA:

PLUNGE POOL & LAZY RIVER:

POOL CHARACTERISTICS

PLUNGE POOL:
URFACE AREA: 1200 SQ. FT.
WATER DEPTHS: 2'-6" to 3'-6"
CAPACITY: 29,892 GALLONS
TURNOVER RATE: 60 MIN.
FLOW RATE: 498 GPM

EXISTING DRAINS: (2) 18"x18" SUMP TO REMAIN, GRATE TO BE REPLACED.

LAZY RIVER:

TOTAL SURFACE AREA: 10,434 S.F.
WATER DEPTHS: 1'-0" to 2'-5"
CAPACITY: 194,135 GALLONS
ENTRY TURNOVER RATE: 60 MIN.
LAZY RIVER
TURNOVER RATE: 180 MINS.
LAZY RIVER FLOW RATE: 1,036 GPM
ENTRY FLOW RATE: 129 GPM
TOTAL FLOW RATE: 1,165 GPM

EXISTING DRAINS: (1) 3'x5', (1) 3'x7', (1) 3'x10'; SUMP TO REMAIN, GRATE TO BE REPLACED.

FILTER:

(1) NEPTUNE BENSON SDC/DDC SERIES # 102SDC-10, 102" DUAL CELL STEEL TANK, 113.5 S.F. OF SURFACE AREA, 14.7 GPM/S.F. FILTER AREA, AUTO BACKWASH.

FILTER PUMP:

(1) AURORA PUMP 340-ES, 6'x6'x11, 1663 GPM @ 70' TDH, 40 HP, 230/460 V, 3 PH, 60 HZ, 1750 RPM, TEFC MOTOR END SUCTION, CLOSE COUPLED, BRONZE FITTED, EPOXY COATED VOLUTE.

PUMP MAXIMUM FLOW CAPACITY: 2,150 GPM

ADDITIONAL PUMPS:

PROPULSION PUMP #1:

VERT-LINE PUMP, VLH10 HEAD, #13EH BOWL, 2,200 GPM @ 45' TDH, 40 HP, 230/460 V, 3 PH, 60 HZ, 1750 RPM, WP-1 MOTOR, BRONZE FITTED.

PUMP MAXIMUM FLOW CAPACITY: 2,800 GPM

PROPULSION PUMP #2:

VERT-LINE PUMP, VLH10 HEAD, #12FHL BOWL, 1,600 GPM @ 45' TDH, 42.5 HP, 230/460 V, 3 PH, 60 HZ, 1750 RPM, WP-1 MOTOR, BRONZE FITTED.

PUMP MAXIMUM FLOW CAPACITY: 2,125 GPM

PROPULSION PUMP #3:

VERT-LINE PUMP, VLH12 HEAD, #14FHM BOWL, 3,000 GPM @ 45' TDH, 75 HP, 230/460 V, 3 PH, 60 HZ, 1750 RPM, WP-1 MOTOR, BRONZE FITTED.

PUMP MAXIMUM FLOW CAPACITY: 4,750 GPM

TUBE SLIDE PUMP:

VERT-LINE PUMP, VLH10 HEAD, #15EH BOWL, 3,000 GPM @ 45' TDH, 50 HP, 230/460 V, 3 PH, 60 HZ, 1750 RPM, WP-1 MOTOR, BRONZE FITTED.

PUMP MAXIMUM FLOW CAPACITY: 3,600 GPM

BODY SLIDE PUMP:

VERT-LINE PUMP, VLH10 HEAD, #15FHL BOWL, 1,500 GPM @ 45' TDH, 25 HP, 230/460 V, 3 PH, 60 HZ, 1750 RPM, WP-1 MOTOR, BRONZE FITTED.

PUMP MAXIMUM FLOW CAPACITY: 2,125 GPM

MAIN POOL:

POOL CHARACTERISTICS:

TOTAL SURFACE AREA: 17,220 S.F.
WATER DEPTHS: 0'-0" to 5'-0"
MAIN AREA CAPACITY: 255,082 GALLONS
SLIDE AREA CAPACITY: 25,100 GALLONS
TOTAL POOL CAPACITY: 280,182 GALLONS
MAIN POOL AREA
TURNOVER RATE: 3 HOURS
SLIDE AREA
TURNOVER RATE: 1 HOUR
TOTAL POOL FLOW RATE: 1,156 GPM

EXISTING DRAINS: (5) 18"x18" SUMP TO REMAIN, GRATE TO BE REPLACED.

FILTER:

(2) NEPTUNE BENSON 84" DUAL CELL, MODEL 84-SDC, HIGH RATE SAND WITH AUTO BACKWASH.

FILTER PUMP:

VERTILINE, 1156 GPM @ 70' TDH, 25 HP, 460V, 3 PH.

PUMP MAXIMUM FLOW CAPACITY: 2000 GPM

ADDITIONAL PUMPS:

BODY FLUME PUMP:

VERTILINE, 1200 GPM @ 30' TDH, 19HP, 460V, 3 PH

PUMP MAXIMUM FLOW CAPACITY: 1300 GPM

WATER WORKS PUMP:

VERTILINE, 575 GPM @ 35' TDH, 7.5 HP, 460V, 3 PH

PUMP MAXIMUM FLOW CAPACITY: 640 GPM

ACTIVITY POOL:

POOL CHARACTERISTICS

TOTAL SURFACE AREA: 5,110 S.F.
CAPACITY: 239,520 GALLONS
TURNOVER RATE: 240 MIN.
FLOW RATE: 998 GPM

EXISTING DRAINS: (2) 18"x18"; SUMP TO REMAIN, GRATE TO BE REPLACED.

FILTER:

(1) NEPTUNE BENSON SDC/DDC SERIES, 84SDC-8, 84" DUAL CELL STEEL TANK, 77 S.F. OF SURFACE AREA, 12.96 GPM/S.F. FILTER AREA, AUTO BACKWASH.

FILTER PUMP:

AURORA PUMP 340-ES 5'x6'x11, 998 GPM @ 70' TDH, 25 HP, 230/460 V, 3 PH, 60 HZ, 1750 RPM, TEFC MOTOR END SUCTION, CLOSE COUPLED, BRONZE FITTED, EPOXY COATED VOLUTE.

PUMP MAXIMUM FLOW CAPACITY: 1550 GPM

ADDITIONAL PUMPS:

DROPSLIDE PUMP #1

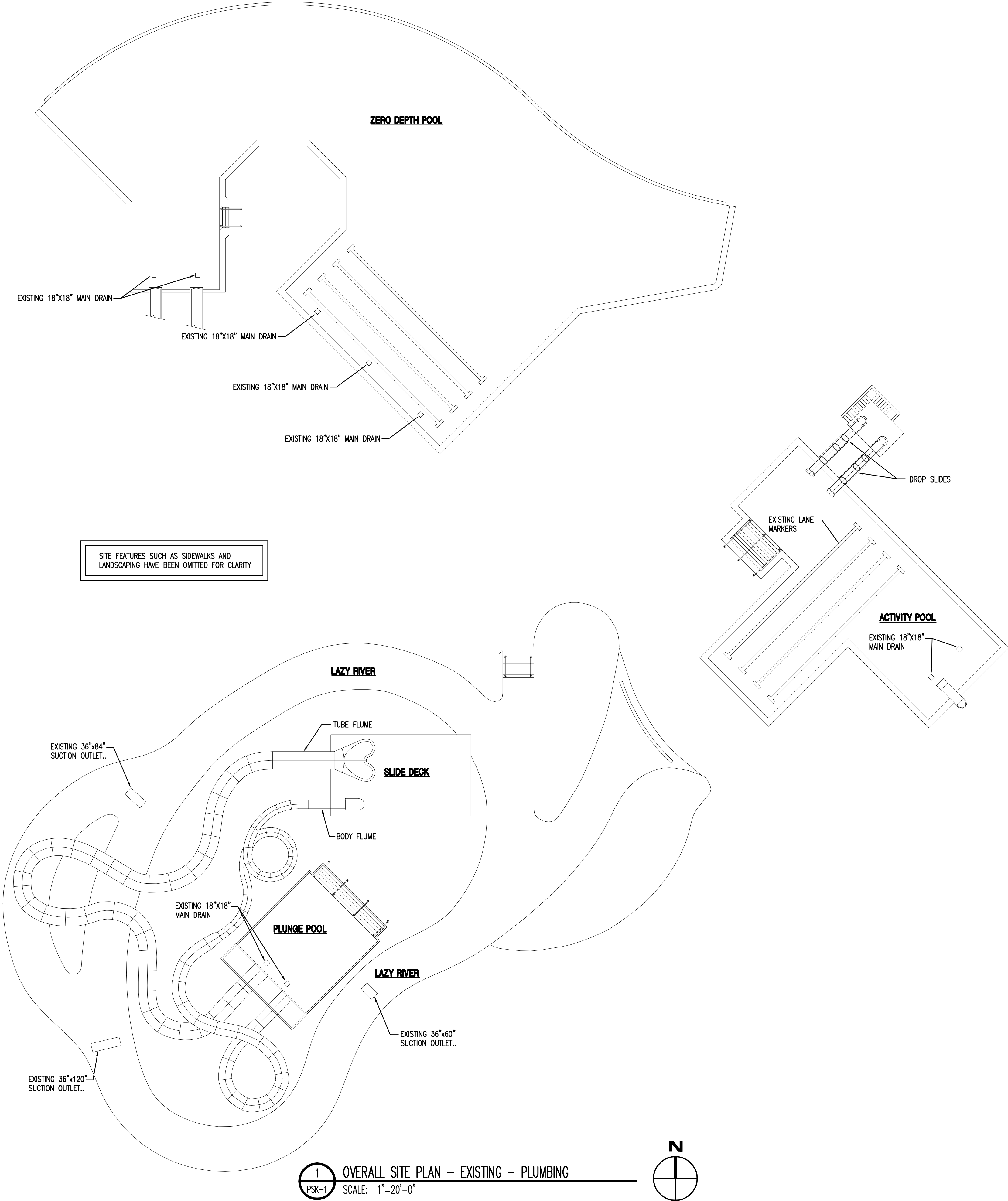
AURORA PUMP 340-ES 6'x6'x12, 2000 GPM @ 35' TDH, 50 HP, 230/460 V, 3 PH, 60 HZ, 1750 RPM, TEFC MOTOR END SUCTION, CLOSE COUPLED, BRONZE FITTED, EPOXY COATED VOLUTE.

PUMP MAXIMUM FLOW CAPACITY: 2500 GPM

DROPSLIDE PUMP #2:

AURORA PUMP 340-ES 5'x6'x11, 1000 GPM @ 35' TDH, 5 HP, 230/460 V, 3 PH, 60 HZ, 1750 RPM, TEFC MOTOR END SUCTION, CLOSE COUPLED, BRONZE FITTED, EPOXY COATED VOLUTE.

PUMP MAXIMUM FLOW CAPACITY: 1400 GPM



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Virginia Graeme Baker Pool & Spa Safety Act Improvements for:
VILLAGE OF ORLAND PARK
CENTENNIAL PARK FAMILY AQUATIC CENTER
16600 WEST AVENUE, ORLAND PARK, IL 60462

PROJECT NUMBER: 104-A-2	REVISION DATES:
PROJECT MANAGER: METRO	
DRAWN BY: METRO	
DATE: 04-19-2010	
SITE PLAN EXISTING PLUMBING	

PSK-1

EXISTING SWIMMING POOL DATA:

MAIN POOL:

EXISTING DRAINS: (5) 18"x18" SUMP TO REMAIN, GRATE TO BE REPLACED.

FILTER:
(2) NEPTUNE BENSON 84" DUAL CELL, MODEL 84-SDC, HIGH RATE SAND WITH AUTO BACKWASH.

FILTER PUMP:
VERTILINE, 1156 GPM @ 70' TDH, 25 HP, 460V, 3 PH.

PUMP MAXIMUM FLOW CAPACITY: 2,000 GPM

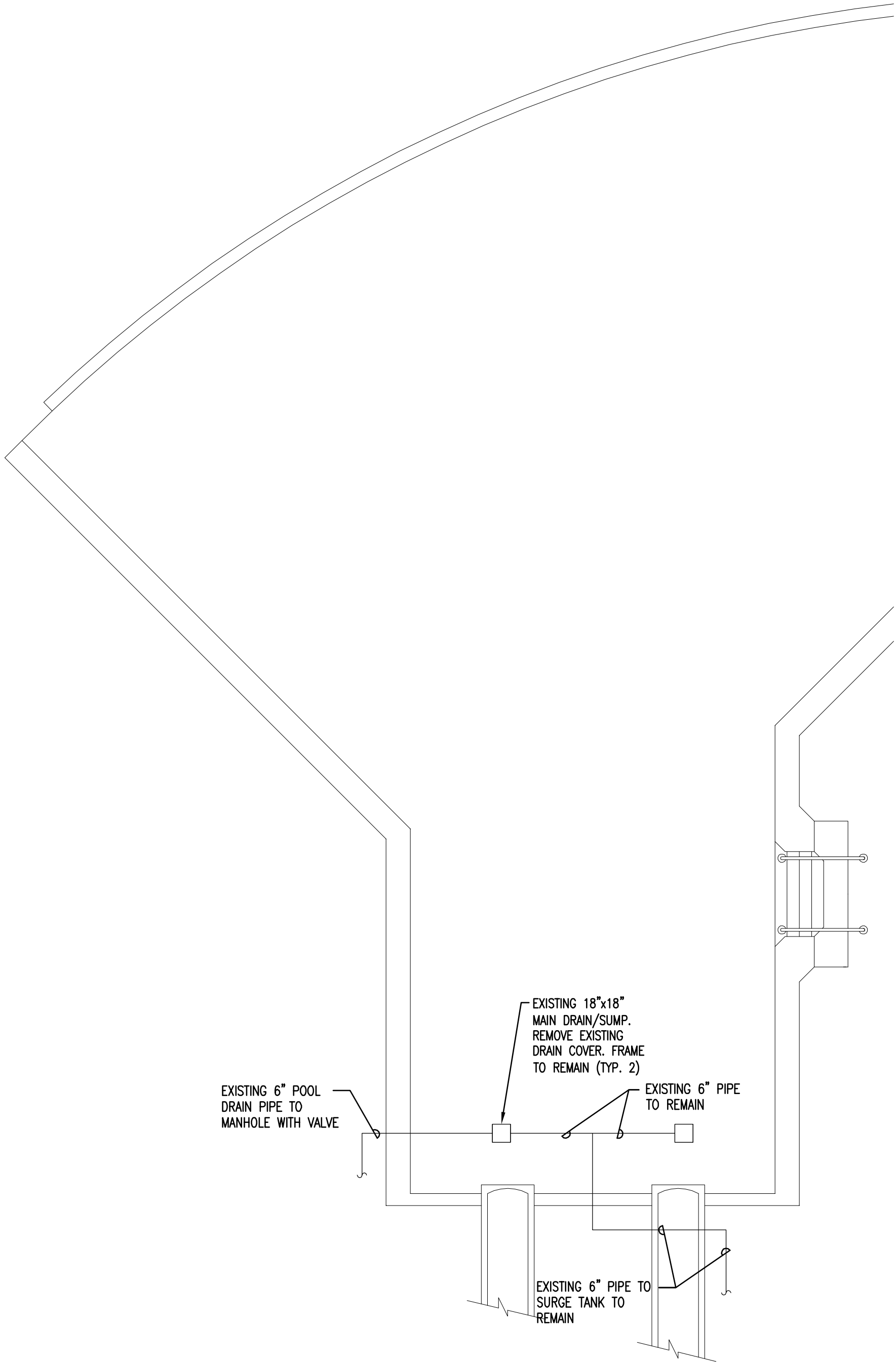
ADDITIONAL PUMPS:

BODY FLUME PUMP:
VERTILINE, 1200 GPM @ 30' TDH, 15HP, 460V, 3 PH

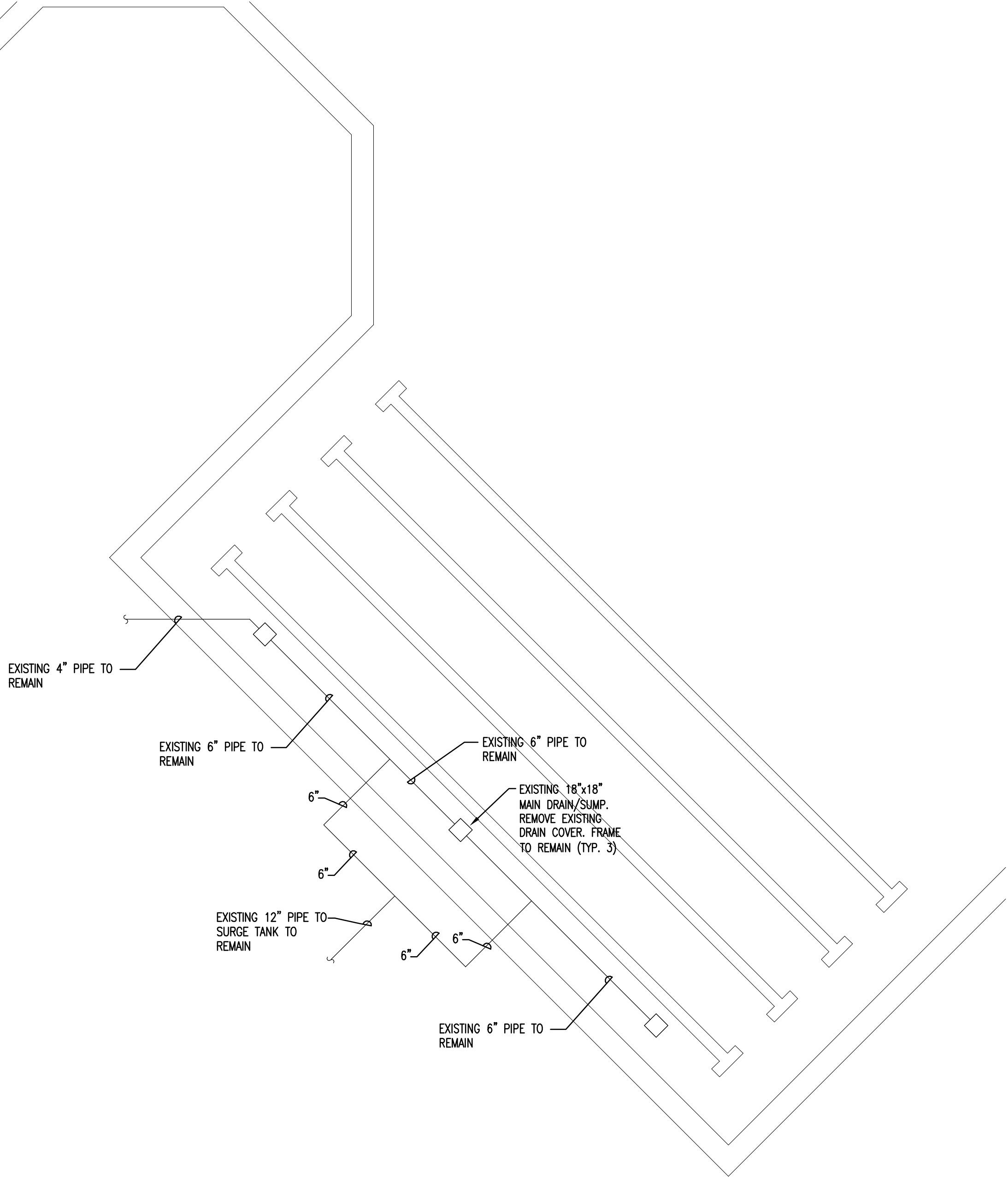
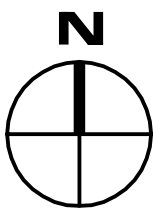
PUMP MAXIMUM FLOW CAPACITY: 1,300 GPM

WATER WORKS PUMP:
VERTILINE, 575 GPM @35' TDH, 7.5 HP, 460V, 3 PH

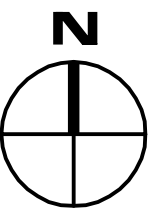
PUMP MAXIMUM FLOW CAPACITY: 640 GPM



1 MAIN POOL PLUNGE AREA – EXISTING – PLUMBING
PSK-2 SCALE: 1/8" = 1'-0"



1 MAIN POOL LAP AREA – EXISTING – PLUMBING
PSK-2 SCALE: 1/8" = 1'-0"



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Village of Orland Park
CENTENNIAL PARK FAMILY AQUATIC CENTER
16600 WEST AVENUE, ORLAND PARK, IL 60462

PROJECT NUMBER: 1004-A-2	REVISION DATES:
PROJECT MANAGER: METRO	
DRAWN BY: METRO	
DATE: 04-19-2010	
MAIN POOL PLUNGE & LAP AREA EXISTING PLUMBING	

NEW WORK SWIMMING POOL DATA:

MAIN POOL:

PROPOSED MAIN DRAINS:
FURNISH AND INSTALL (3) BEE SAFE 1'-46" DIA. GRATE COVERS WITH MANUFACTURER'S HARDWARE AND (2) NEPTUNE BENSON AEGIS GRATE COVERS WITH MANUFACTURER'S HARDWARE.

TOTAL FLOW CAPACITY: 792 GPM / BEE SAFE COVER AND 1432 GPM/AEGIS COVER 5240 GPM.

FILTER:
(2) NEPTUNE BENSON 84" DUAL CELL, MODEL 84-SDC, HIGH RATE SAND WITH AUTO BACKWASH.

FILTER PUMP:
VERTILINE, 1156 GPM @ 70' TDH, 25 HP, 460V, 3 PH.

PUMP MAXIMUM FLOW CAPACITY: 2,000 GPM

ADDITIONAL PUMPS:

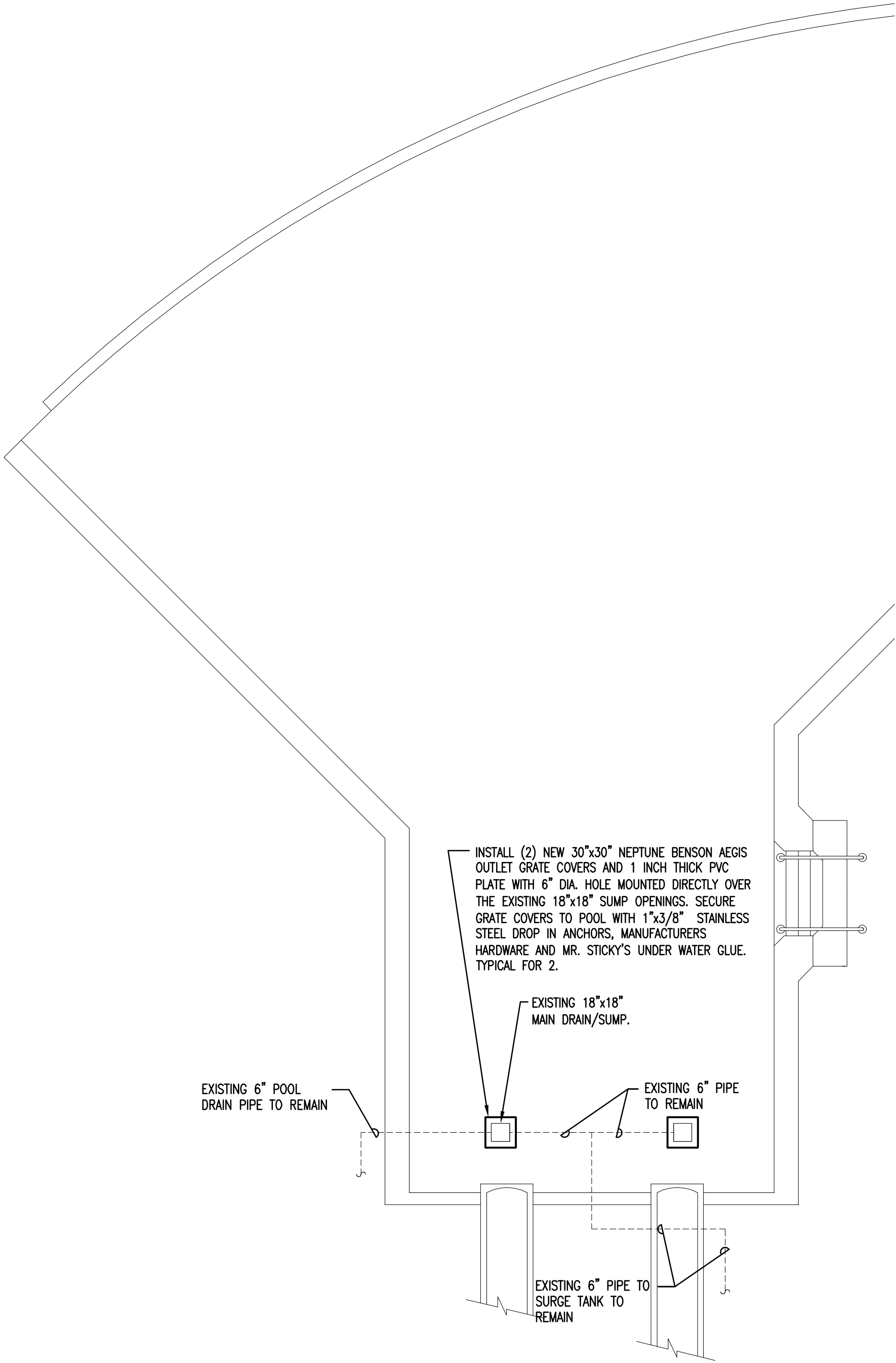
BODY FLUME PUMP:
VERTILINE, 1200 GPM @ 30' TDH, 15HP, 460V, 3 PH

PUMP MAXIMUM FLOW CAPACITY: 1,300 GPM

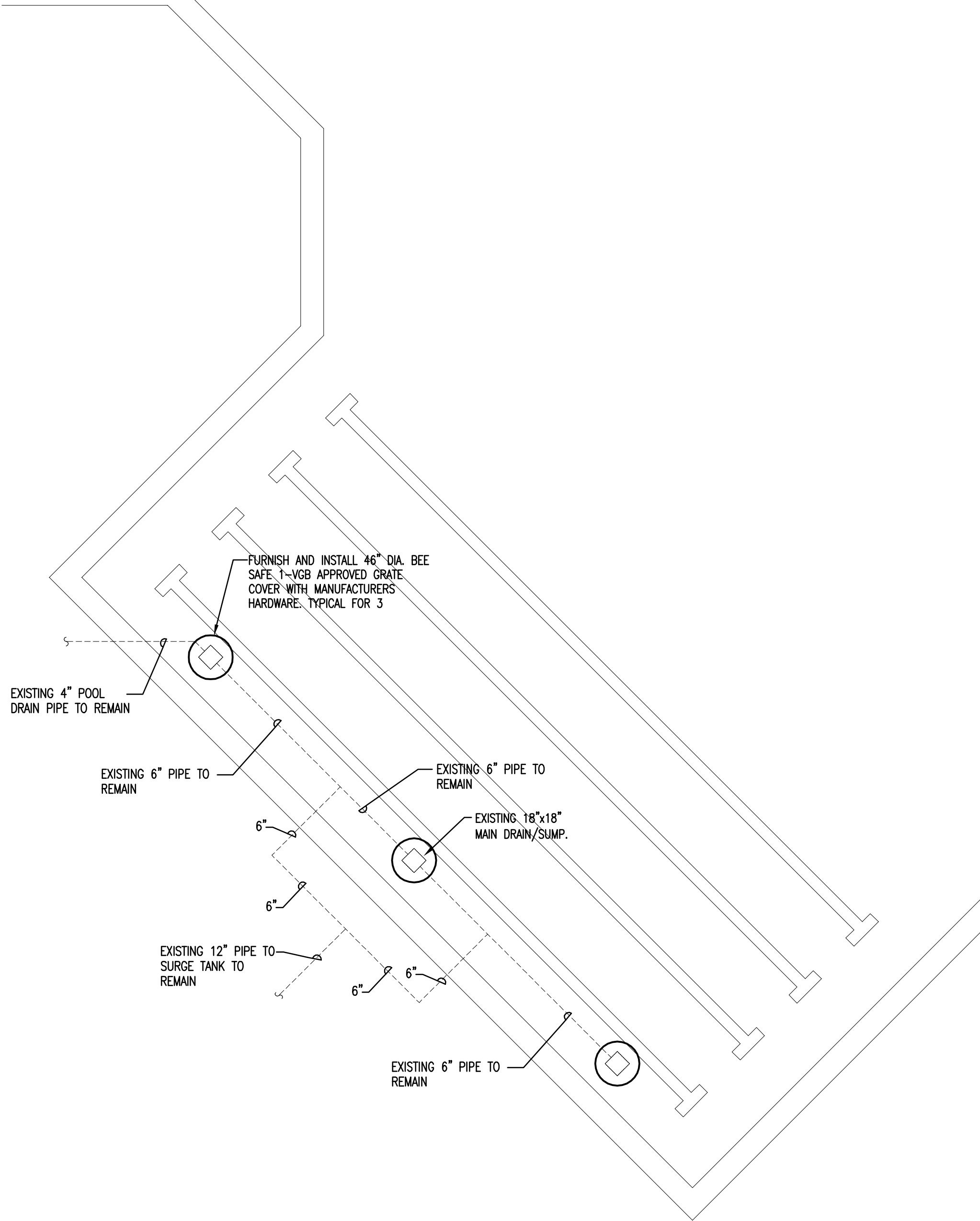
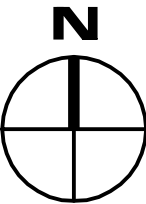
WATER WORKS PUMP:
VERTILINE, 575 GPM @35' TDH, 7.5 HP, 460V, 3 PH

PUMP MAXIMUM FLOW CAPACITY: 640 GPM

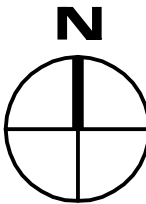
TOTAL PUMP CAPACITY: 3,940 GPM.



1 MAIN POOL PLUNGE AREA - NEW WORK - PLUMBING
PSK-3 SCALE: 1/8" = 1'-0"



1 MAIN POOL LAP AREA - NEW WORK - PLUMBING
PSK-3 SCALE: 1/8" = 1'-0"



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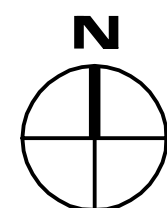
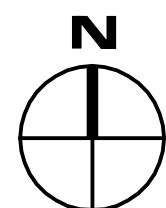
Virginia Graeme Baker Pool & Spa Safety Act Improvements for:
VILLAGE OF ORLAND PARK
CENTENNIAL PARK FAMILY AQUATIC CENTER
16600 WEST AVENUE, ORLAND PARK, IL 60462

PROJECT NUMBER: 1024-A-2	DESIGN DATES:
PROJECT MANAGER: METRO	DESIGN#3: 3-14-2011
DRAWN BY: METRO	
DATE: 04-19-2010	
MAIN POOL PLUNGE & LAP AREA NEW WORK PLUMBING	

PSK-3

PERMIT / BID ISSUE - FOR CONSTRUCTION

PUMP MAXIMUM FLOW CAPACITY: 2,700 GPM



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**VILLAGE OF ORLAND PARK
CENTENNIAL PARK FAMILY AQUATIC CENTER
15600 WEST AVENUE, ORLAND PARK, IL 60462**

ACTIVITY POOL
DEMO & NEW WORK PLAN
PLUMBING

PSK-4

PLUNGE POOL & LAZY RIVER:

PLUNGE POOL:
EXISTING DRAINS: (2) 18"x18" SUMP TO REMAIN, GRATE
TO BE REPLACED.

EXISTING DRAINS: (1) 3'x5', (1) 3'x7', (1) 3'x10'; SUMP TO REMAIN, GRATE TO BE REPLACED.

FILTER:
(1) NEPTUNE BENSON SDC/DDC SERIES # 102SDC-10,
102" DUAL CELL STEEL TANK, 113.5 S.F. OF SURFACE
AREA, 14.7 GPM/S.F. FILTER AREA, AUTO BACKWASH.

FILTER PUMP:
(1) AURORA PUMP 340-ES, 6x6x11, 1663 GPM @ 70' TDH,
40 HP, 230/460 V, 3 PH, 60 HZ, 1750 RPM, TEFC MOTOR
END SUCTION, CLOSE COUPLED, BRONZE FITTED,
EPOXY COATED VOLUTE.

PUMP MAXIMUM FLOW CAPACITY: 2,150 GPM

ADDITIONAL PUMPS:

PROPELSION PUMP #1:
VERTI-LINE PUMP, VLH10 HEAD. #13EH BOWL, 2,200 GPM
@ 45' TDH, 40 HP, 230/460 V, 3 PH, 60 HZ, 1750 RPM, WP-1
MOTOR, BRONZE FITTED.

PUMP MAXIMUM FLOW CAPACITY: 2,800 GPM

PROPULSION PUMP #2:
VERTI-LINE PUMP, VLH10 HEAD. #12FHL BOWL, 1,600 GPM @ 45' TDH, 425 HP, 230/460 V, 3 PH, 60 HZ, 1750 RPM, WP-1 MOTOR, BRONZE FITTED.

PUMP MAXIMUM FLOW CAPACITY: 2,125 GPM

PROPULSION PUMP #3:
VERTI-LINE PUMP, V LH12 HEAD. #14FHM BOWL, 3,000
GPM @ 45' TDH, 75 HP, 230/460 V, 3 PH, 60 HZ, 1750 RPM,
WP-1 MOTOR, BRONZE FITTED.

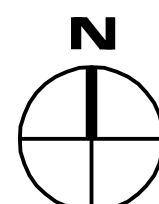
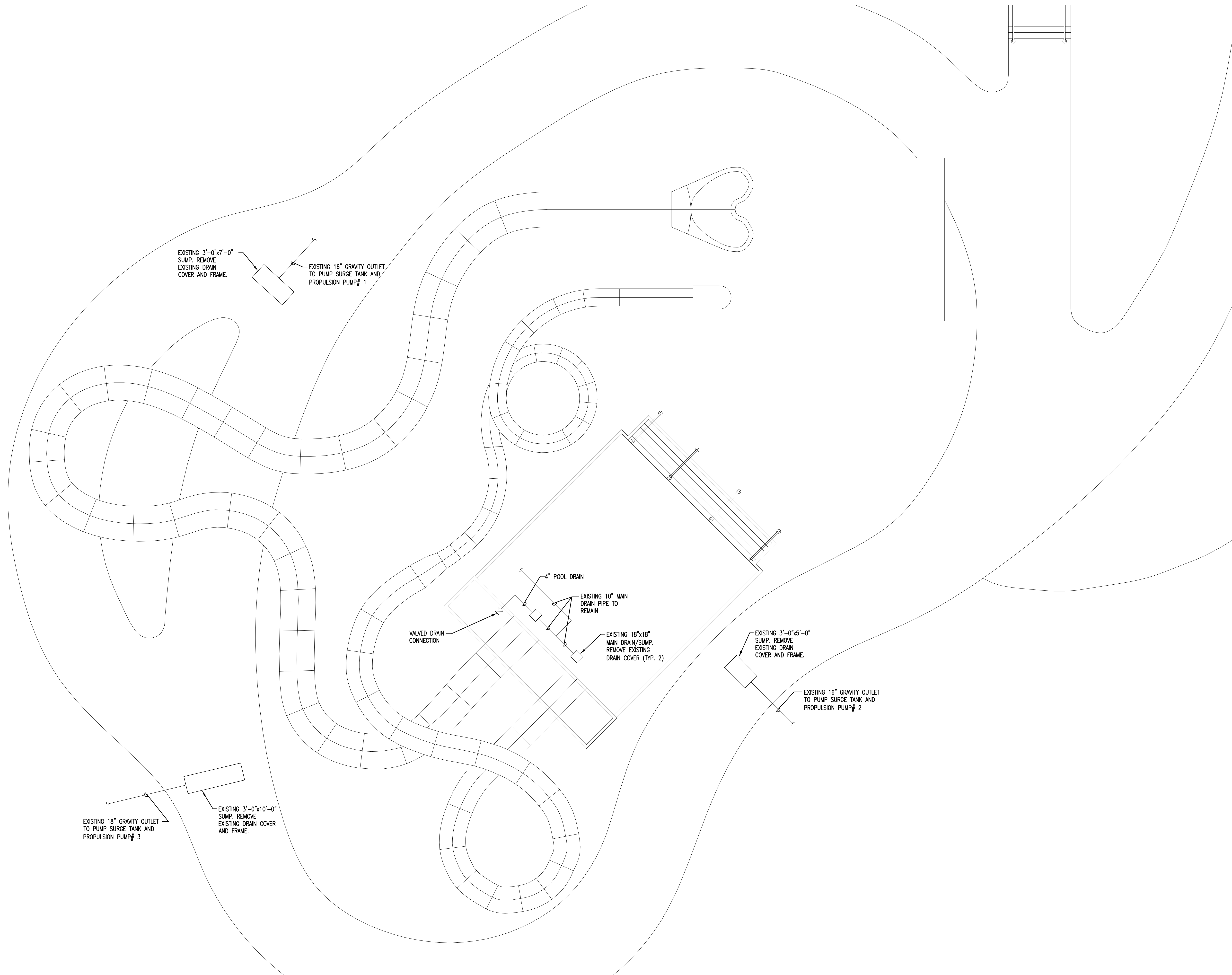
PUMP MAXIMUM FLOW CAPACITY: 4.750 GPM

TUBE SLIDE PUMP:
VERTI-LINE PUMP, VLH10 HEAD. #15EH BOWL, 3,000 GPM
@ 45' TDH, 50 HP, 230/460 V, 3 PH, 60 HZ, 1750 RPM, WP-1
MOTOR, BRONZE FITTED.

PUMP MAXIMUM FLOW CAPACITY: 3,600 GPM

BODY SLIDE PUMP:
VERTI-LINE PUMP, VLH10 HEAD, #15FHL BOWL, 1,500
GPM @ 45' TDH, 25 HP, 230/460 V, 3 PH, 60 HZ, 1750 RPM,
WP-1 MOTOR, BRONZE FITTED.

PUMP MAXIMUM FLOW CAPACITY: 2,125 GPM



EXISTING SWIMMING POOL DATA:

PLUNGE POOL & LAZY RIVER:

PLUNGE POOL PROPOSED MAIN DRAINS:
FURNISH AND INSTALL (2) NEPTUNE BENSON AEGIS
GRATE COVERS OVER EXISTING 18"x18" SUMPS WITH
MANUFACTURERS HARDWARE. FLOW IS 1,432 GPM /
GRATE

TOTAL FLOW FOR THIS AREA: 2,864 GPM

LAZY RIVER PROPOSED DRAINS:
FURNISH AND INSTALL WITH MANUFACTURES
HARDWARE, (6) 24"x 24" GRATES OVER EXISTING 36"x60"
SUMP. (8) 24"x24" GRATES OVER EXISTING 36"x84"
SUMP, (10) 24"x24" GRATES OVER EXISTING 36"x120"
SUMP. GRATES MANUFACTURED BY PADDOCK
INDUSTRIES

997.92 GPM PER GRATE

FILTER:

(1) NEPTUNE BENSON SDC/DDC SERIES # 102SDC-10,
102" DUAL CELL STEEL TANK, 113.5 S.F. OF SURFACE
AREA, 14.7 GPM/S.F. FILTER AREA, AUTO BACKWASH.

FILTER PUMP:

(1) AURORA PUMP 340-ES, 6x6x11, 1663 GPM @ 70' TDH,
40 HP, 230/460 V, 3 PH, 60 HZ, 1750 RPM, TEFC MOTOR
END SUCTION, CLOSE COUPLED, BRONZE FITTED,
EPOXY COATED VOLUTE.

MAX PUMP CAPACITY: 2,200 GPM

ADDITIONAL PUMPS:

PROPULSION PUMP #1:

VERTI-LINE PUMP, VLH10 HEAD, #13EH BOWL, 2,200 GPM
@ 45' TDH, 40 HP, 230/460 V, 3 PH, 60 HZ, 1750 RPM, WP-1
MOTOR, BRONZE FITTED.

MAX PUMP CAPACITY: 2,800 GPM

PROPULSION PUMP #2:

VERTI-LINE PUMP, VLH10 HEAD, #12FHL BOWL, 1,600
GPM @ 45' TDH, 425 HP, 230/460 V, 3 PH, 60 HZ, 1750
RPM, WP-1 MOTOR, BRONZE FITTED.

MAX PUMP CAPACITY: 2,125 GPM

PROPULSION PUMP #3:

VERTI-LINE PUMP, VLH12 HEAD, #14FHM BOWL, 3,000
GPM @ 45' TDH, 75 HP, 230/460 V, 3 PH, 60 HZ, 1750 RPM,
WP-1 MOTOR, BRONZE FITTED.

MAX PUMP CAPACITY: 4,750 GPM

TUBE SLIDE PUMP:

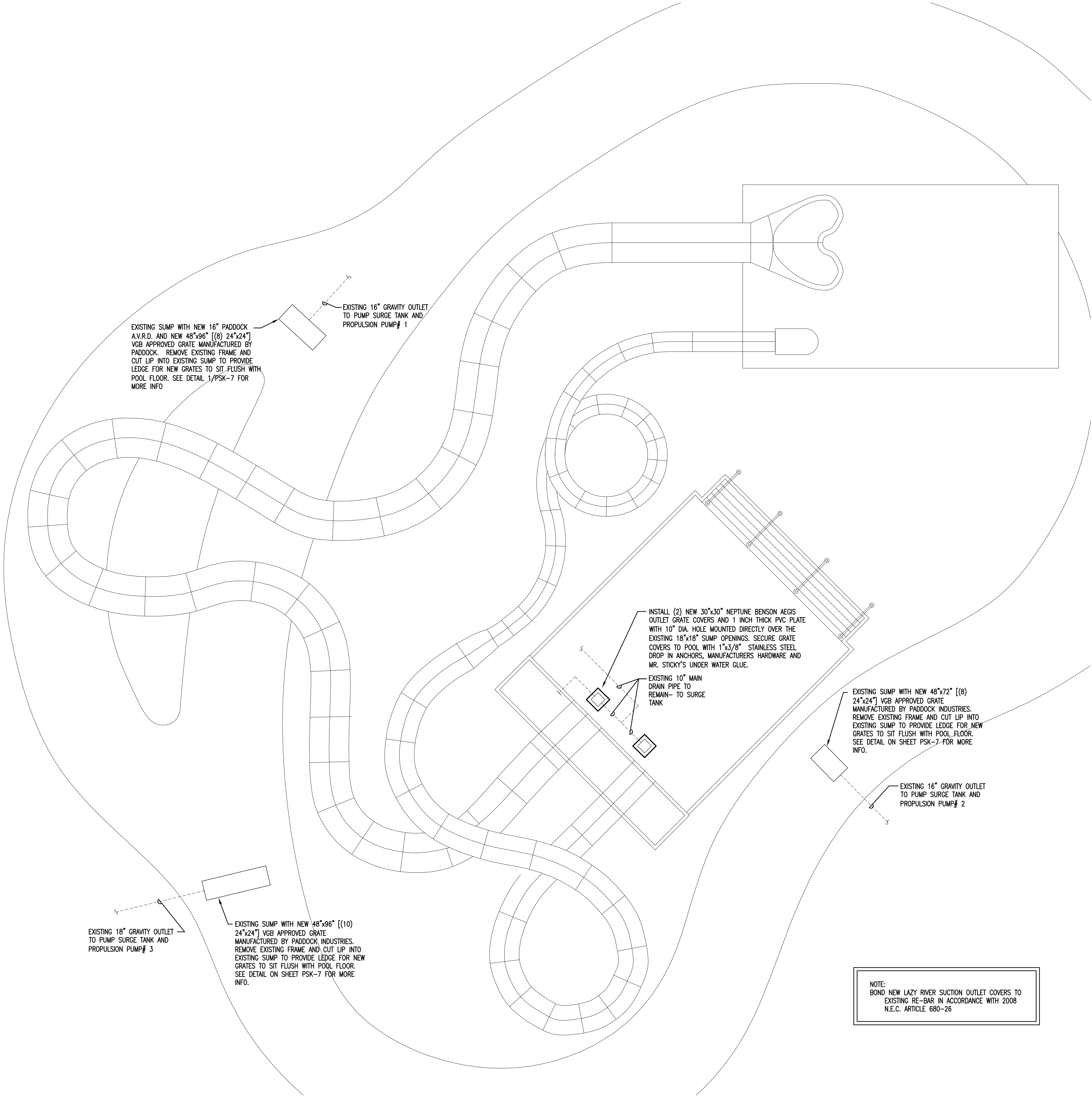
VERTI-LINE PUMP, VLH10 HEAD, #15EH BOWL, 3,000 GPM
@ 45' TDH, 50 HP, 230/460 V, 3 PH, 60 HZ, 1750 RPM, WP-1
MOTOR, BRONZE FITTED.

MAX PUMP CAPACITY: 3,600 GPM

BODY SLIDE PUMP:

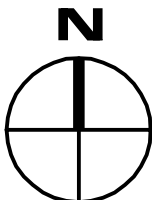
VERTI-LINE PUMP, VLH10 HEAD, #15FHL BOWL, 1,500
GPM @ 45' TDH, 25 HP, 230/460 V, 3 PH, 60 HZ, 1750 RPM,
WP-1 MOTOR, BRONZE FITTED.

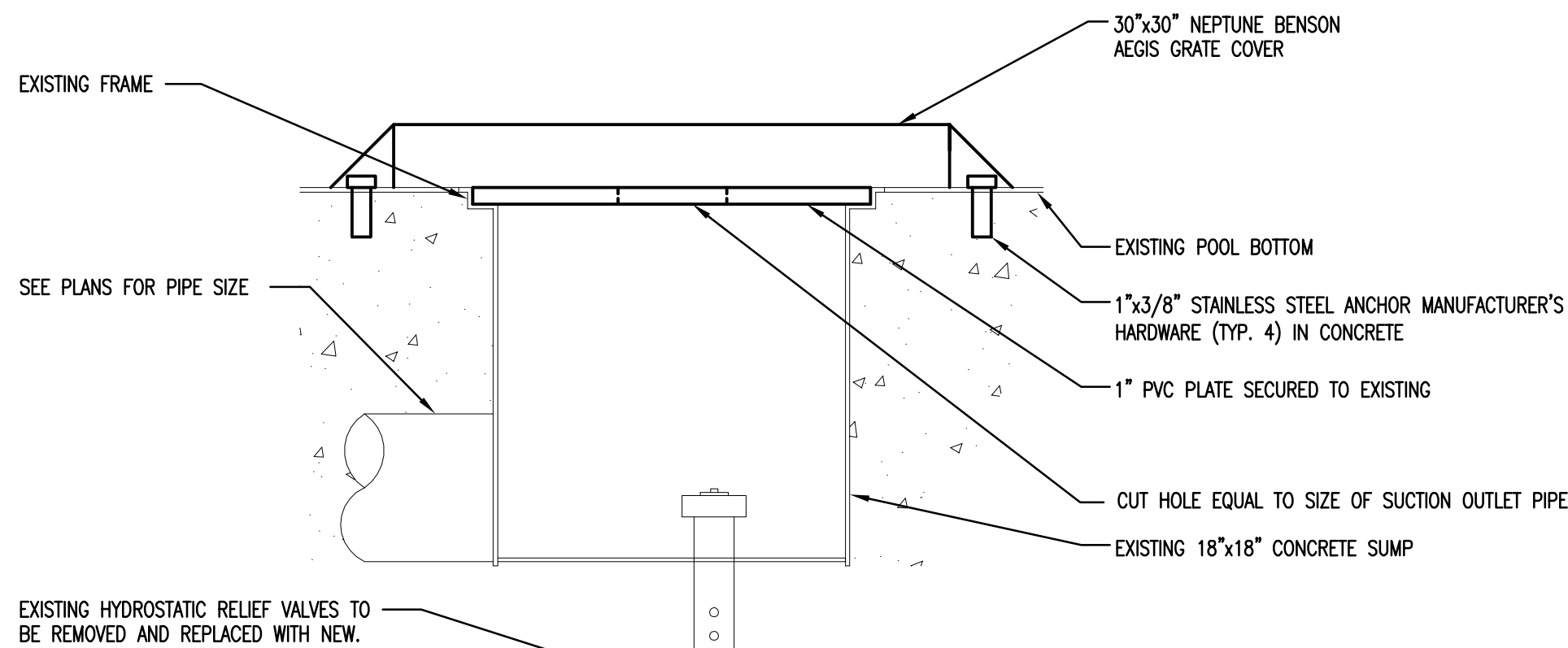
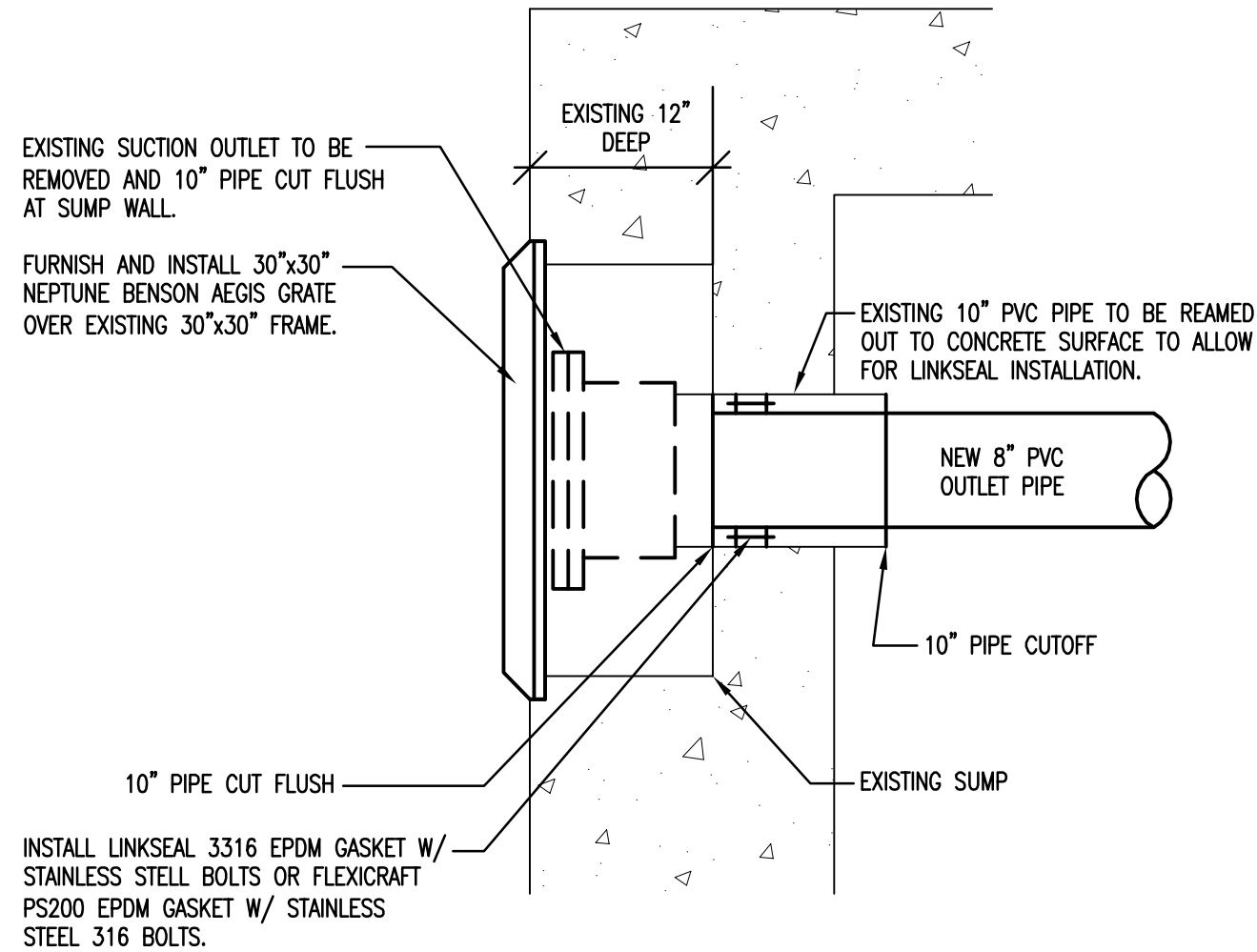
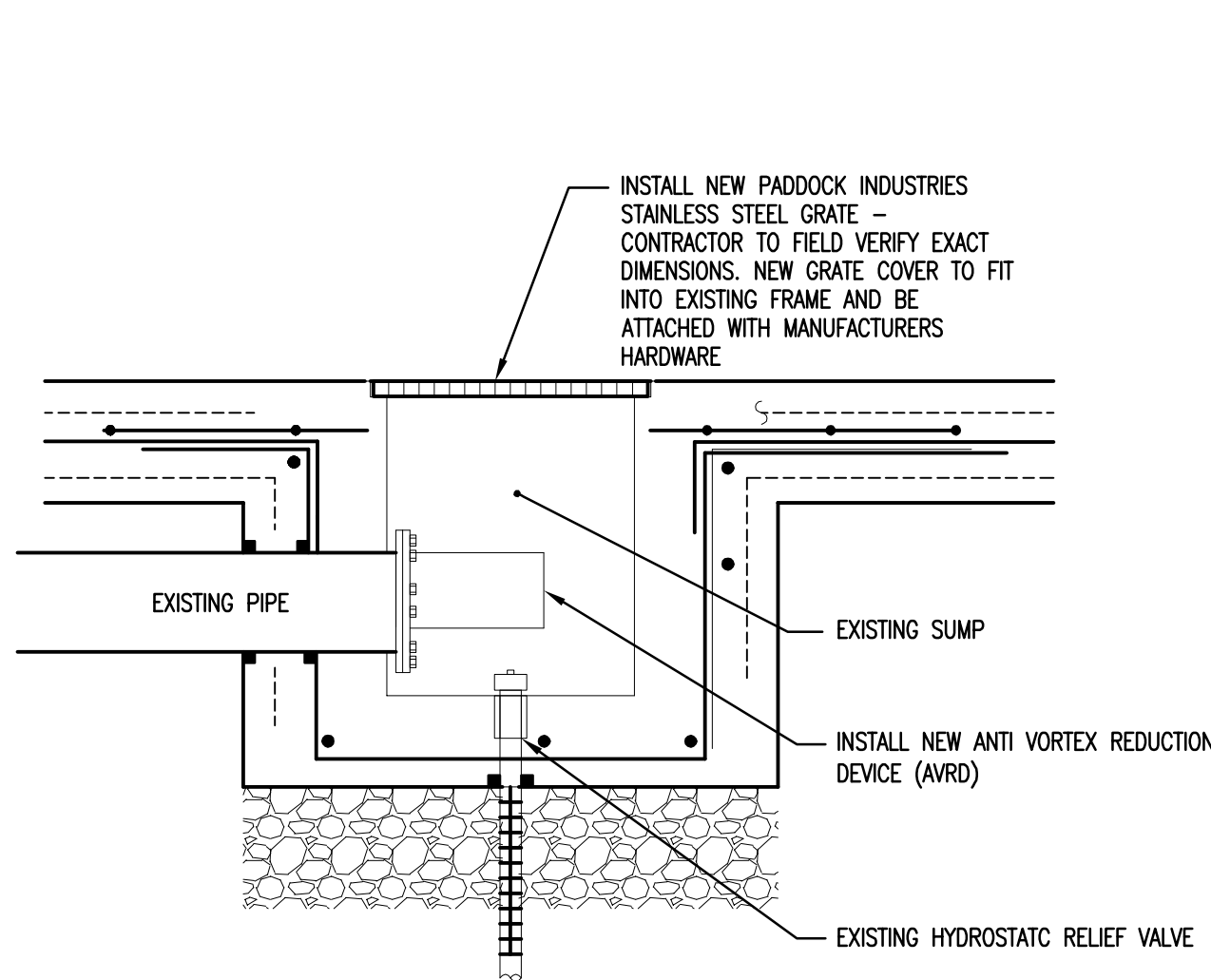
MAX PUMP CAPACITY: 2,125 GPM



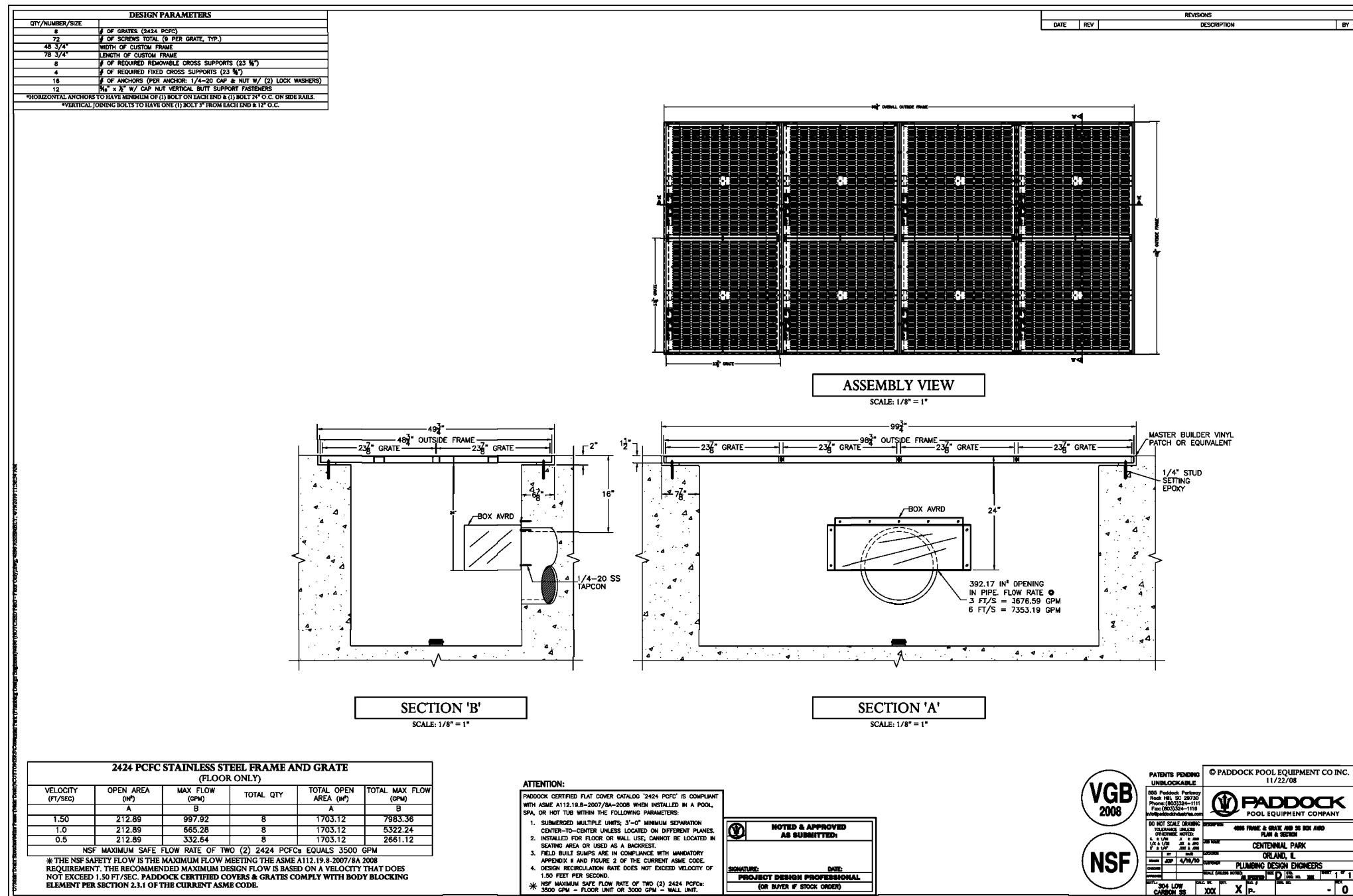
THE DESIGN OF THE FIELD FABRICATED OUTLETS FOR THIS DESIGN IS IN ACCORDANCE WITH ASME STANDARD A112.19.8-2007, SECTION 2.3.1.7, BASED UPON THE FOLLOWING CRITERIA:

- REQUIRE TOOLS TO OPEN - YES; EXISTING FRAME WILL BE DRILLED AND TAPPED TO ALIGN WITH THE SCREW HOLES ON THE GRATES. THE INSERTS WILL BE THREADED AND BE THE MANUFACTURER'S HARDWARE.
- THE PADDOCK SUBMERGED SUCTION OUTLET COVERS SPECIFIED WERE NSF TESTED AND APPROVED UNDER THE ASME A112.19.8A-2008 AND FEBRUARY 16, 2009. THEY PASSED ALL TESTS FOR ULTRA-VIOLET, BODY ENTRAPMENT, VERTICAL LOAD, HORIZONTAL LOAD, EXCESS LOAD, SHEAR TEST, VACUUM TEST, PULL TEST AND FINGER TEST. THEY ARE APPROVED FOR INSTALLATION ON FIELD FABRICATED SUMPS AND ARE EXEMPT FROM THE HAIR TEST IN ACCORDANCE WITH SECTION 4.1.4 OF THE ASME A112 STANDARD. DOCUMENTATION AND APPROVAL OF THESE SAFETY COVERS IS LISTED ON THE NSF WEBSITE AND HAS BEEN SUPPLIED TO THE DEPARTMENT BY THE MANUFACTURER.
- THE SUMPS ARE TO BE MADE COMPLIANT TO THE DIMENSIONS FOR CONSTRUCTION CONFORM TO ASME STANDARD A112, SECTION 2.3.4, FIGURE 2 BY INSTALLING AVRD DEVICE OR BLANK-OFF PLATES ON THE SUCTION OUTLET PIPES. AVRD WILL PROVIDE 1.5 TIMES DISTANCE IN ALL CASES.
- THE MAXIMUM FLOW THRU EACH 24"x24" COVER IS 997 GPM.

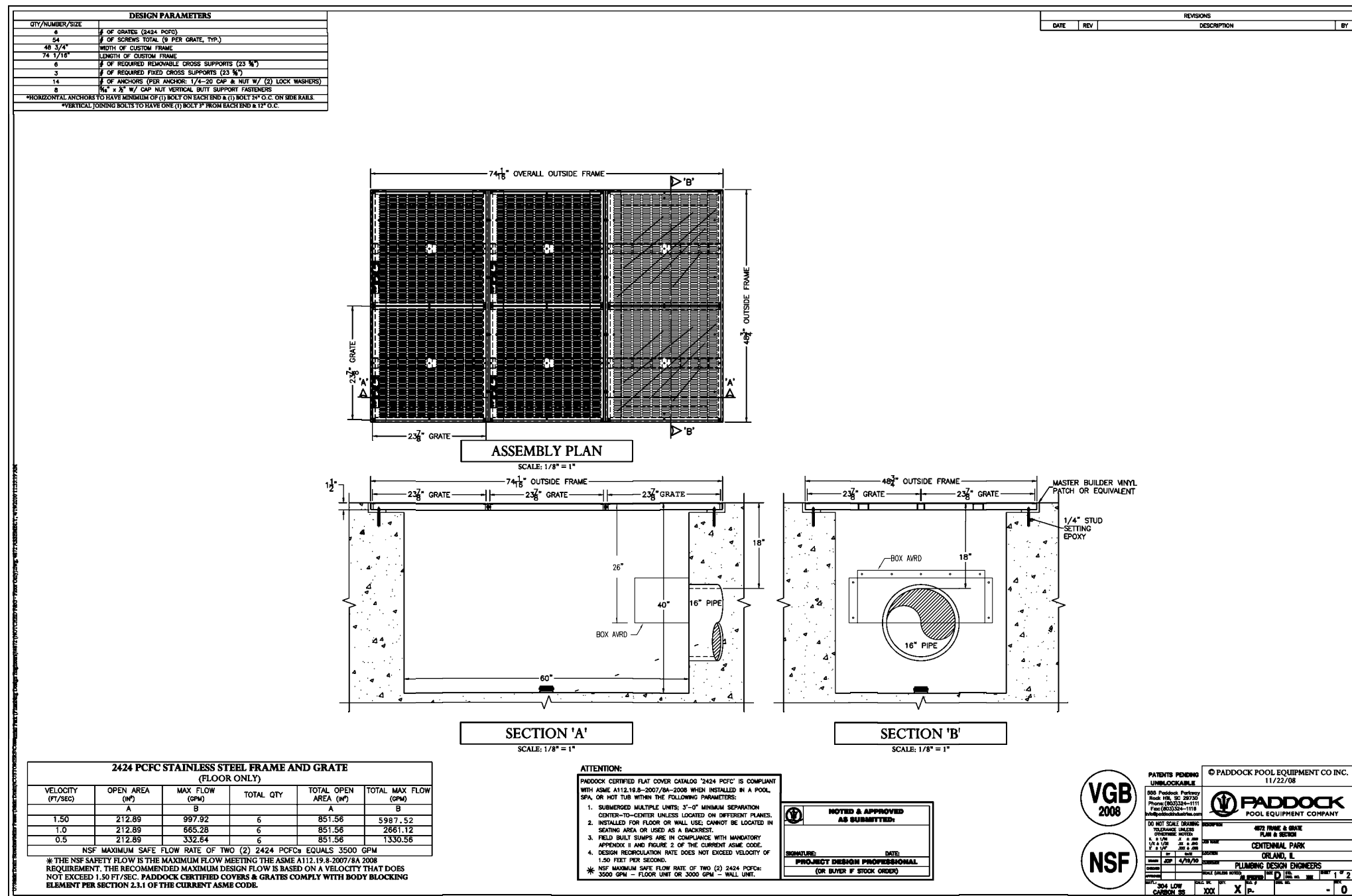




PUMP #1



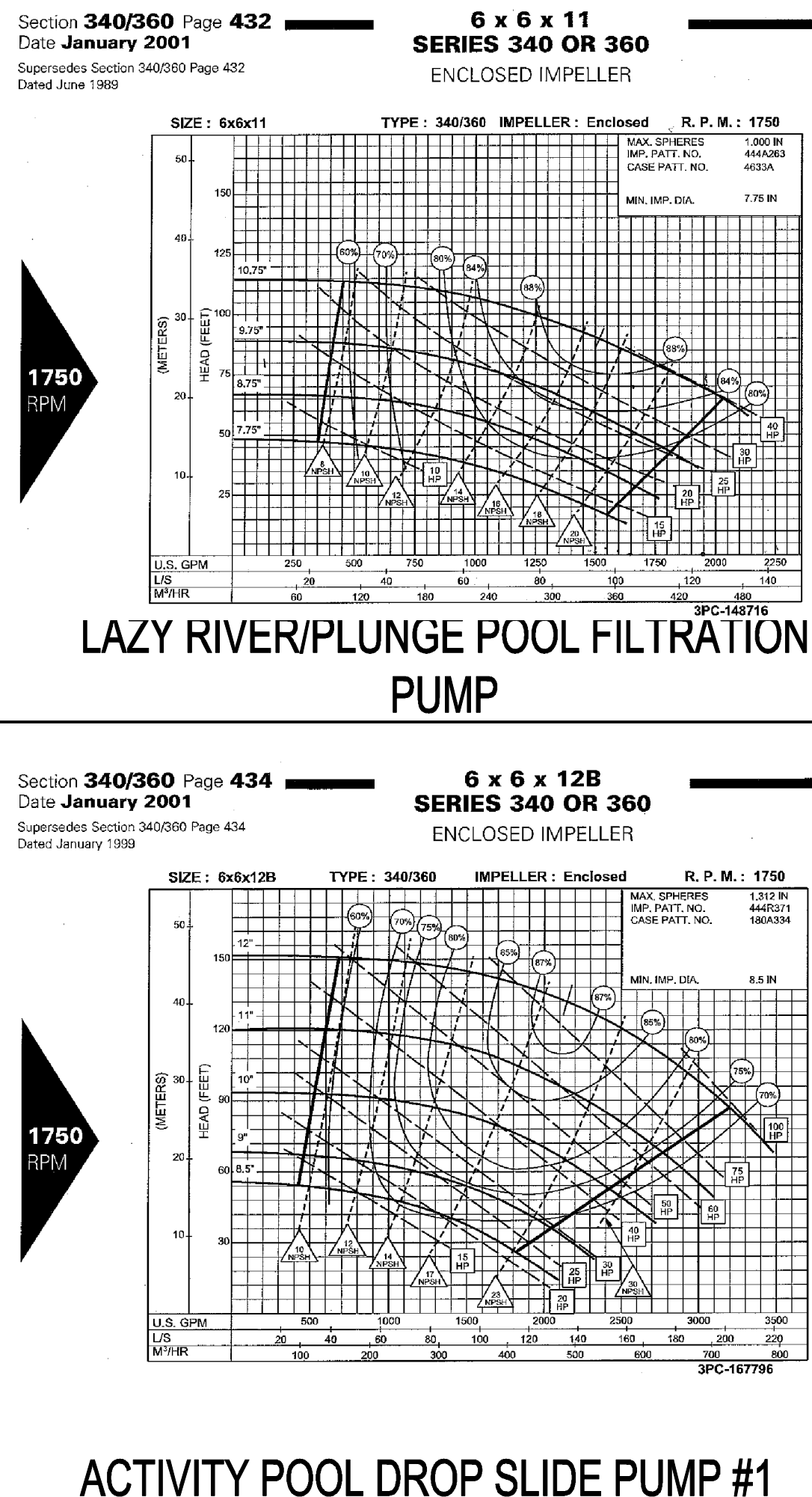
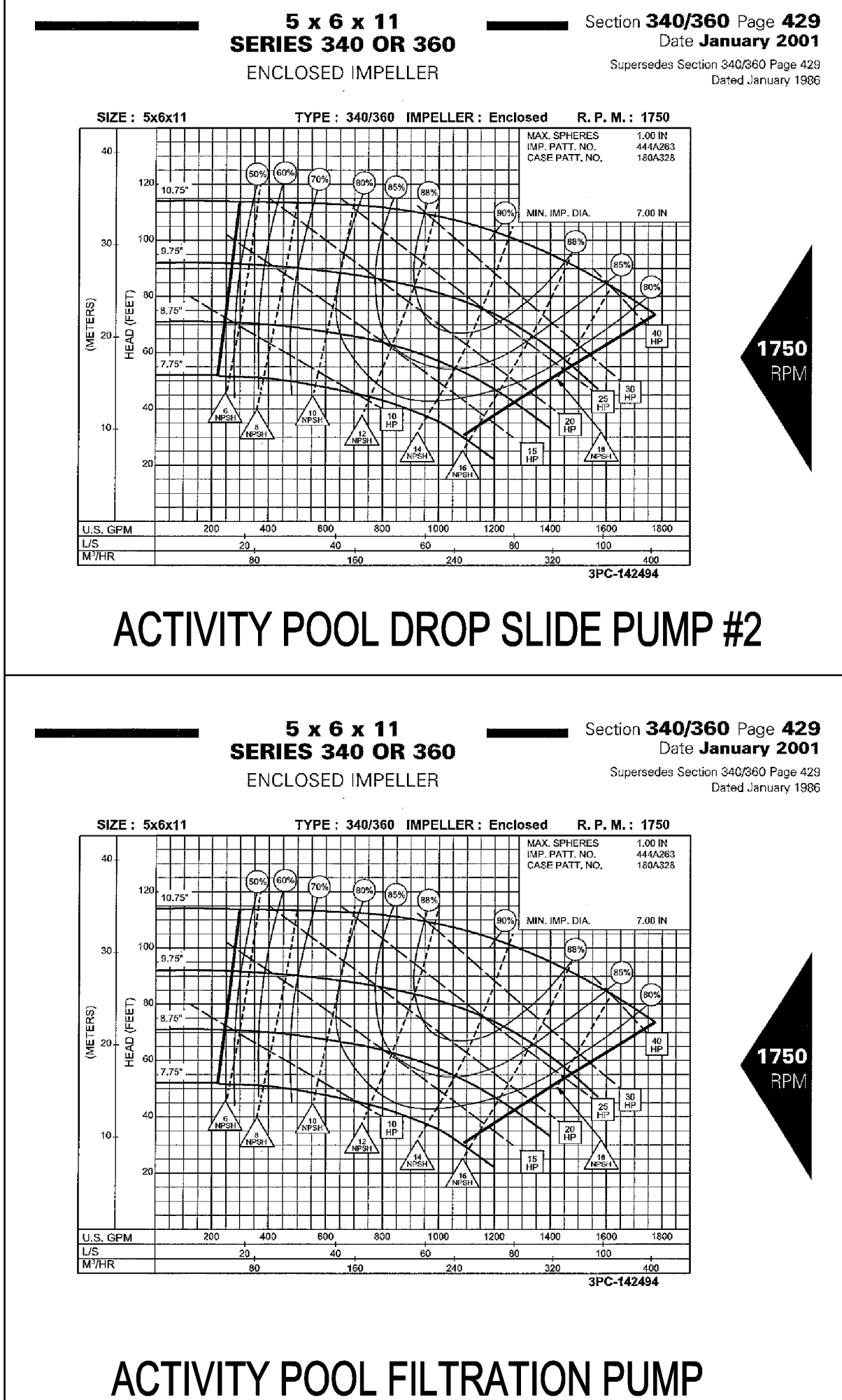
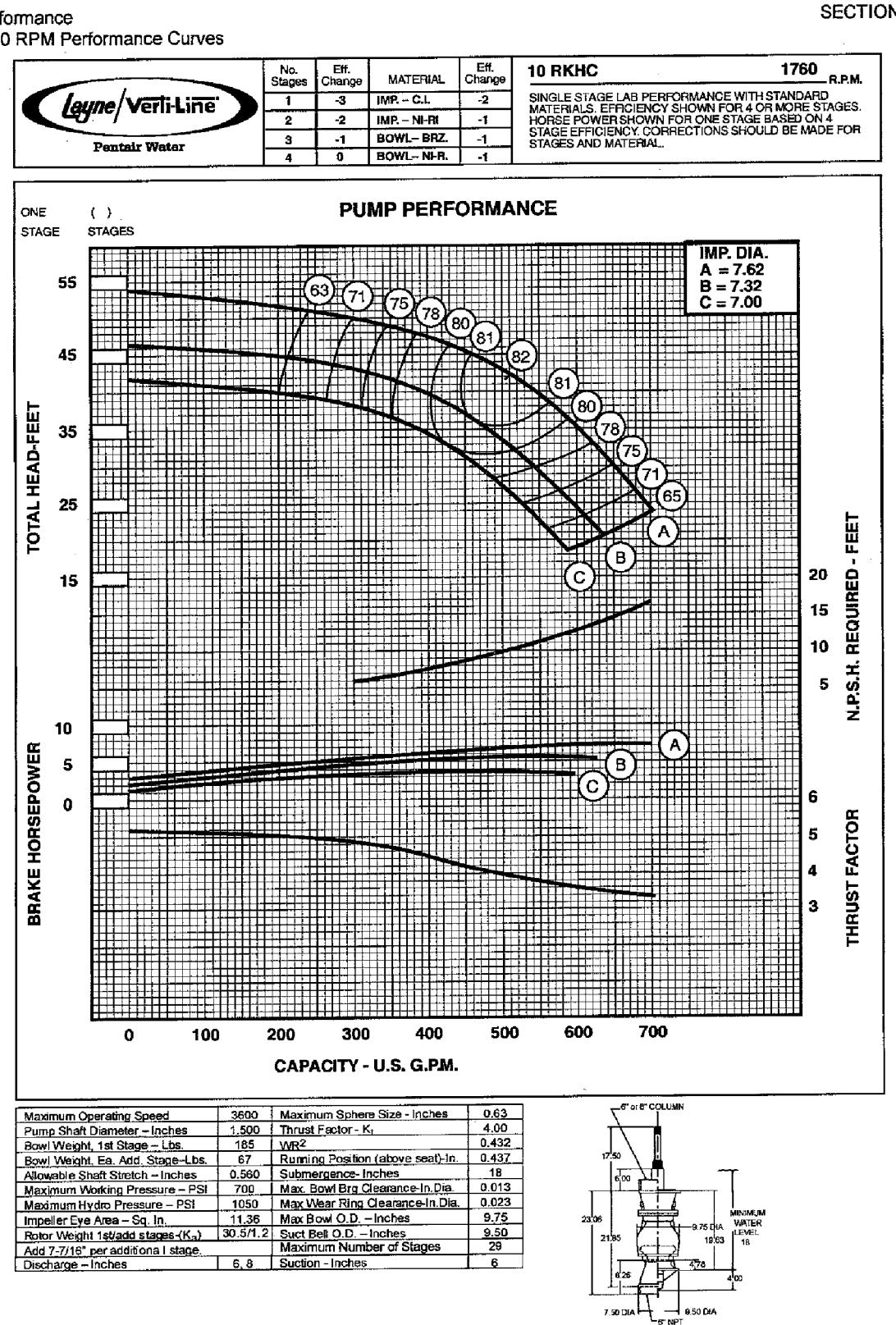
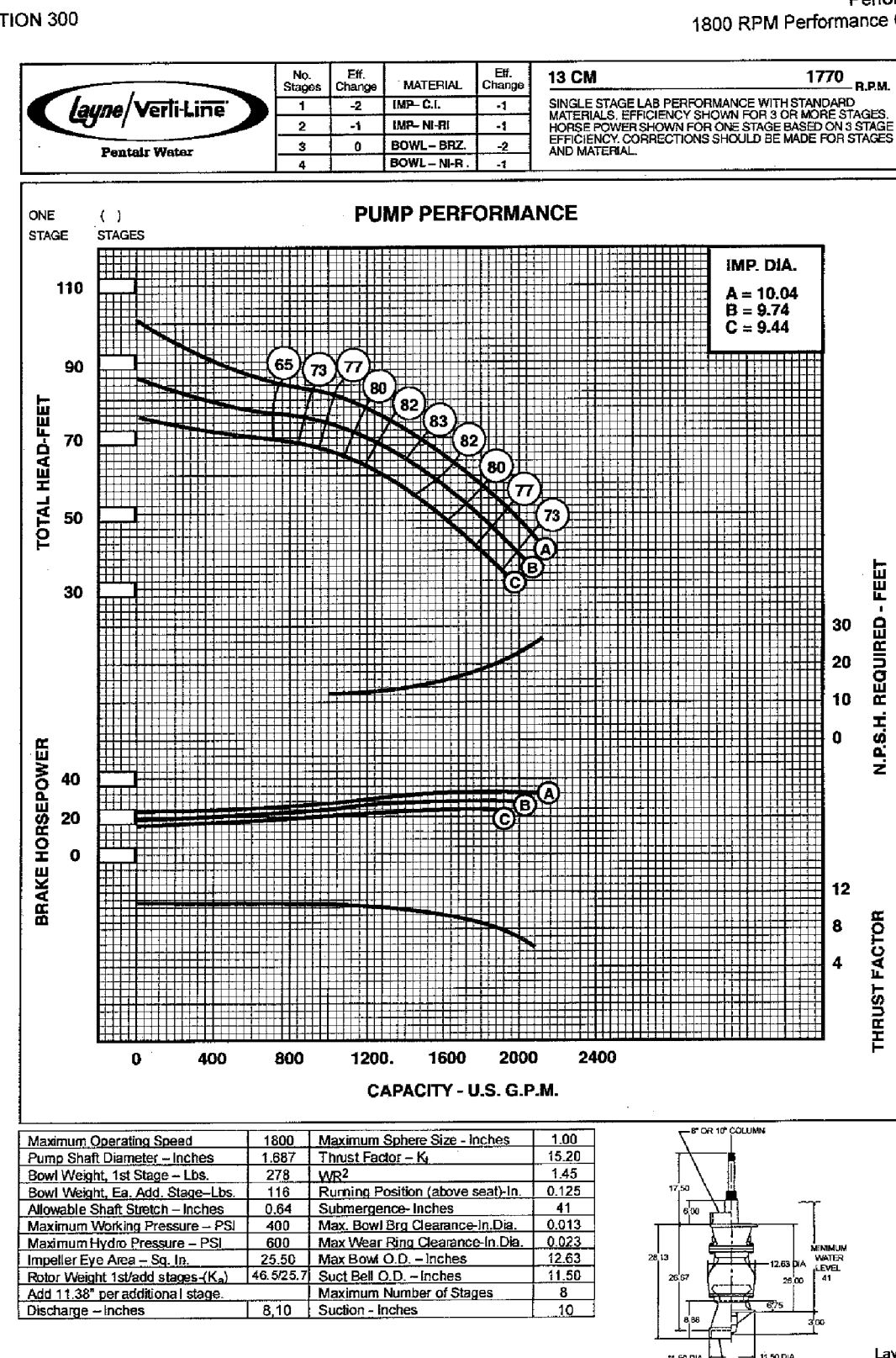
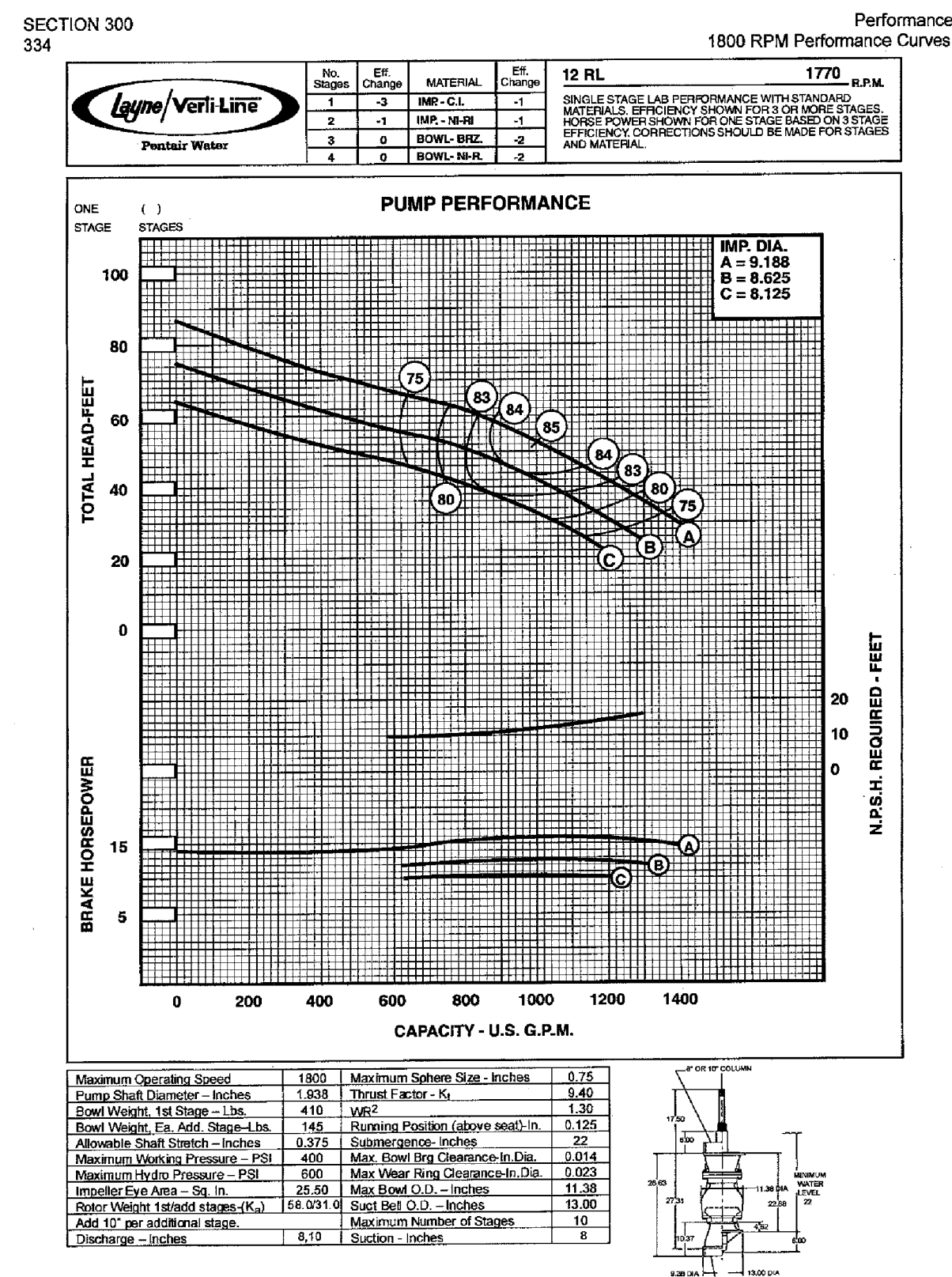
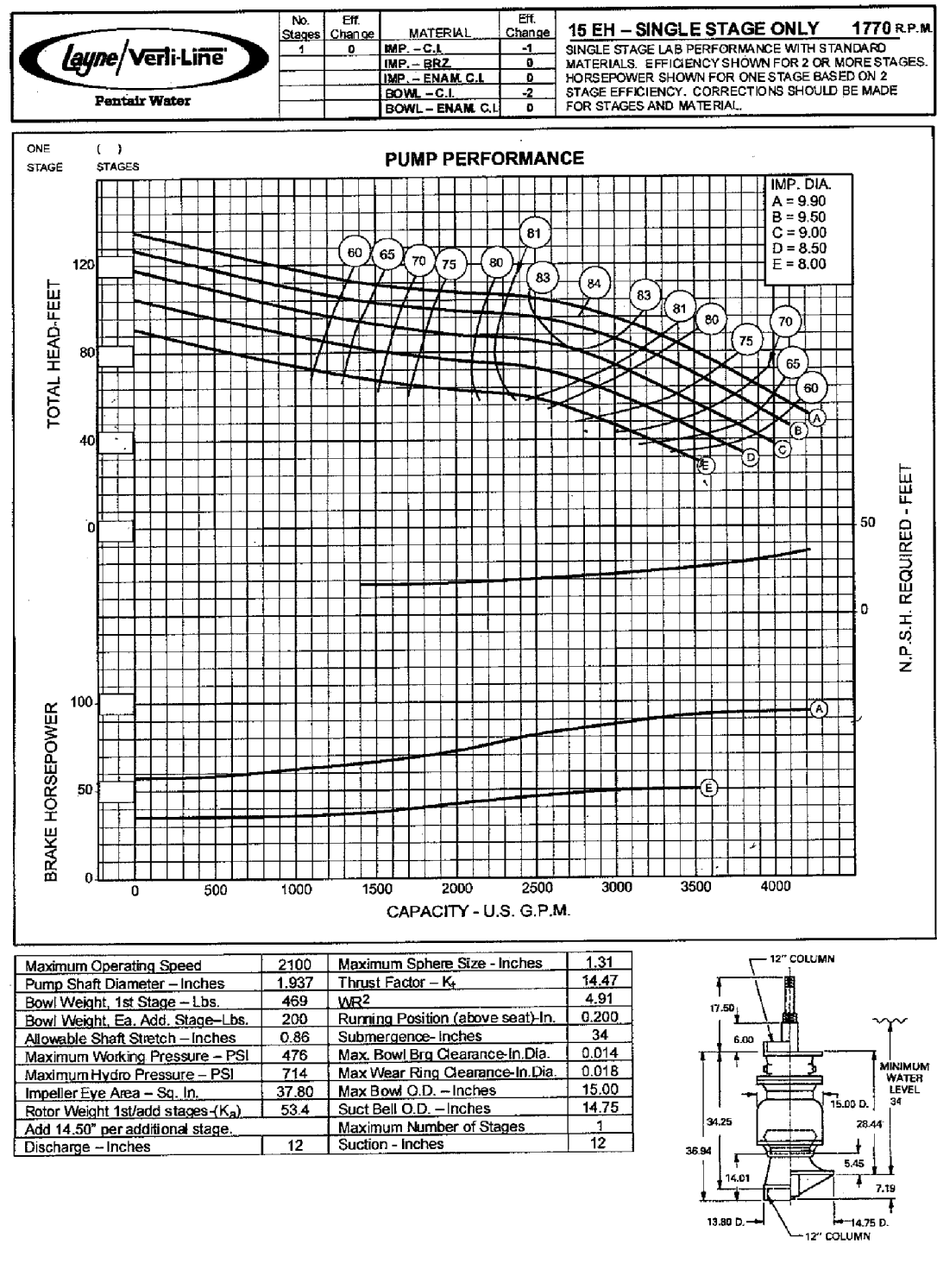
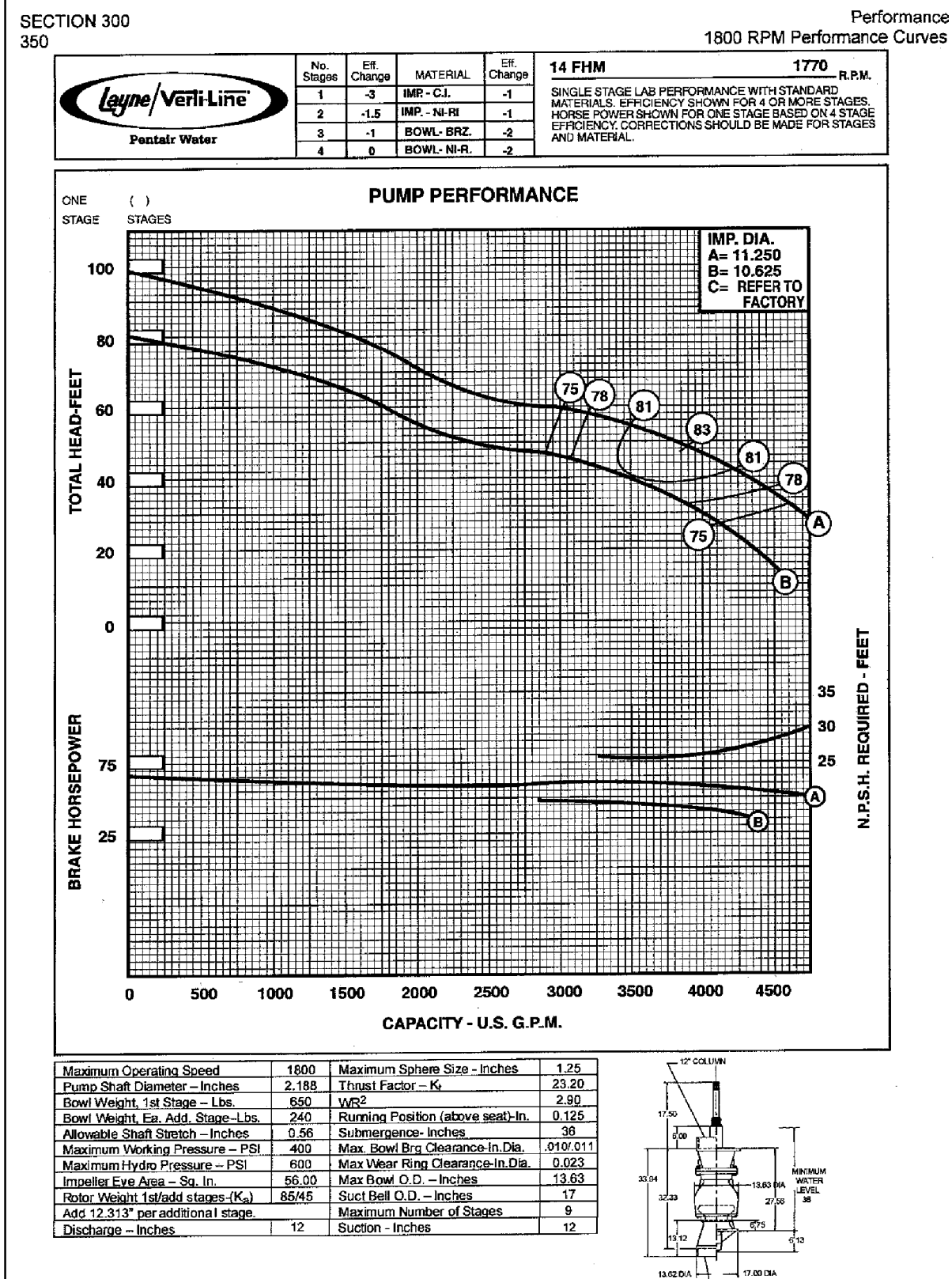
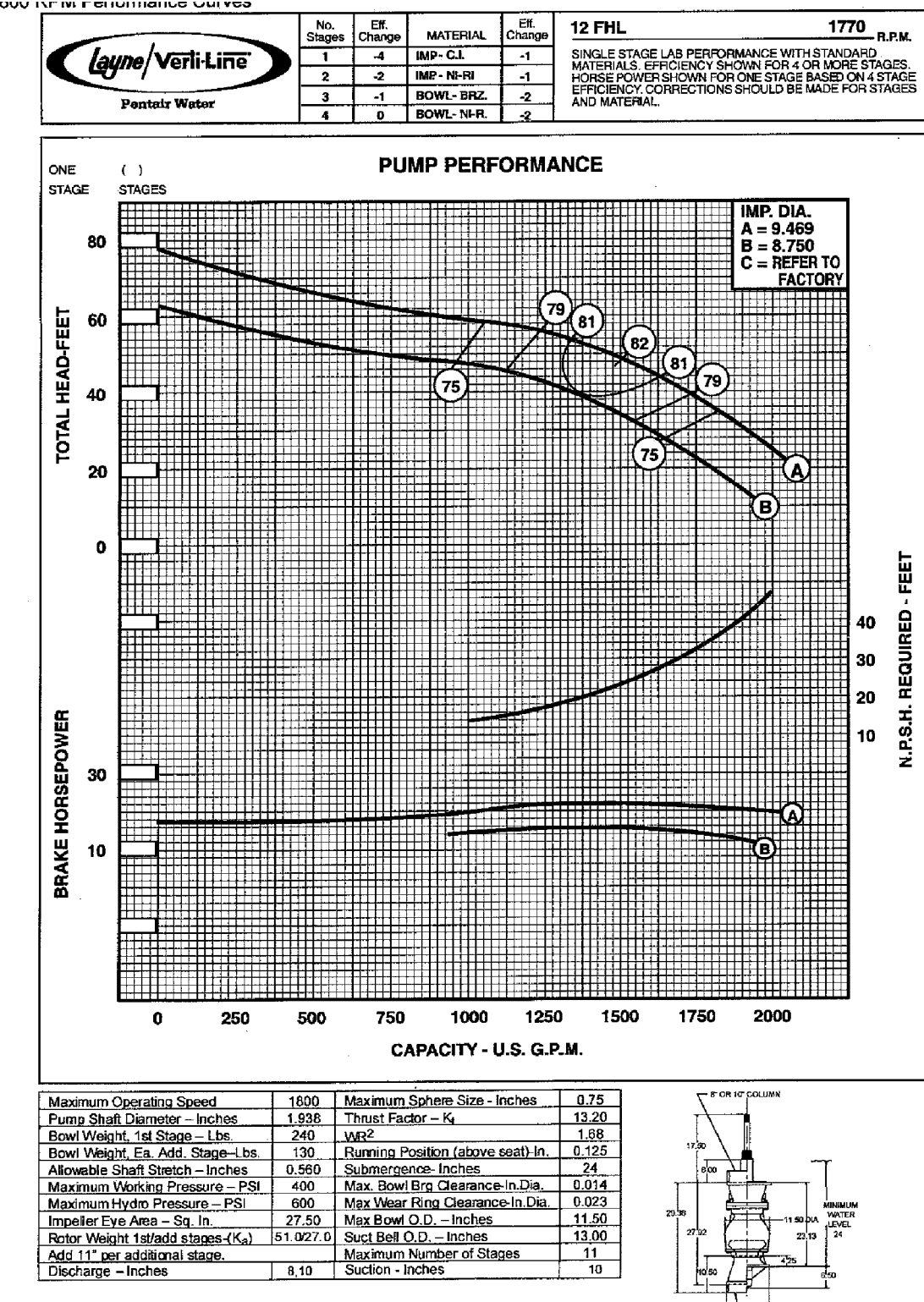
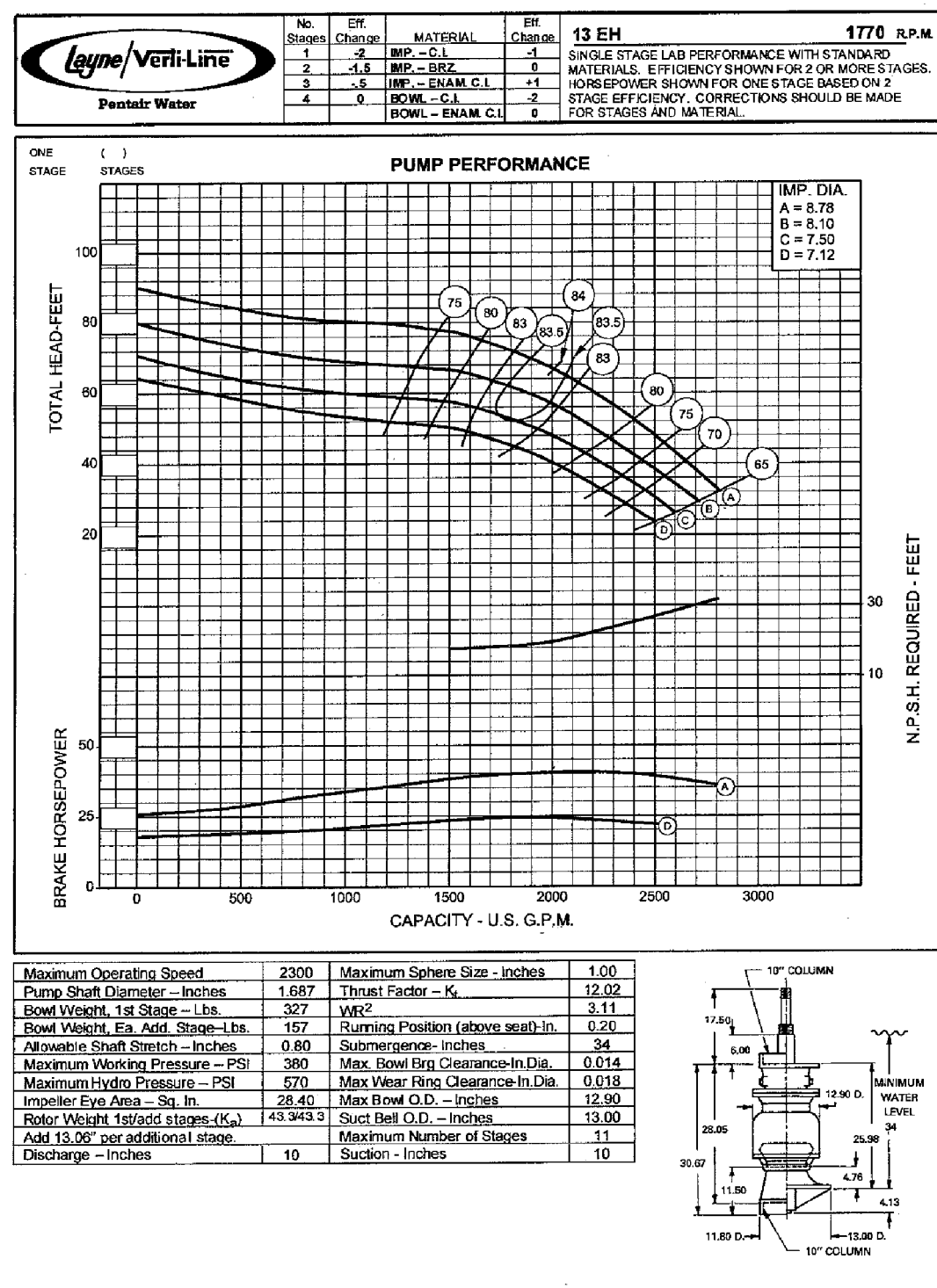
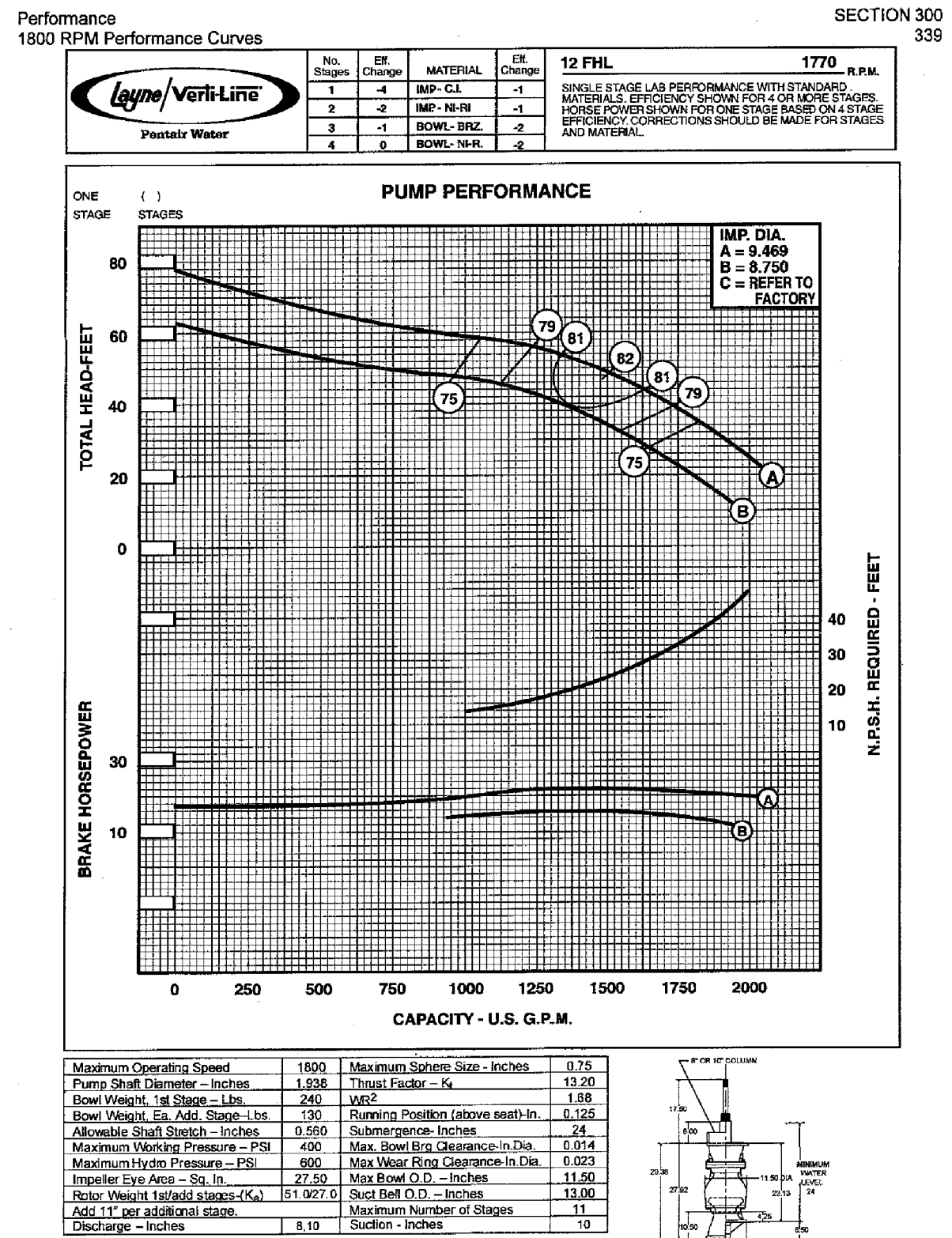
PUMP #2



- THE DESIGN OF THE FIELD FABRICATED OUTLETS FOR THIS DESIGN IS IN ACCORDANCE WITH ASME STANDARD A112.19.8-2007, SECTION 2.3.1.7, BASED UPON THE FOLLOWING CRITERIA:
- REQUIRE TOOLS TO OPEN - YES; EXISTING FRAME WILL BE DRILLED AND TAPPED TO ALIGN WITH THE SCREW HOLES ON THE GRATES. THE INSERTS WILL BE THREADED AND BE THE MANUFACTURER'S HARDWARE.
 - THE PADDOCK SUBMERGED SUCTION OUTLET COVERS SPECIFIED WERE NSF TESTED AND APPROVED UNDER THE ASME A112.19.8A-2008 AND FEBRUARY 16, 2009. THEY PASSED ALL TESTS FOR ULTRA-VIOLET, BODY ENTRAPMENT, VERTICAL LOAD, HORIZONTAL LOAD, EXCESS LOAD, SHEAR TEST, VACUUM TEST, PULL TEST AND FINGER TEST. THEY ARE APPROVED FOR INSTALLATION ON FIELD FABRICATED SUMPS AND ARE EXEMPT FROM THE HAIR TEST IN ACCORDANCE WITH SECTION 4.1.4 OF THE ASME A112 STANDARD. DOCUMENTATION AND APPROVAL OF THESE SAFETY COVERS IS LISTED ON THE NSF WEBSITE AND HAS BEEN SUPPLIED TO THE DEPARTMENT BY THE MANUFACTURER.
 - THE SUMPS ARE TO BE MADE COMPLIANT TO THE DIMENSIONS FOR CONSTRUCTION CONFORM TO ASME STANDARD A112, SECTION 2.3.4, FIGURE 2 BY INSTALLING AVRO DEVICE OR BLANK-OFF PLATES ON THE SUCTION OUTLET PIPES. AVRO WILL PROVIDE 1.5 TIMES DISTANCE IN ALL CASES.
 - THE MAXIMUM FLOW THRU EACH 24"x24" COVER IS 997 GPM. TOTAL CERTIFIED FLOW 7983.36 GPM
 - CERTIFIED FOR MULTIPLE DRAIN USE
 - ESTIMATED LIFE OF GRATES IS 20 YEARS
 - GRATE POSITION IS FLOOR MOUNTED

- THE DESIGN OF THE FIELD FABRICATED OUTLETS FOR THIS DESIGN IS IN ACCORDANCE WITH ASME STANDARD A112.19.8-2007, SECTION 2.3.1.7, BASED UPON THE FOLLOWING CRITERIA:
- REQUIRE TOOLS TO OPEN - YES; EXISTING FRAME WILL BE DRILLED AND TAPPED TO ALIGN WITH THE SCREW HOLES ON THE GRATES. THE INSERTS WILL BE THREADED AND BE THE MANUFACTURER'S HARDWARE.
 - THE PADDOCK SUBMERGED SUCTION OUTLET COVERS SPECIFIED WERE NSF TESTED AND APPROVED UNDER THE ASME A112.19.8A-2008 AND FEBRUARY 16, 2009. THEY PASSED ALL TESTS FOR ULTRA-VIOLET, BODY ENTRAPMENT, VERTICAL LOAD, HORIZONTAL LOAD, EXCESS LOAD, SHEAR TEST, VACUUM TEST, PULL TEST AND FINGER TEST. THEY ARE APPROVED FOR INSTALLATION ON FIELD FABRICATED SUMPS AND ARE EXEMPT FROM THE HAIR TEST IN ACCORDANCE WITH SECTION 4.1.4 OF THE ASME A112 STANDARD. DOCUMENTATION AND APPROVAL OF THESE SAFETY COVERS IS LISTED ON THE NSF WEBSITE AND HAS BEEN SUPPLIED TO THE DEPARTMENT BY THE MANUFACTURER.
 - THE SUMPS ARE TO BE MADE COMPLIANT TO THE DIMENSIONS FOR CONSTRUCTION CONFORM TO ASME STANDARD A112, SECTION 2.3.4, FIGURE 2 BY INSTALLING AVRO DEVICE OR BLANK-OFF PLATES ON THE SUCTION OUTLET PIPES. AVRO WILL PROVIDE 1.5 TIMES DISTANCE IN ALL CASES.
 - THE MAXIMUM FLOW THRU EACH 24"x24" COVER IS 997 GPM. TOTAL CERTIFIED FLOW 5987.52 GPM
 - CERTIFIED FOR MULTIPLE DRAIN USE
 - ESTIMATED LIFE OF GRATES IS 20 YEARS
 - GRATE POSITION IS FLOOR MOUNTED

- THE DESIGN OF THE FIELD FABRICATED OUTLETS FOR THIS DESIGN IS IN ACCORDANCE WITH ASME STANDARD A112.19.8-2007, SECTION 2.3.1.7, BASED UPON THE FOLLOWING CRITERIA:
- REQUIRE TOOLS TO OPEN - YES; EXISTING FRAME WILL BE DRILLED AND TAPPED TO ALIGN WITH THE SCREW HOLES ON THE GRATES. THE INSERTS WILL BE THREADED AND BE THE MANUFACTURER'S HARDWARE.
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 - THE SUMPS ARE TO BE MADE COMPLIANT TO THE DIMENSIONS FOR CONSTRUCTION CONFORM TO ASME STANDARD A112, SECTION 2.3.4, FIGURE 2 BY INSTALLING AVRO DEVICE OR BLANK-OFF PLATES ON THE SUCTION OUTLET PIPES. AVRO WILL PROVIDE 1.5 TIMES DISTANCE IN ALL CASES.
 - THE MAXIMUM FLOW THRU EACH 24"x24" COVER IS 997 GPM. TOTAL CERTIFIED FLOW 9979.20 GPM
 - CERTIFIED FOR MULTIPLE DRAIN USE
 - ESTIMATED LIFE OF GRATES IS 20 YEARS
 - GRATE POSITION IS FLOOR MOUNTED



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