

City of Kirkland Variance Criteria

1. How would the Variance not be materially detrimental to the property or improvements in the area of the subject property or to the City in part or as a whole?

This project consists of replacement of existing components of Grinder Pump Station 4 in order to maintain the station's function and restore its operability to its original condition. The project also aims to bring the station into compliance with electrical and fire code requirements that were enacted after the original construction of the station in 1979. Most of the components to this project will simply replace equipment that is failing and needs replacement to maintain function of the station, while the addition of the valve box will help to prevent accelerated deterioration of valves and piping in the future and improve the ease of operations. The proposed improvements to the station are essential to the transmission of sewer flows from the served area and will not cause substantial adverse effects to shoreline resources or environment. For these reasons this project presents no material detriment to the property or to the City. However, failure to maintain and upgrade the equipment could lead to sewer backups, which could cause environmental damage and public health issues.

2. How is the Variance necessary because of special circumstances regarding the size, shape, topography, or location of the subject property; or the location of a pre-existing improvement on the subject property that conformed to the Zoning Code in effect when the improvement was constructed?

Due to the topography of the area, conveying sewer flows from the homes in the neighborhood by gravity is not feasible. All of the pre-existing side sewers from the homes served by this station lead to the existing wet well by gravity, and any effort to re-route these side sewers in order to relocate the station outside of the stream buffer is also not feasible due to limitations of topography and would still require a shoreline variance. Even if changing the location of this station was feasible, any construction effort to do so would cause significant impacts to the shoreline, stream, and property owners, and would not be in the best interest of the City or residents. Variance for this project is necessary in order for the Northshore Utility District to continue providing sanitary sewer service to the area.

3. How would the Variance not constitute a grant of special privilege to the subject property which is inconsistent with the general rights that this Code allows to other property in the same area and zone as the subject property?

Variance for this project would not constitute a grant of special privilege because the project aims to be of sole benefit to the public in the manner of providing repair and maintenance necessary for the continued operation of an existing grinder pump station that is essential for the Northshore Utility District to continue to provide transmission of sewer flows from the served area. The unique nature of this project, including the essential service it provides to the public along with the lack of feasible alternatives, precludes this project from constituting a grant of special privileges inconsistent with the general rights that this Code allows to other property in the same area and zone.

NORTHSHORE UTILITY DISTRICT

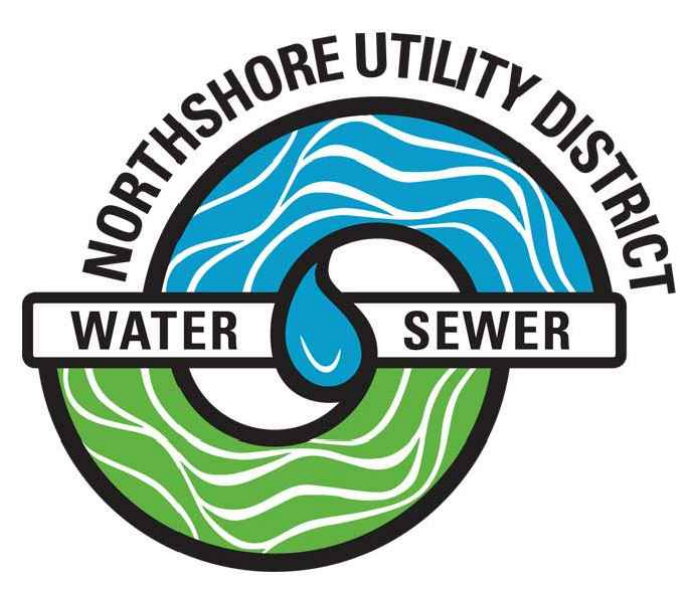
King County, Washington

CONTRACT 2020-XX

GRINDER PUMP STATIONS 1-4 REPLACEMENT

NOVEMBER 2021

PERMIT SET



MATT BREYSSE

D. BRUCE GARDINER

TRUDY C. ROLLA

THOMAS D. MORTIMER

DONALD A. ELLIS

ALAN G. NELSON

President of the Board

Secretary of the Board

Commissioner

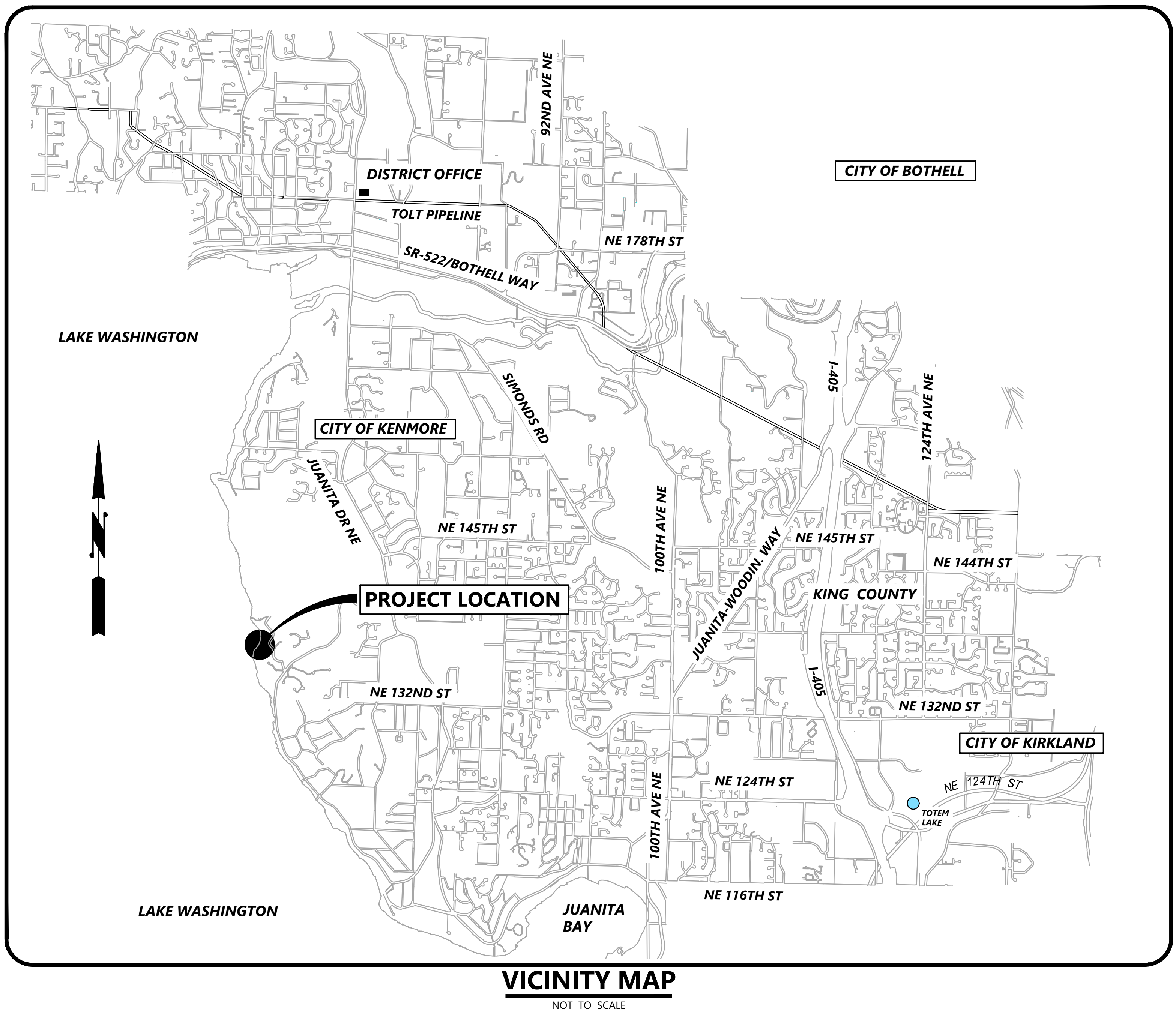
Commissioner

Commissioner

General Manager

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20	GENERAL DETAILS



VICINITY MAP
NOT TO SCALE

C2003
SHEET
1 OF 20

LEGEND

EXISTING	PROPOSED	DESCRIPTION
		PROPERTY LINE
		RIGHT OF WAY LINE
		EASEMENT
		TEMPORARY CONSTRUCTION EASEMENT
		DITCH CENTERLINE
		SIDE SLOPE
		WATER LINE
		SANITARY SEWER LINE
		SEWER FORCE MAIN
		STORM DRAIN LINE
		STORM DRAIN CULVERT
		SWALE OR DITCH
		GAS LINE
		UNDERGROUND POWER LINE
		OVERHEAD POWER LINE
		TELEPHONE LINE
		CABLE LINE
		FIBER OPTIC LINE
		WIRE FENCE
		WOOD FENCE
		CHAIN LINK FENCE
		WATER METER
		FIRE HYDRANT
		WATER VALVE
		BLOW OFF ASSEMBLY
		CLEAN OUT
		SANITARY MANHOLE
		STORM DRAIN MANHOLE
		STORM DRAIN CATCH BASIN
		GAS VALVE
		POWER POLE
		GUY ANCHOR
		LIGHT POLE
		SIGNAL POLE
		ELECTRICAL VAULT
		ELECTRICAL HANDHOLE
		COMMUNICATIONS VAULT
		TELEPHONE HANDHOLE
		SIGN
		MONUMENT
		ROCKERY/ROCK WALL
		MAIL BOX(ES)
		CONIFER TREE
		DECORATIVE TREE
		DECIDUOUS TREE
		SHRUB
		RETAINING WALL
		CEMENT CONCRETE PAVEMENT
		CEMENT CONCRETE CURB, GUTTER
		ASPHALT CONCRETE PAVEMENT
		SAND
		GRAVEL
		GRASS
		FILTER FABRIC FENCE
		PROPERTY ADDRESS

GENERAL NOTES:

- ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS SPECIFIED IN THE CURRENT NORTHSHORE UTILITY DISTRICT STANDARD SPECIFICATIONS AND STANDARD DETAILS.
- THE APPROXIMATE LOCATIONS OF EXISTING UTILITIES ARE SHOWN ON THE PLANS FOR CONVENIENCE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF UTILITY LOCATIONS SHOWN, FOR THE PROTECTION AND REPAIR OF DAMAGED UTILITIES AND FOR THE DISCOVERY OF POSSIBLE ADDITIONAL UTILITIES NOT SHOWN ON THE PLANS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO HAVE LOCATED, BY THE APPROPRIATE UTILITY DISTRICTS OR COMPANIES, ALL UNDERGROUND UTILITIES PRIOR TO BEGINNING CONSTRUCTION. FOR UTILITY LOCATES IN KING COUNTY, CALL 1-800-424-5555 PRIOR TO DIGGING.
- A PRE-CONSTRUCTION CONFERENCE WILL BE HELD AT THE DISTRICT OFFICE PRIOR TO START OF CONSTRUCTION.
- THE CONTRACTOR SHALL NOTIFY NORTHSHORE UTILITY DISTRICT A MINIMUM OF FIVE (5) DAYS IN ADVANCE OF BEGINNING CONSTRUCTION. CONSTRUCTION SHALL NOT BEGIN WITHOUT PRIOR WRITTEN NOTICE TO PROCEED BY THE DISTRICT.
- THE CONTRACTOR SHALL NOT OPERATE ANY VALVES OR MAKE ANY CONNECTIONS TO THE EXISTING WATER SYSTEM WITHOUT PRIOR APPROVAL FROM THE DISTRICT.

SURVEY CONTROL DATA

HORIZONTAL DATUM:

WASHINGTON STATE COORDINATE SYSTEM, NORTH ZONE NAD83(91), US FEET UTILIZING RTK GPS FIELD PROCEDURES

VERTICAL DATUM: NAVD88, US FEET AS PRESCRIBED BY NORTHSHORE UTILITY DISTRICT.

TOPOGRAPHIC MAPPING:

THE MAP SHOWN HEREON IS THE RESULT OF A TOPOGRAPHIC SURVEY BY DUANE HARTMAN & ASSOCIATES, INC. (DHA) COMPLETED ON JANUARY 20, 2010 AND SUPLEMENTED BY SURVEY PERFORMED BY GRAY & OSBORNE INC. (G&O) ON AUGUST 6, 2020. DHA ASSUMES NO LIABILITY, BEYOND SAID DATE, FOR ANY FUTURE SURFACE FEATURE MODIFICATIONS OR CONSTRUCTION ACTIVITIES THAT MAY OCCUR WITHIN OR ADJOINING THE PERIMETER OF THIS SURVEY. CONTACT DHA (425) 483-5355 FOR SITE UPDATES AND VERIFICATIONS.

CONTOUR INTERVAL: ONE FOOT (1') CONTOURS

BENCHMARKS:

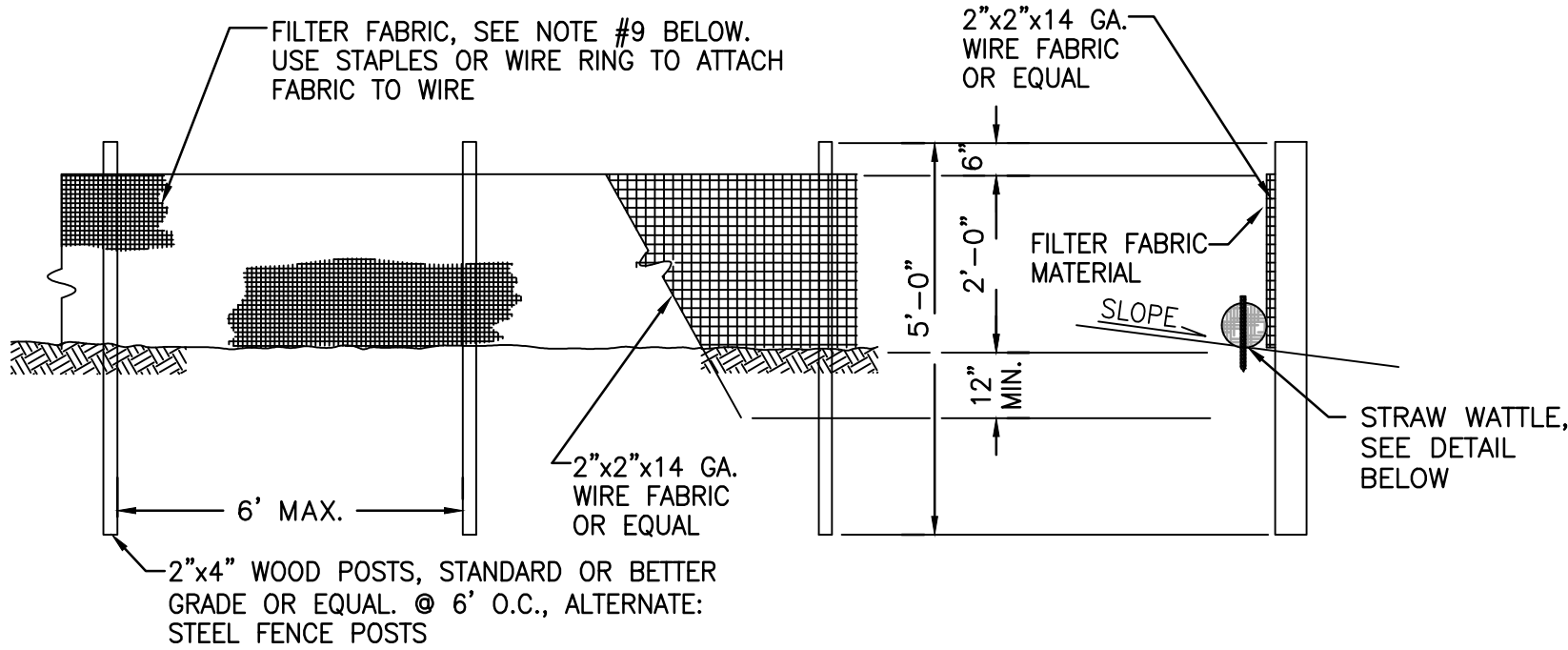
POINT TABLE				
POINT	NORTHING	EASTING	ELEV.	DESCRIPTION
120	267491.59	1289078.46	20.20	SSLT. "" TALK TO HOMEOWNER BEFORE USING POINT AGAIN"" JUST TACK ON DOCK. 3.4' SE OF WLY DOCK EDGE. 4.7' W-SW OF ONLY LIGHT IN NE-SW MID POINT ON ELY SIDE. 11.3' NELY OF SWLY END CTR DOCK. TACK IS IN THE 6TH PLANK FROM WLY SIDE & ELY SIDE(CTR). 0.03 ELY FROM WLY EDGE OF CTR PLANK.
300	267243.04	1289053.59	19.31	SFR. 5/8" REBAR NO CAP. 0.25' DOWN IN SAND. NELY QUAD BEACH. 3.5' W-NW OF EDGE GRASS. ~7.25' S-SW OF ANGLE POINT DOCK AND GRASS. ~10' S OF SLIDING SIDE DOOR TO BOAT HOUSE. 10.6' S-SW OF SE BOAT HSE COR.
301	267043.25	1288946.21	19.43	SFR. 5/8" REBAR WIRED CAP "DHA CONT" IN WLY EDGE GRASS PROP. N OF GRINDER #4. 1.2' E OF W EDGE GRASS @ BEACH. ~7.3' N-NW OF NLY END BULK HEAD(UNDER GRASS). ~19' W-NW OF CENTER FIRE PIT. ~28' W OF CL W FACE CABANA.
355	267400.73	1289136.83	21.71	SFR. 5/8" REBAR RED CAP "DHA CONT" 0.2' DOWN. 1.15' W OF W FACE WOOD RET WALL. ~3.1' S-SW OF NW COR RET WALL. ~15' NE OF NW COR DECK.
357	267755.62	1289135.01	19.53	SFR. 21.2' N15E OF CTR NLY DOCK LIGHT ON E SIDE(SHORE) OF DOCK IN BEACH.
370	266939.29	1288945.82	23.94	SFR. 5/8" REBAR WIRED CAP "DHA CONT" 0.1' DOWN IN GRASS. 1' N OF WOOD FENCE. ~4.9' SW OF SWLY BC. ~5.4' E-NE OF W END WOOD FENCE.

SURVEY SYMBOLS

EXISTING	PROPOSED	DESCRIPTION
		BENCH MARK
		IRON PIPE/REBAR

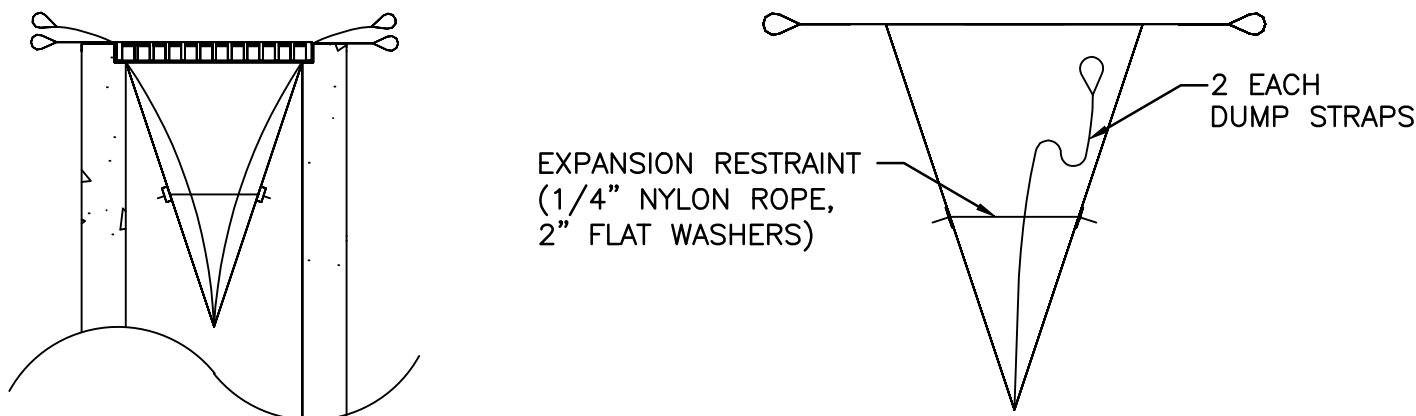
TEMPORARY EROSION AND SEDIMENTATION CONTROL NOTES

- THE TEMPORARY EROSION AND SEDIMENTATION CONTROL (TESC) FACILITIES SHALL BE IMPLEMENTED PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITIES, AND IN SUCH A MANNER AS TO ENSURE THAT SEDIMENT WATER DOES NOT ENTER THE DRAINAGE SYSTEM OR VIOLATE APPLICABLE WATER STANDARDS. MAINTENANCE, REPLACEMENT, AND UPGRADING OF THESE TESC FACILITIES IS THE RESPONSIBILITY OF THE CONTRACTOR UNTIL ALL CONSTRUCTION IS APPROVED.
- THE STORM DRAIN INLET PROTECTION DEVICE SHALL BE SILT SACK OR EQUAL. ALL CATCH BASINS WITHIN THE VICINITY OF THE CONSTRUCTION SHALL HAVE INLET PROTECTION MEASURES.
- CONTRACTOR SHALL MAINTAIN ALL EXISTING DRAINAGE CHANNELS, CULVERTS, SWALES AND STRUCTURES. WHENEVER EXISTING DRAINAGE FACILITIES ARE DISTURBED, THE CONTRACTOR SHALL PROVIDE SUITABLE MEANS FOR DIVERTING AND MAINTAINING ALL FLOWS DURING CONSTRUCTION IN THAT AREA AT ITS EXPENSE. AFTER CONSTRUCTION HAS BEEN COMPLETED, ALL DRAINAGE CHANNELS, CULVERTS, SWALES AND STRUCTURES DISTURBED SHALL BE RETURNED TO THEIR ORIGINAL CONDITIONS.
- THE TESC FACILITIES SHOWN ON THIS PLAN ARE THE MINIMUM REQUIREMENTS FOR ANTICIPATED SITE CONDITIONS. DURING THE CONSTRUCTION PERIOD, TESC FACILITIES SHALL BE MAINTAINED AND UPGRADED AS NECESSARY BY THE CONTRACTOR.
- CONTRACTOR SHALL INSPECT THE TESC FACILITIES AT THE END OF EACH WORKING DAY TO ASSURE ITSELF THAT THEY ARE IN GOOD CONDITIONS. IF TESC FACILITIES REQUIRE REPAIR/MAINTENANCE, IT SHALL BE PERFORMED PRIOR TO THE END OF THE WORKING DAY. ALL DISTURBED AREAS SHALL BE PROMPTLY AND THOROUGHLY STABILIZED AGAINST EROSION DURING PERIODS OF WET WEATHER WHEN WORK IS NOT BEING PERFORMED AT THE SITE.
- ALL UNSUITABLE OR SURPLUS EXCAVATED OR CLEARED MATERIAL SHALL BE REMOVED FROM THE SITE AND DISPOSED OF IN AN APPROVED, LEGAL FILL SITE. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO LOCATE ACCEPTABLE DISPOSAL SITES AND ASSURE THAT ALL SURPLUS MATERIAL IS DISPOSED OF IN SAME.
- CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTING ALL APPROPRIATE MEASURES NEEDED (STREET SWEEPERS, WATER TRUCKS, ETC.) TO KEEP STREETS AND ROADS USED AS HAUL ROUTES FOR EXPORT OR IMPORT OF MATERIAL CLEAN AND FREE FROM DEBRIS, MUD, ETC.. ADDITIONAL MEASURES MAY BE REQUIRED TO ENSURE THAT ALL PAVED AREAS ARE KEPT CLEAN FOR THE DURATION OF THE PROJECT.



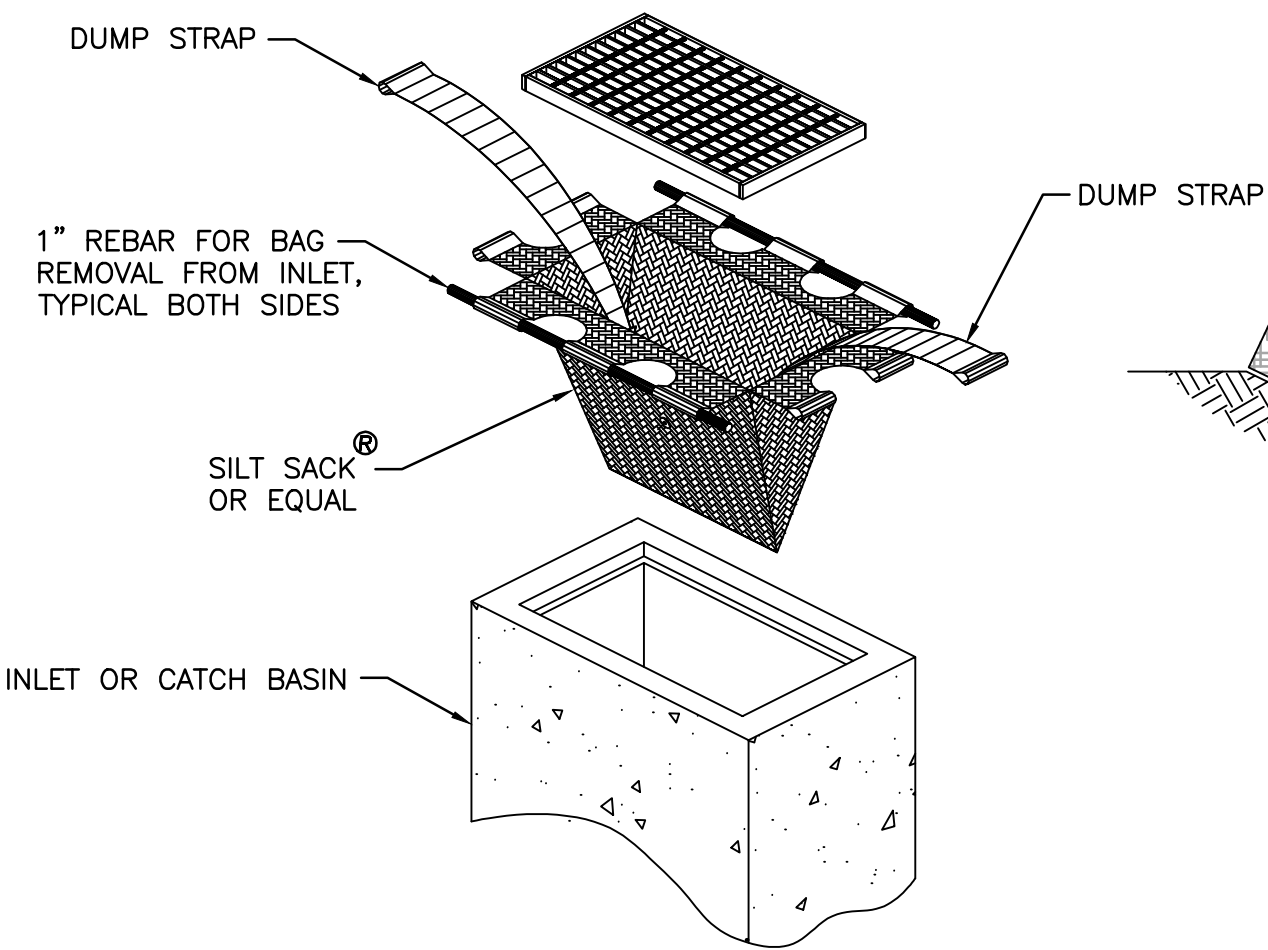
NOTES

- THE FILTER FABRIC SHALL BE PURCHASED IN A CONTINUOUS ROLL CUT TO THE LENGTH OF THE BARRIER TO AVOID USE OF JOINTS. WHEN JOINTS ARE NECESSARY, FILTER CLOTH SHALL BE SPICED TOGETHER ONLY AT A SUPPORT POST, WITH A MINIMUM 6-INCH OVERLAP AND BOTH ENDS SECURELY FASTENED TO THE POST.
- THE FILTER FABRIC FENCE SHALL BE INSTALLED TO FOLLOW THE CONTOURS (WHERE FEASIBLE). THE FENCE POSTS SHALL BE SPACED A MAXIMUM OF 6 FEET APART AND DRIVEN SECURELY INTO THE GROUND (MINIMUM OF 30 INCHES).
- WHEN STANDARD STRENGTH FILTER FABRIC IS USED, A WIRE MESH SUPPORT FENCE SHALL BE FASTENED SECURELY TO THE UPSLOPE SIDE OF THE POSTS USING HEAVY-DUTY WIRE STAPLES AT LEAST 1 INCH LONG, TIE WIRE OR HOG RINGS.
- THE STANDARD STRENGTH FILTER FABRIC SHALL BE STAPLED OR WIRED TO THE FENCE, AND 20 INCHES OF THE FABRIC SHALL BE EXTENDED ACROSS THE GROUND, UPSLOPE AND ADJACENT TO THE WOOD POST. THE FABRIC SHALL NOT EXTEND MORE THAN 30 INCHES ABOVE THE ORIGINAL GROUND SURFACE. FILTER FABRIC SHALL NOT BE STAPLED TO EXISTING TREES.
- WHEN EXTRA FILTER FABRIC AND CLOSER POST SPACING ARE USED, THE WIRE MESH SUPPORT FENCE MAY BE ELIMINATED. IN SUCH A CASE, THE FILTER FABRIC IS STAPLED OR WIRED DIRECTLY TO THE POSTS WITH ALL OTHER PROVISIONS OF STANDARD NOTE 3 APPLYING.
- FABRIC SHALL BE SECURED AT THE BASE BY PEA-ROCK FILLED SANDBAGS OR STRAW WATTLES PLACED END TO END.
- FILTER FABRIC FENCES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFUL PURPOSE, BUT NOT BEFORE THE UPSLOPE AREA HAS BEEN PERMANENTLY STABILIZED.
- FILTER FABRIC FENCES SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY.
- FILTER FABRIC SHALL BE PER CURRENT GEOTEXTILE FABRIC STANDARDS FOR SILT FENCE IN THE DEPARTMENT OF ECOLOGY STORMWATER MANAGEMENT MANUAL FOR WESTERN WASHINGTON.



INSTALLATION DETAIL

BAG DETAIL

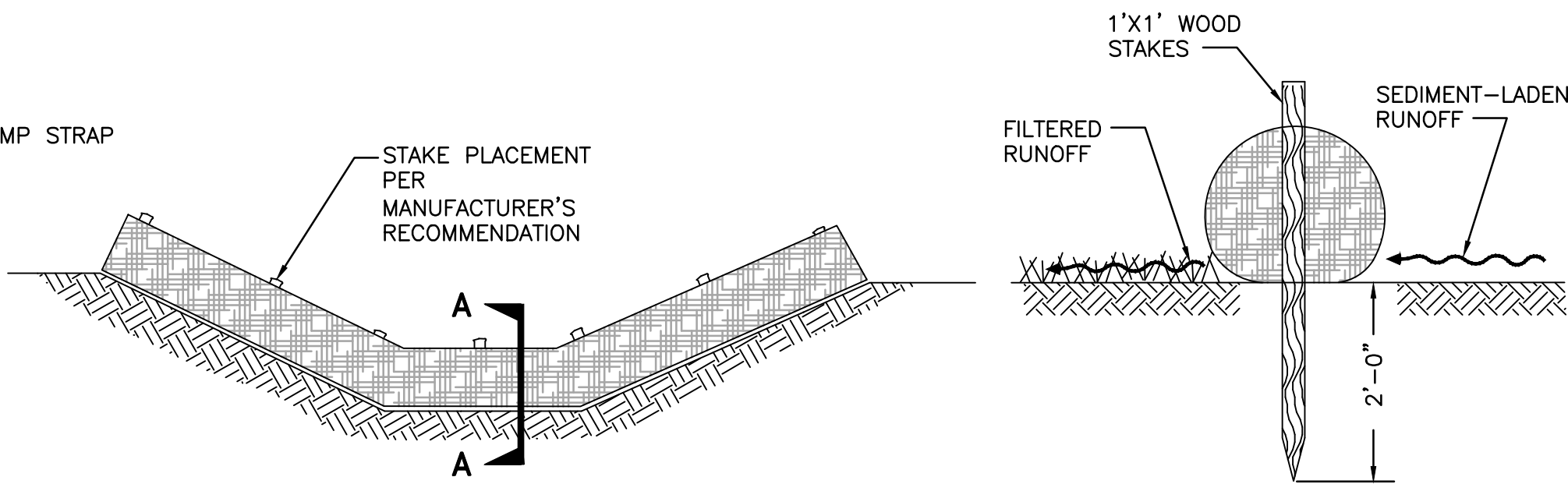


STORM DRAIN INLET PROTECTION

NOT TO SCALE

HIGH VISIBILITY FILTER FABRIC FENCE

NOT TO SCALE



PLACEMENT OF STRAW WATTLE

CROSS SECTION A-A

STRAW WATTLE DAM

NOT TO SCALE

NO	BY	APPD	REVISION	DATE
PERMIT SET				

WARNING
0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE



DESIGNED BY	HLT
DRAWN BY	HLT
CHECKED BY	EBD
APPROVAL	EBD
DATE	NOV 2021



NORTHSHORE UTILITY DISTRICT

6830 NE 185th St. P.O. Box 82489
Kenmore, WA 98028-2684 Kenmore, WA 98028-2684

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CONTRACT 2020-XX
GRINDER PUMP STATIONS 1-4 REPLACEMENT

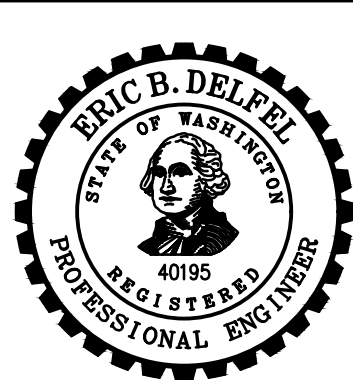
GENERAL NOTES, LEGEND, & TESC

BASE MAP H4

C2003

SHEET

2 OF 20



ABBREVIATIONS

AC	ASBESTOS CEMENT PIPE
ADJ	ADJUST
ALT	ALTERNATE
ALUM	ALUMINUM
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE
AP	ANGLE POINT
APPROX	APPROXIMATE
ASPH	ASPHALT
ASSY	ASSEMBLY
ASTM	AMERICAN SOCIETY OF TESTING AND MATERIALS
AVE	AVENUE
BF	BLIND FLANGE
BLDG	BUILDING
BLK	BLOCK
BO	BLOW OFF
BOP	BEGINNING OF PROJECT
BOT	BOTTOM OF
C	CONDUIT
CB	CATCH BASIN
CF	CUBIC FEET
CFS	CUBIC FEET PER SECOND
CI	CAST IRON
CL	CLASS
CLR	CLEARANCE
CMP	CORRUGATED METAL PIPE
CO	CLEANOUT
CONC	CONCRETE
CONN	CONNECTION
CONT	CONTINUED/CONTINUOUS
CPEP	CORRUGATED POLYETHYLENE PIPE
CPLG	COUPLING
CSBC	CRUSHED SURFACING BASE COURSE
CSTC	CRUSHED SURFACING TOP COURSE
CTR	CENTER
CY	CUBIC YARD
CL	CENTER LINE
D	DRAIN
DI	DUCTILE IRON
DIA	DIAMETER
DIM	DIMENSION
DOT	DEPARTMENT OF TRANSPORTATION
DWGS	DRAWING(S)
E	EAST
EA	EACH
EL	ELEVATION
ELEC	ELECTRICAL
EOA	EDGE OF ASPHALT
EOP	END OF PROJECT
EX	EXISTING
FIG	FIGURE
FIN	FINISHED
FL	FLANGE
FT	FEET
GA	GAUGE
GALV	GALVANIZED
GI	GALVANIZED IRON
GV	GATE VALVE
HDPE	HIGH DENSITY POLYETHYLENE PIPE
HGB	HOT DIP GALVANIZED
ID	INSIDE DIAMETER
IE	INVERT ELEVATION
IN	INCH
INV	INVERT
L	LENGTH
LB	POUND
LF	LINEAR FEET
MAX	MAXIMUM
MFR	MANUFACTURER
MH	MANHOLE
MIN	MINIMUM
MISC	MISCELLANEOUS
MJ	MECHANICAL JOINT
N	NORTH
NO	NUMBER
NTS	NOT TO SCALE
OC	ON CENTER
OD	OUTSIDE DIAMETER
OHWM	ORDINARY HIGH WATER MARK
PE	PLAIN END
PERF	PERFORATED
PP	POWER POLE
PV	PLUG VALVE
PVC	POLYVINYL CHLORIDE
PVMT	PAVEMENT
QTY	QUANTITY
R	RADIUS
R/W	RIGHT-OF-WAY
RED	REDUCER
REINF	REINFORCE
REQD	REQUIRED
RESTR	RESTRAINTS
RET	RETAINING
RFCA	RESTRAINED FLANGE COUPLING ADAPTER
S	SOUTH
SCH	SCHEDULE
SF	SQUARE FEET
SHT	SHEET
SIM	SIMILAR
SL	SLOPE
SPECS	SPECIFICATIONS
SQ	SQUARE
SS	STAINLESS STEEL
STA	STATION
STD	STANDARD
TB	THRUST BLOCK

TEL	TELEPHONE
TESC	TEMPORARY EROSION AND SEDIMENT CONTROL
THK	THICK
THRD	THREADED
THRU	THROUGH
TOS	TOP OF SLAB
TYP	TYPICAL
U.N.O.	UNLESS NOTED OTHERWISE
VERT	VERTICAL
W	WEST
W/	WITH
W/O	WITHOUT
WSDOT	WASHINGTON STATE DEPARTMENT OF TRANSPORTATION

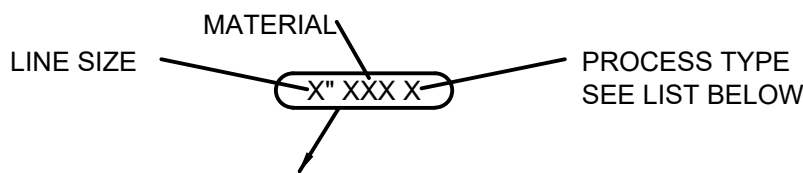
PIPING SYMBOLS

	EXISTING PIPE
	NEW PIPE
	COUPLING
	CHECK VALVE
	GATE VALVE
	REDUCER
	45° BEND
	90° BEND
	TEE
	TEE UP
	UNION, THRD
	THREADED JOINT

GENERAL MECHANICAL NOTES

- IN GENERAL, EXISTING STRUCTURES AND FACILITIES ARE NOTED AS "EXISTING" AND ARE SHOWN IN LIGHT LINE WEIGHTS OR AS SCREENED BACKGROUND. NEW CONSTRUCTION, STRUCTURES, FACILITIES, AND FEATURES ARE SHOWN IN DARK LINE WEIGHTS.
- MANY OF THE SYMBOLS SHOWN ON THIS LEGEND ARE USED ONLY WHERE THEY PROVIDE CLARITY AND ARE NOT NECESSARILY USED IN ALL APPLICATIONS. SOME CONTRACT DRAWINGS MAY HAVE ADDITIONAL LEGENDS APPLICABLE FOR THAT SPECIFIC DRAWING. SYMBOLS SHOWN ON SPECIFIC DRAWINGS GOVERN.
- THE CONTRACTOR SHALL VERIFY ALL PLANIMETRIC FEATURES AND DIMENSIONS PRIOR TO STARTING WORK AND SHALL NOTIFY THE ENGINEER OF DISCREPANCIES.
- ALL DIMENSIONS SHOWN ON THE CONTRACT DRAWINGS AND DESCRIBED IN THE SPECIFICATIONS REFER TO THE HORIZONTAL AND VERTICAL PROJECTED PLANES UNLESS OTHERWISE INDICATED.
- LOCATIONS OF EXISTING UTILITIES ARE BASED ON RECORD DRAWINGS, UTILITY OWNER LOCATES, AND/OR SITE INSPECTION. CONTRACTOR SHALL POT HOLE TO LOCATE BURIED UTILITIES PRIOR TO EXCAVATION.
- INSTALL FORCE MAIN PIPING LEVEL OR AT POSITIVE SLOPE IN DIRECTION OF FLOW UNLESS NOTED OTHERWISE.

PROCESS PIPING CODES



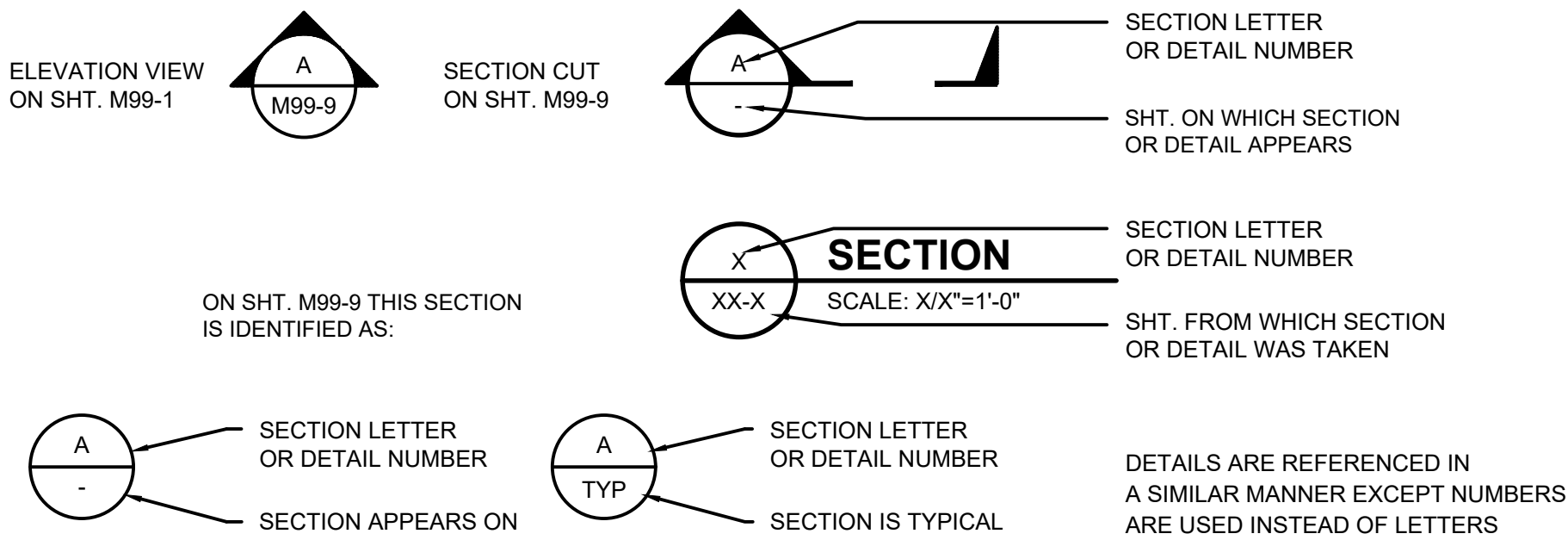
C	CONDUIT
FM	FORCE MAIN
S	SANITARY SEWER
V	VENT

PROPOSED PIPING MATERIAL AND JOINTING SCHEDULE

(EXCEPT WHERE SHOWN DIFFERENTLY ON THE DRAWINGS)

PROCESS PIPING CODE	EXPOSED, SUBMERGED	EXPOSED, NON-SUBMERGED	BURIED
FM	316 STAINLESS STEEL	SCH 80 PVC	SCH 80 PVC
C		SCH 80 PVC	SCH 80 PVC
V	-	316 STAINLESS STEEL	SCH 40 PVC

EXAMPLE OF SECTION NUMBERING SYSTEM AND PLAN/DRAWING TITLES



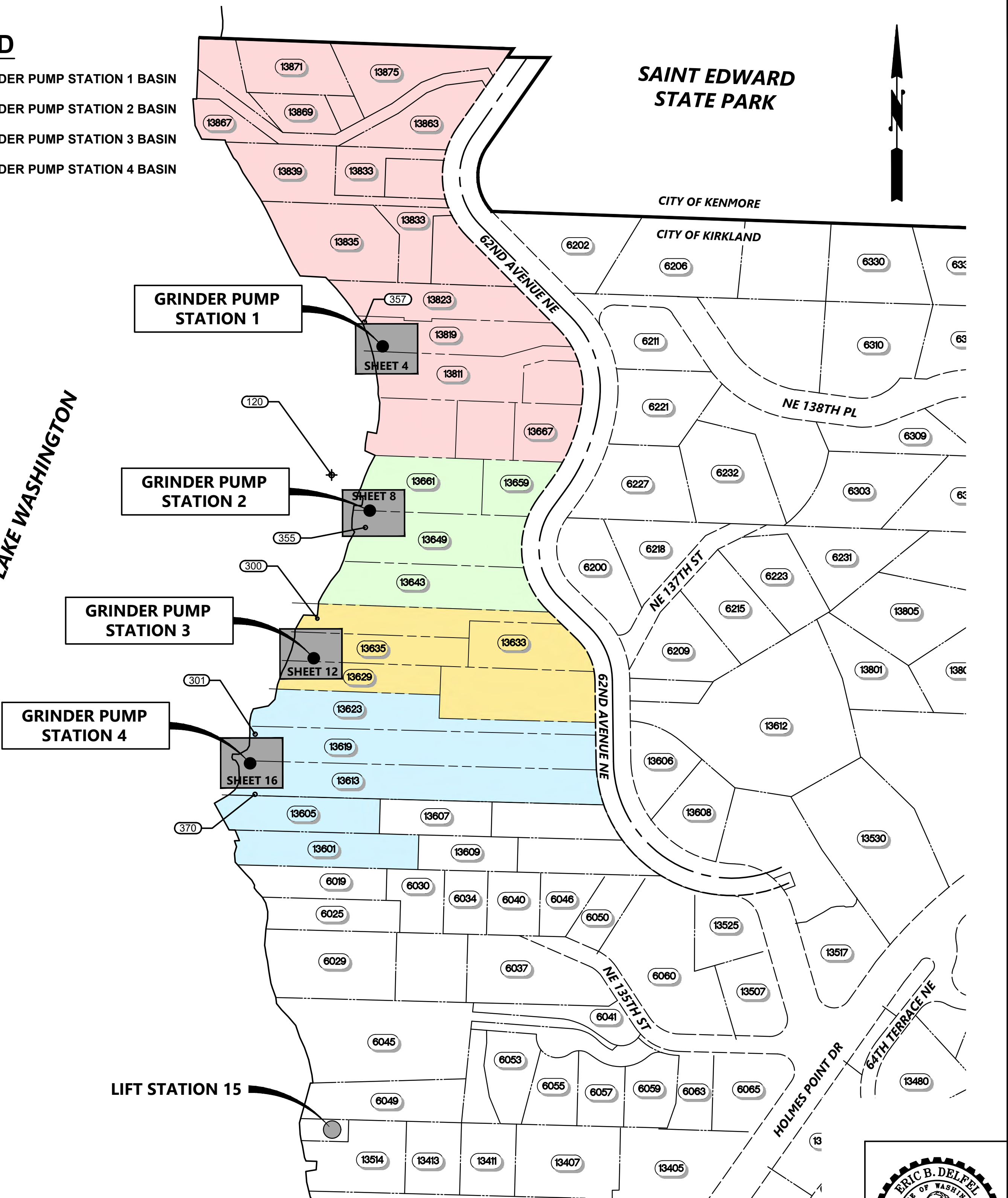
DRAWING TITLE

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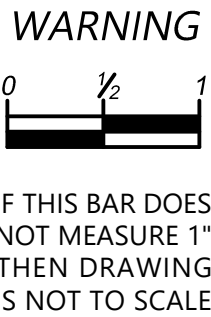
LEGEND

	GRINDER PUMP STATION 1 BASIN
	GRINDER PUMP STATION 2 BASIN
	GRINDER PUMP STATION 3 BASIN
	GRINDER PUMP STATION 4 BASIN

LAKE WASHINGTON



NO	BY	APPD	REVISION	DATE
PERMIT SET				



DESIGNED BY	HLT
DRAWN BY	HLT
CHECKED BY	EBD
APPROVAL	EBD
DATE	NOV 2021



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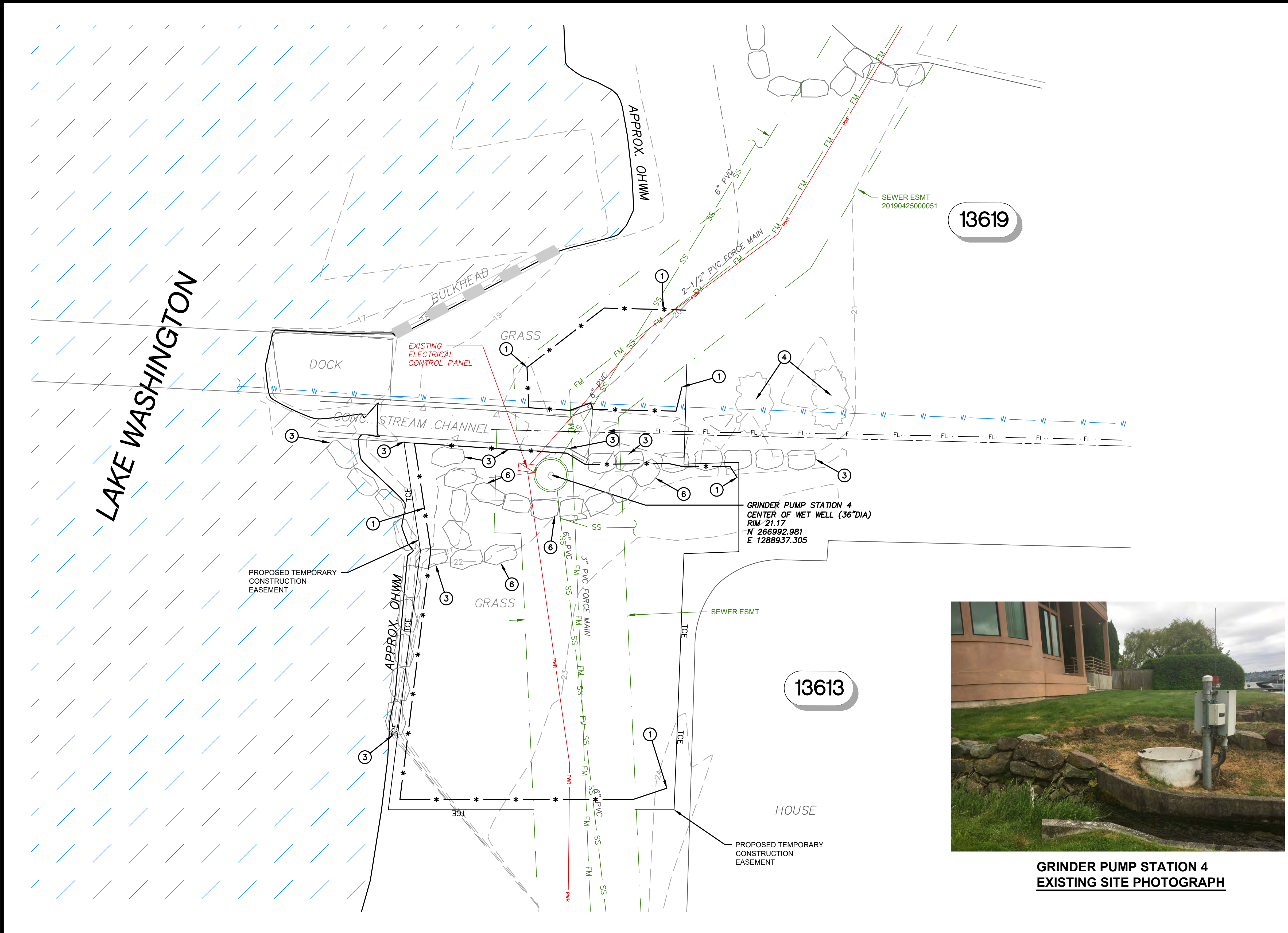
ABBREVIATIONS & AREA MAP

BASE MAP H4

C2003

SHEET

3 OF 20

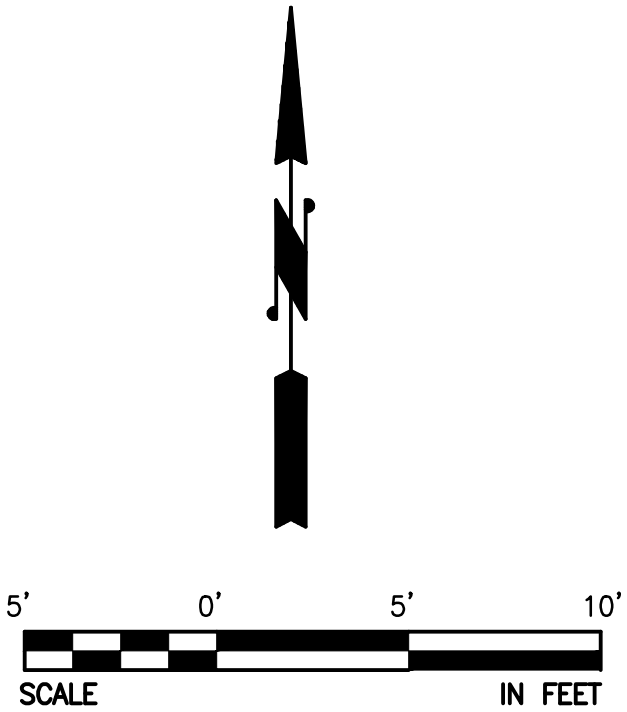


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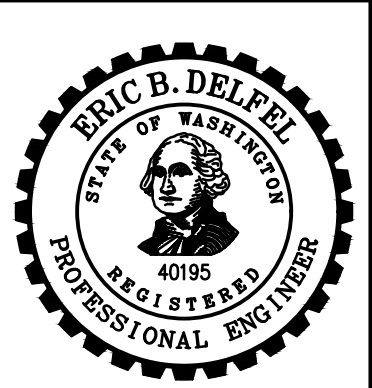
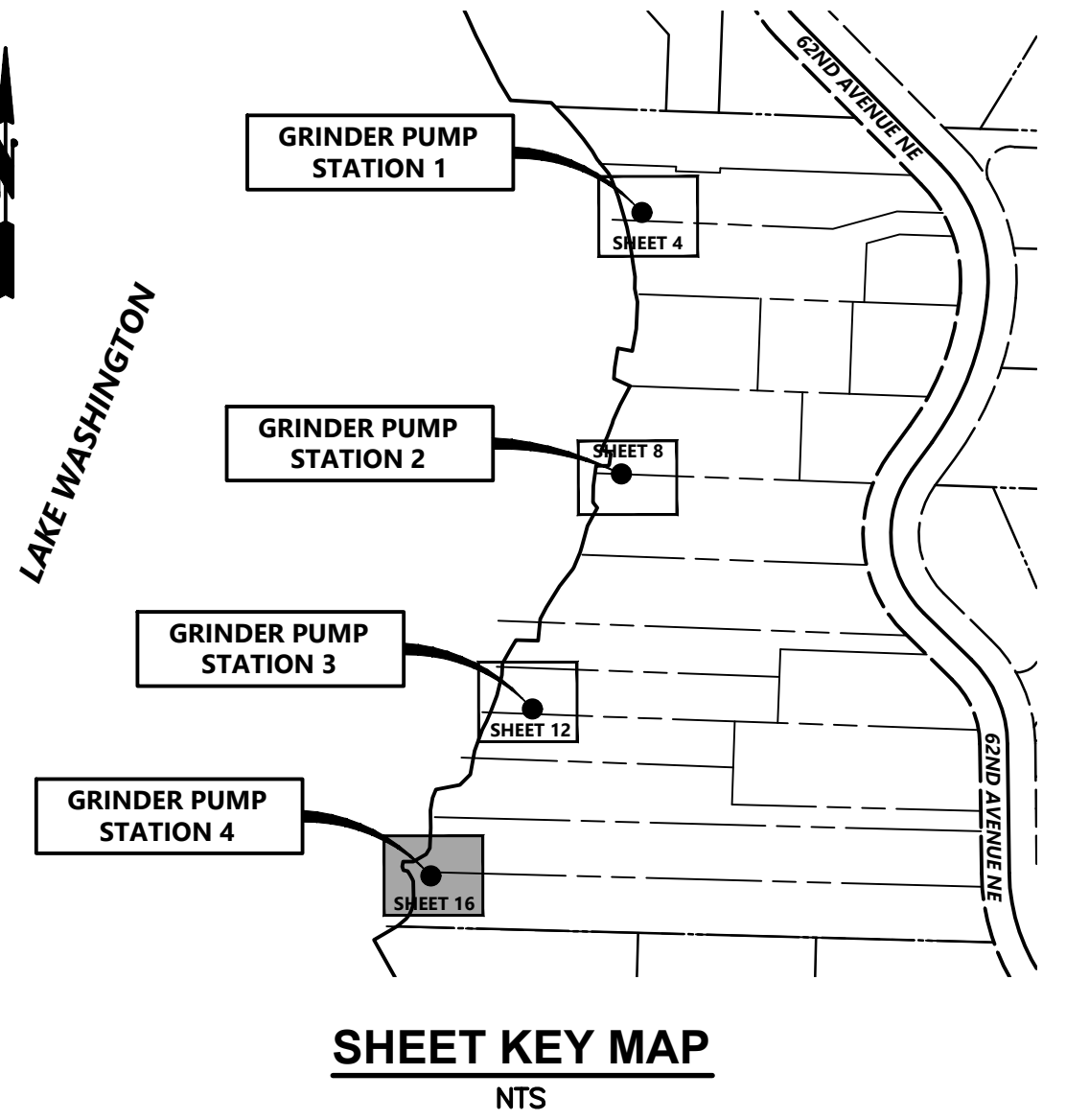


GRINDER PUMP STATION 4
EXISTING SITE PHOTOGRAPH



- NOTES**
1. LOCATION, SIZE, AND MATERIAL OF EXISTING UTILITIES SHOWN ARE APPROXIMATE. CONTRACTOR SHALL POTHOLE TO LOCATE EXISTING UTILITIES PRIOR TO EXCAVATION.
 2. ALL EXCAVATION SHALL BE PERFORMED BY HAND DIGGING.
 3. INSTALL TESC FACILITIES PER SHEET 2.
 4. SEE EROSION CONTROL NOTES SHEET 2.
 5. PROTECT ALL TREES AND HEDGES, UNLESS OTHERWISE NOTED ON PLANS.
 6. PRIOR TO COMMENCING CONSTRUCTION, THE CONTRACTOR SHALL COORDINATE WITH THE DISTRICT AND THE PROPERTY OWNERS REGARDING THE REMOVAL AND RESTORATION OF EXISTING LANDSCAPE FEATURES.

- CONSTRUCTION NOTES**
1. INSTALL FILTER FABRIC FENCE PER DETAIL, SHEET 2.
 2. PROTECT EXISTING FENCE.
 3. PROTECT EXISTING WALL/ROCKERY.
 4. PROTECT EXISTING TREE/SHRUB.
 5. REMOVE EXISTING TREE/SHRUB.
 6. REMOVE EXISTING ROCKERY.

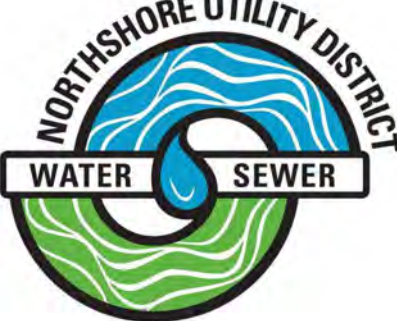


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WARNING
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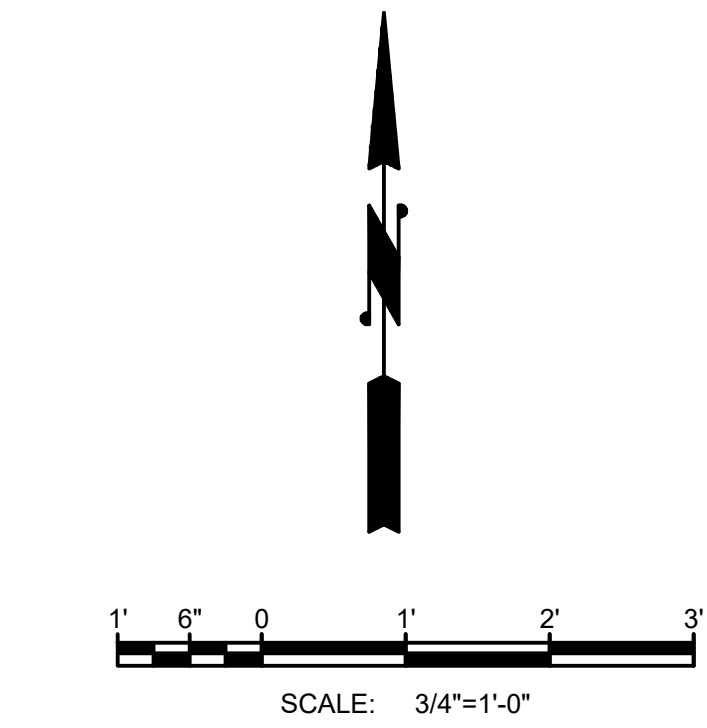
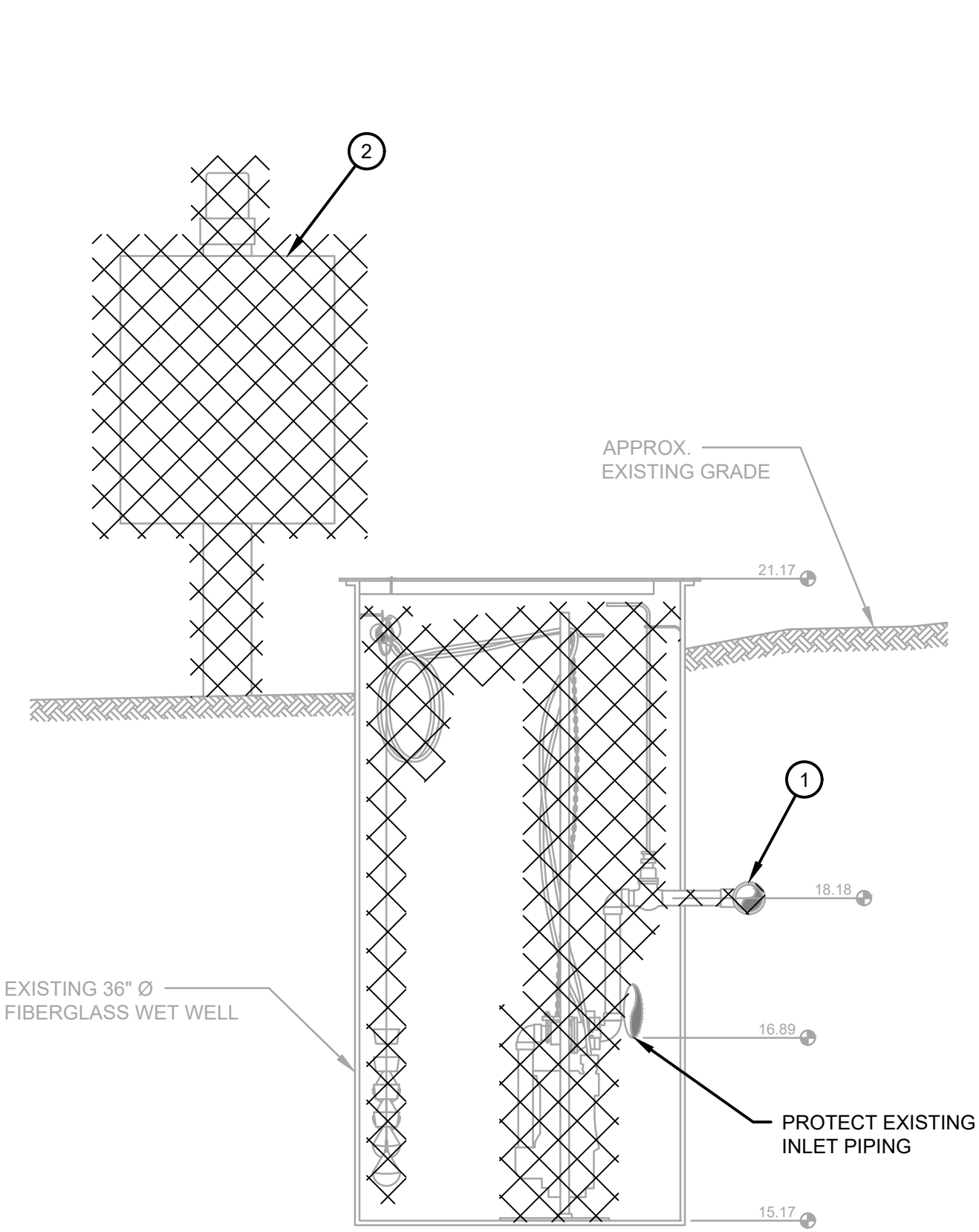
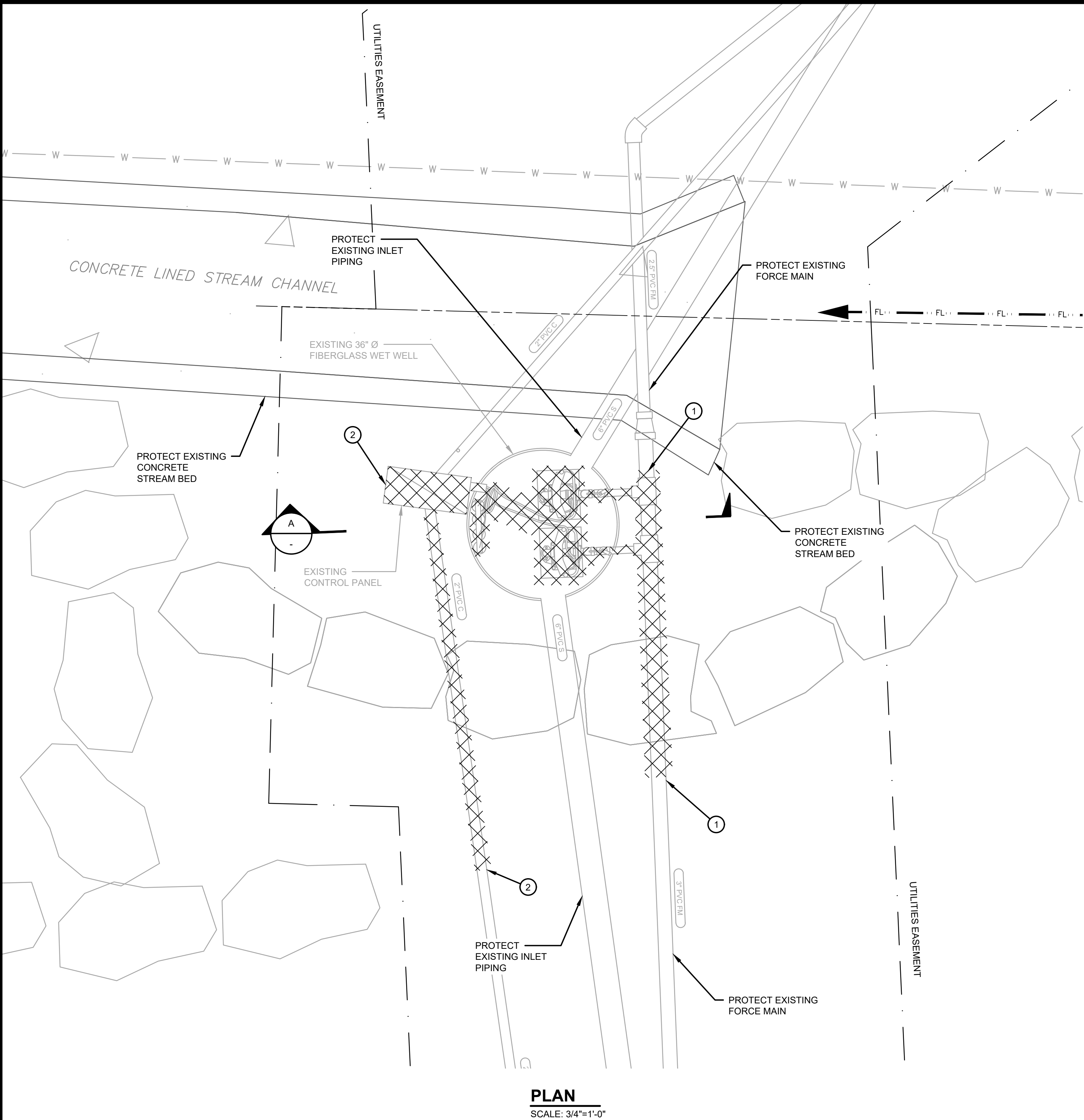
DESIGNED BY	HLT
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CONTRACT 2020-XX
GRINDER PUMP STATIONS 1-4 REPLACEMENT
**GRINDER PUMP STATION 4
EXISTING SITE & TESC PLAN**

BASE MAP H4
C2003
SHEET
16 OF 20



GENERAL NOTES

- 1. REMOVE AND WASTEHAUL PUMPS, FLOATS, CHANNEL SUPPORTS, RAILS, BRACKETS, CABLES, PIPING, AND FITTINGS.
- 2. PATCH HOLES IN WET WELL WITH FIBERGLASS FABRIC AND RESIN LAMINATE.
- 3. LOCATION, SIZE, AND MATERIAL OF EXISTING UTILITIES SHOWN IS APPROXIMATE. CONTRACTOR SHALL POT-HOLE TO LOCATE EXISTING UTILITIES PRIOR TO CONSTRUCTION.

DEMOLITION NOTES

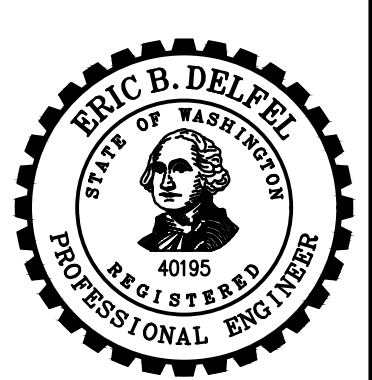
- ① DEMOLISH AND WASTEHAUL FORCE MAIN AS REQUIRED, SEE PROPOSED SITE PLAN SHEET 18.
- ② DEMOLISH AND WASTEHAUL EXISTING CONTROL PANEL, CONDUIT, AND ELECTRICAL EQUIPMENT.

LEGEND

Denotes items to be removed and wastehailed by the contractor



EXISTING WET WELL PHOTOGRAPH



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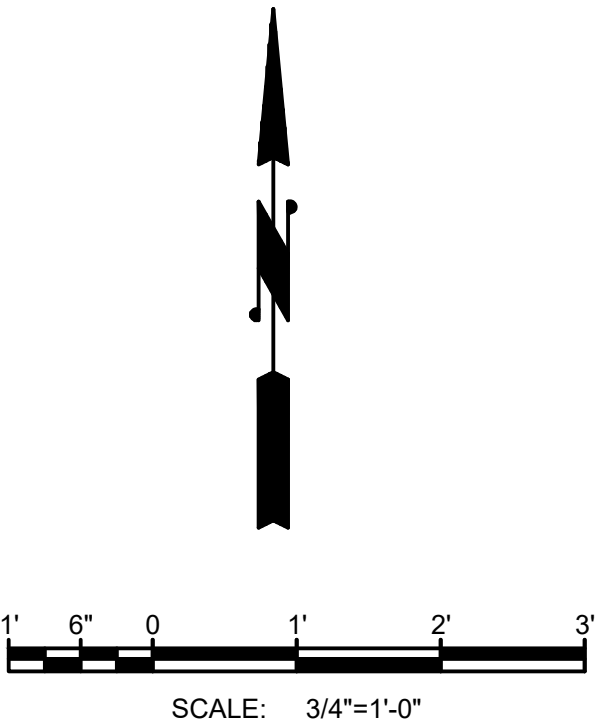
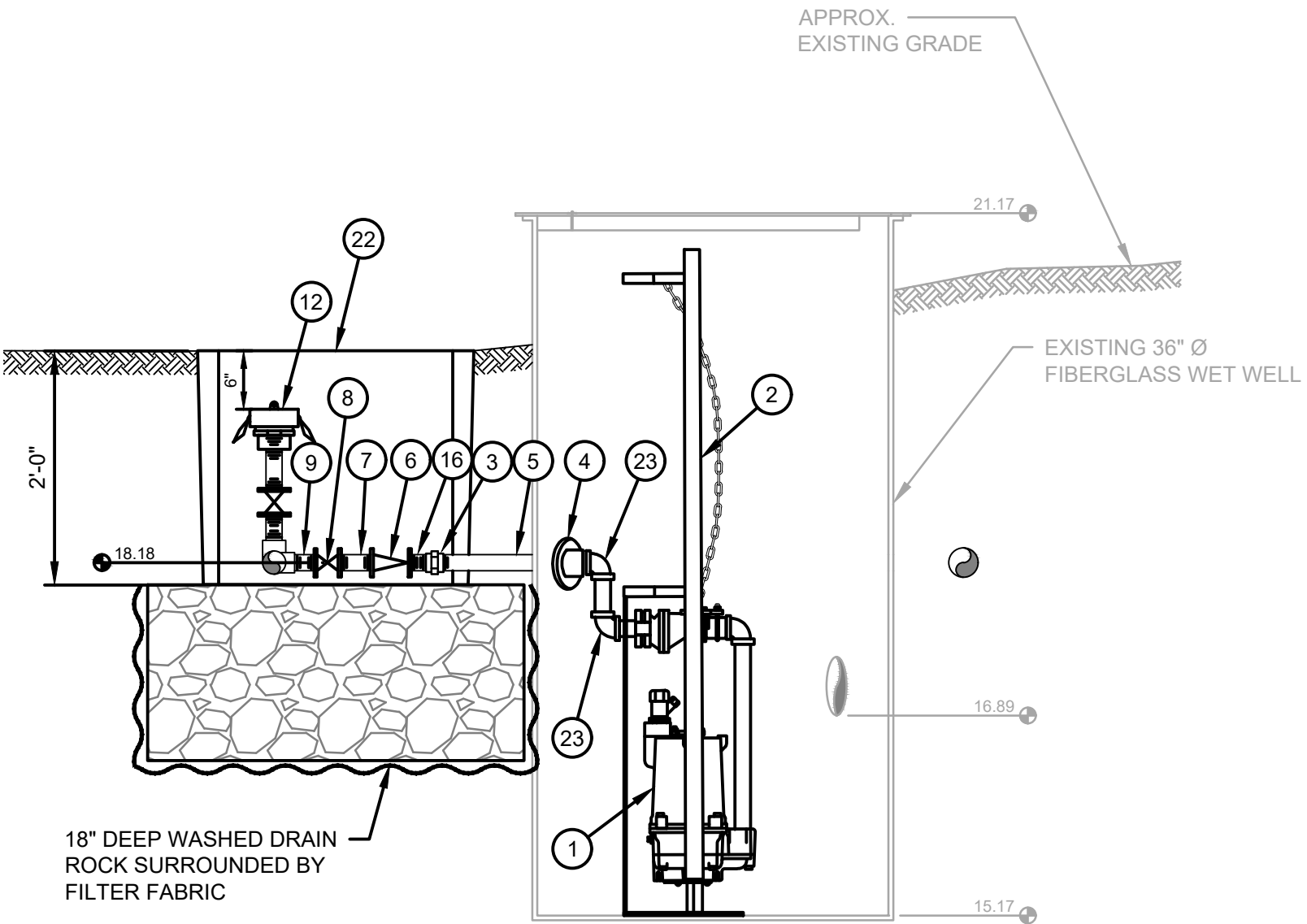
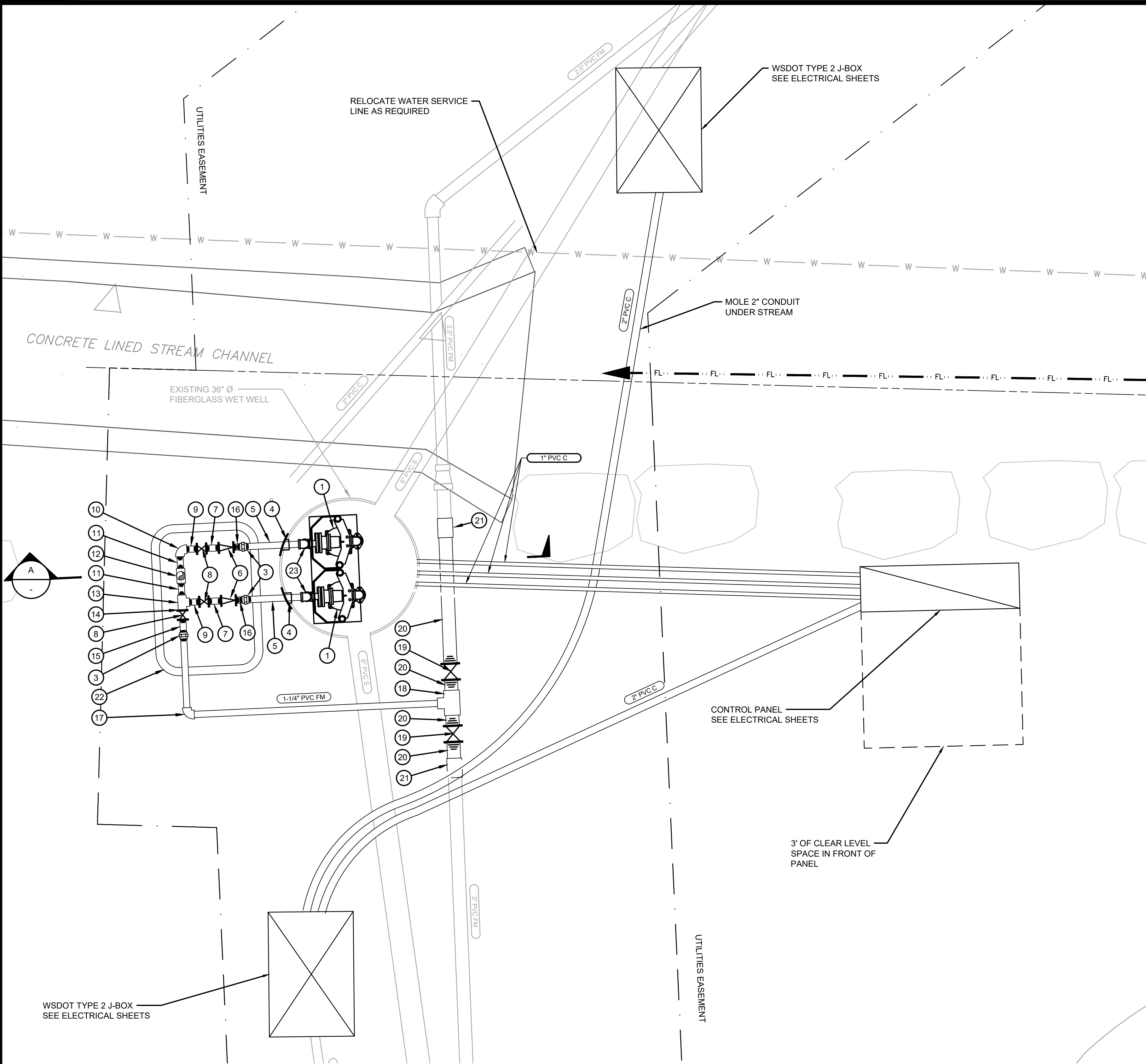
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CONTRACT 2020-XX
GRINDER PUMP STATIONS 1-4 REPLACEMENT
GRINDER PUMP STATION 4 DEMOLITION

BASE MAP H4
C2003
SHEET
17 OF 20



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

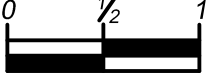
LEGEND:

- | | | | |
|----|--|----|---|
| 1 | HYDROMATIC HPGX 200 EXPLOSION-PROOF SUBMERSIBLE SEWAGE GRINDER PUMP WITH 4.56" DIAMETER IMPELLER, 1-1/4" SS DISCHARGE PIPING, AND 316 SS LIFTING CHAIN & CABLE | 19 | 3" BRONZE BALL VALVE, FITP X FITP WITH OPERATING NUT AND VALVE BOX PER DETAIL X, SHEET 20 |
| 2 | 1-1/2" SS PUMP GUIDE RAIL SYSTEM | 20 | 3" SCH. 80 PVC NIPPLE THREADED X PLAIN END (LENGTH TO FIT) |
| 3 | 1-1/4" SS UNION, THREADED | 21 | 3" COUPLING, SCH. 80 PVC SOCKET WELDED |
| 4 | 1-1/4" 316 SS DISCHARGE HUB | 22 | 24" X 36" VALVE BOX. DURALITE 2436 BY OLDCASTLE WITH SOLID T-COVER, OR EQUAL. |
| 5 | 1-1/4" SCH. 80 PVC THREADED 18" NIPPLE | 23 | 1-1/4" SS 90° BEND, THREADED |
| 6 | 1-1/4 BRONZE SWING CHECK VALVE | | |
| 7 | 1-1/4" SCH. 80 PVC THREADED 3" NIPPLE | | |
| 8 | 1-1/4" BRONZE BALL VALVE, FIPT X FIPT WITH LEVER | | |
| 9 | 1-1/4" SCH. 80 PVC THREADED 2" NIPPLE | | |
| 10 | 1-1/4" 90° BEND, SCH. 80 PVC THREADED | | |
| 11 | 1-1/4" SCH. 80 PVC THREADED NIPPLE (LENGTH TO FIT) | | |
| 12 | BYPASS-PUMPING CONNECTION. SEE DETAIL 2, SHEET 20 | | |
| 13 | 1-1/4" TEE, SCH 80 PVC THREADED | | |
| 14 | 1-1/4" SCH. 80 PVC CLOSE NIPPLE, THREADED | | |
| 15 | 1-1/4" SCH. 80 PVC NIPPLE, THREADED X PLAIN END (LENGTH TO FIT) | | |
| 16 | 1-1/4" SCH. 80 PVC THREADED 1-1/2" NIPPLE | | |
| 17 | 1-1/4" 90° BEND, SCH. 80 PVC SOCKET WELDED | | |
| 18 | 3" X 1-1/4" REDUCING TEE, SCH. 80 PVC SOCKET WELDED | | |

PLAN
SCALE: 3/4"=1'-0"

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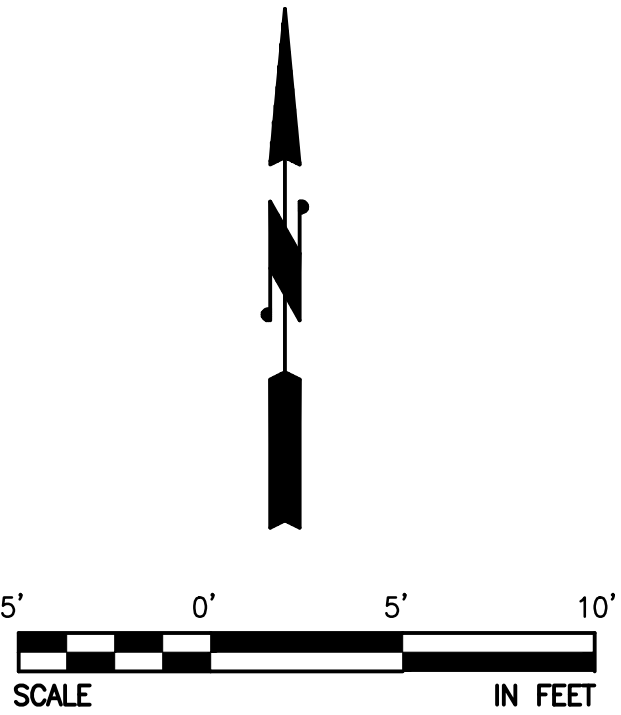
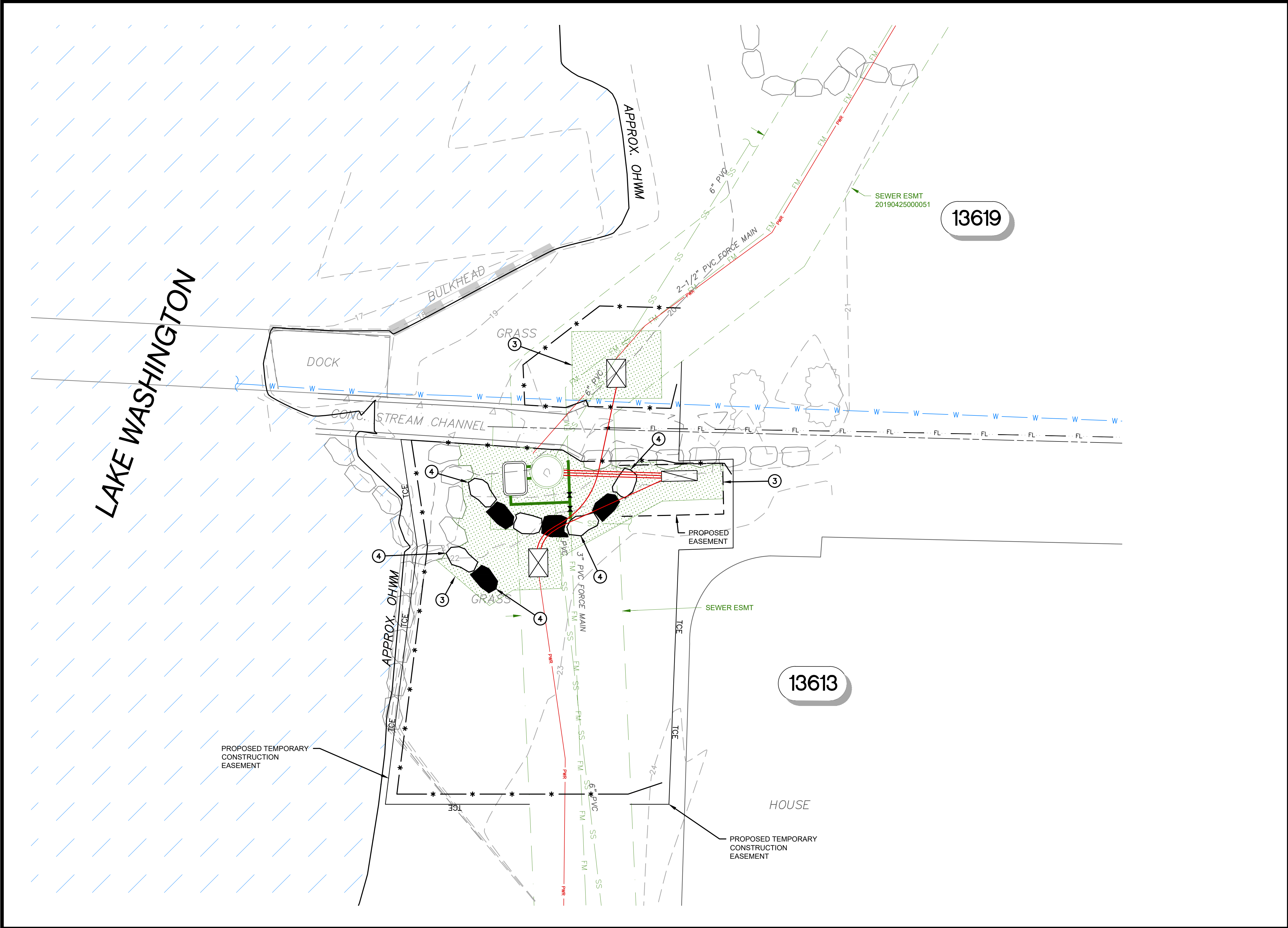


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CONTRACT 2020-XX
GRINDER PUMP STATIONS 1-4 REPLACEMENT
PROPOSED GRINDER PUMP STATION 4



BASE MAP H4
C2003
SHEET
18 OF 20



LEGEND



GENERAL NOTES

- 1. SEE SPECIFICATIONS FOR WORK AND PAYMENT INCLUDED IN GENERAL RESTORATION.
- 2. GRASS AREAS THAT ARE DAMAGED BY THE CONTRACTOR SHALL BE RESTORED WITH 4" OF TOPSOIL AND SOD PER THE SPECIFICATIONS.
- 3. PROTECT/RESTORE ALL LANDSCAPING AND SURFACE FEATURES TO EXISTING CONDITION OR BETTER.
- 4. GRADE SITE TO UNIFORM SLOPE AROUND VALVE VAULT.
- 5. PRIOR TO COMMENCING CONSTRUCTION, THE CONTRACTOR SHALL COORDINATE WITH THE DISTRICT AND THE PROPERTY OWNERS REGARDING THE REMOVAL AND RESTORATION OF EXISTING LANDSCAPE FEATURES.

RESTORATION NOTES

- 1 RESTORE BEACH SAND TO EXISTING CONDITION. ANY IMPORTED SAND SHALL MATCH THE COLOR AND GRADATION OF THE EXISTING SAND.
- 2 RESTORE WALL TO EXISTING CONDITION.
- 3 RESTORE EXISTING LANDSCAPING, TOPSOIL, AND SOD AS APPLICABLE TO PRE-CONSTRUCTION CONDITIONS, OR BETTER.
- 4 RESTORE ROCKERY TO EXISTING CONDITION.
- 5 RESTORE/REPLACE EXISTING SHRUB/BUSH TO EXISTING CONDITION.
- 6 RESTORE RIVER ROCK SURFACING TO EXISTING CONDITION.



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PERMIT SET				

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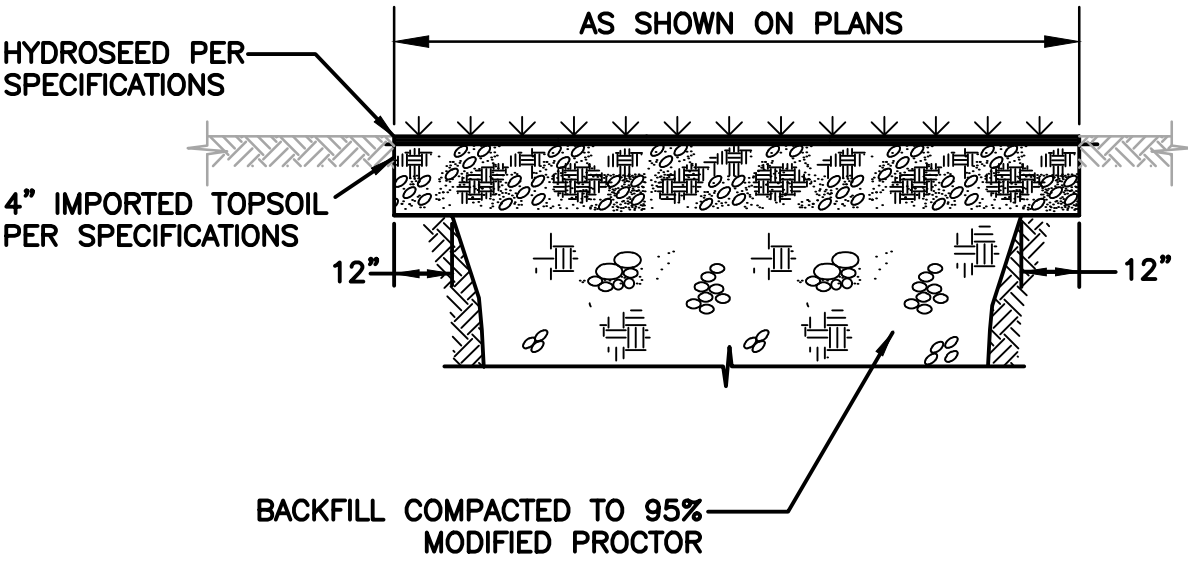
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DATE	NOV 2021



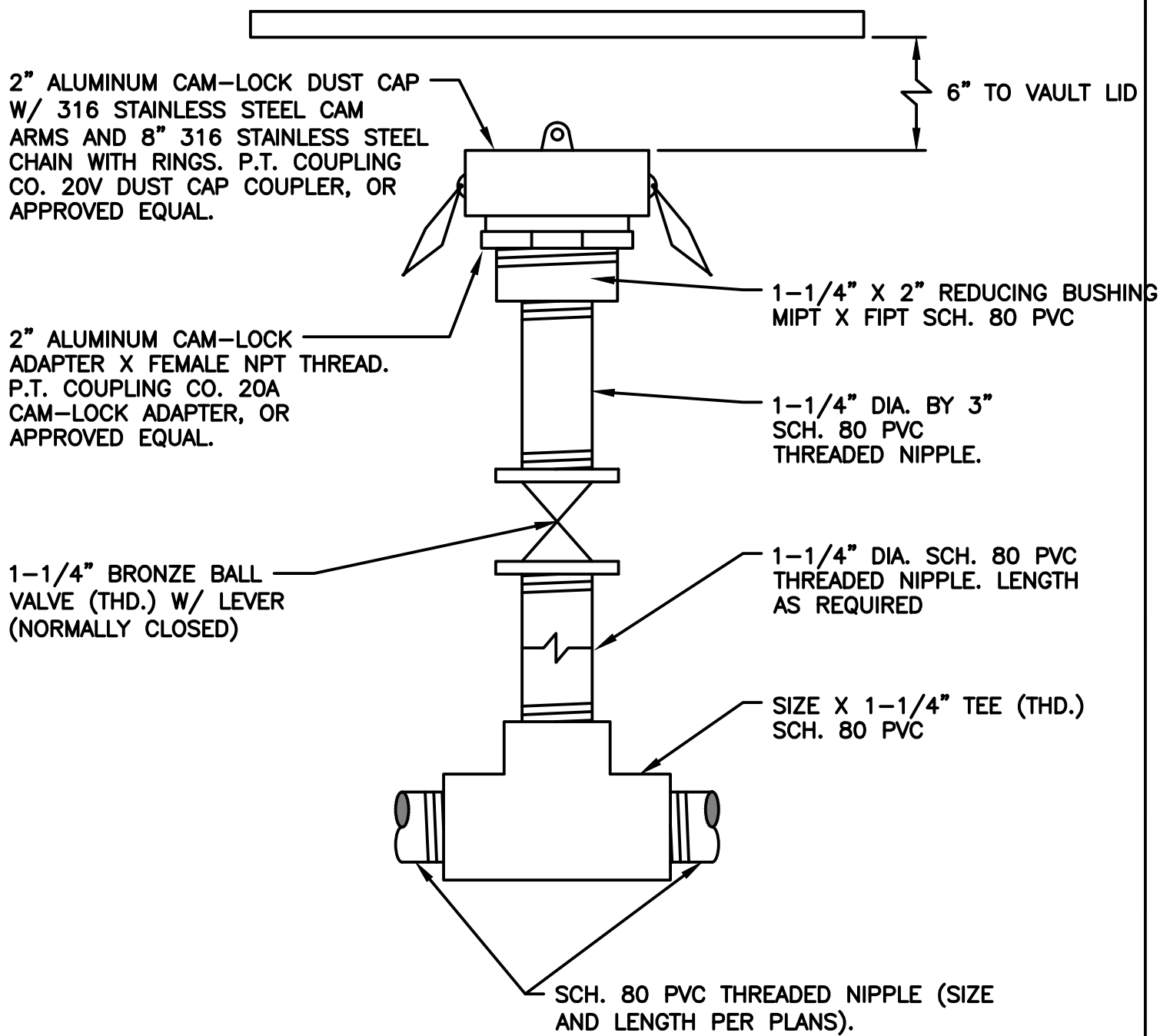
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CONTRACT 2020-XX
GRINDER PUMP STATIONS 1-4 REPLACEMENT
**GRINDER PUMP STATION 4
RESTORATION PLAN**

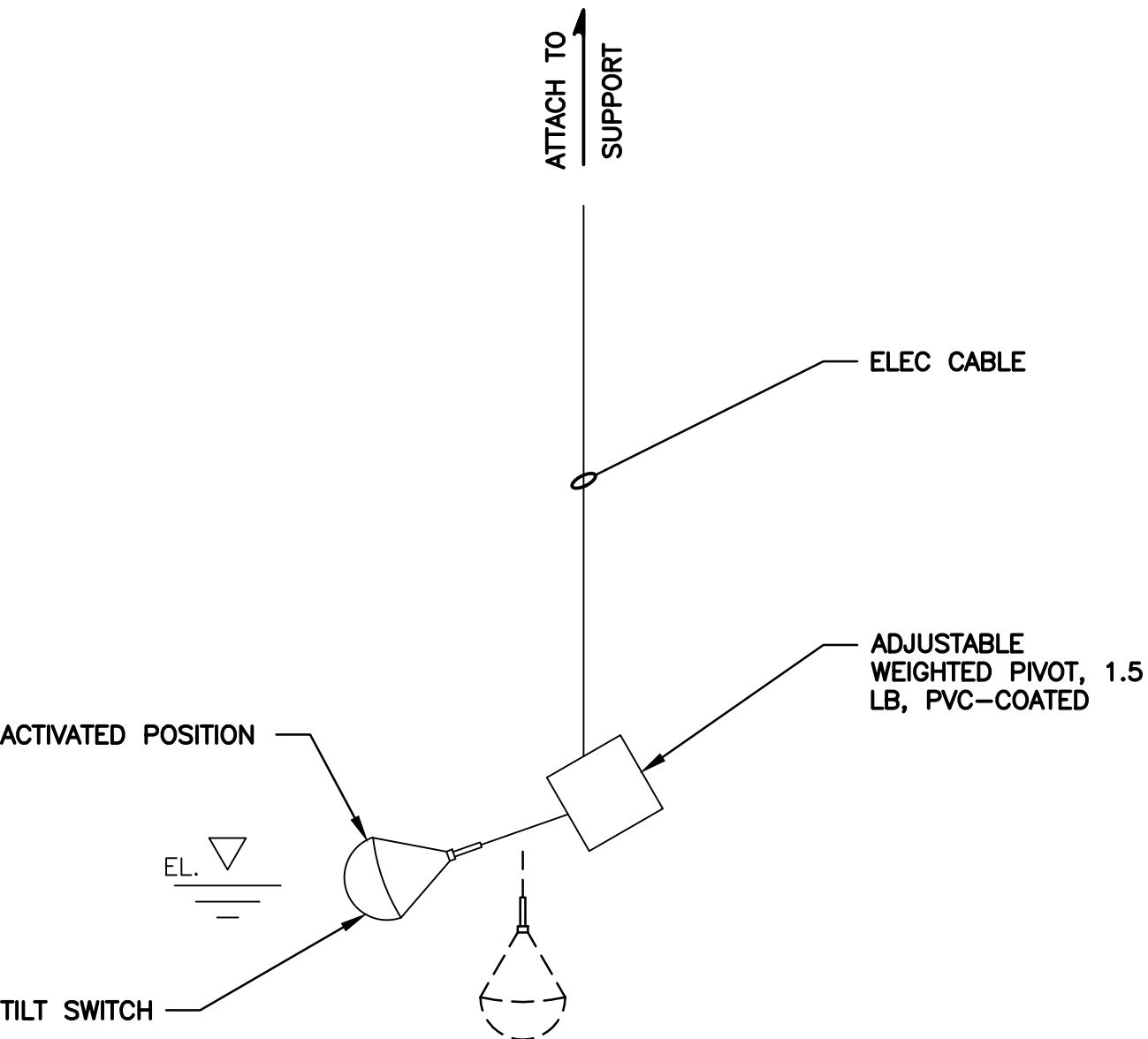
BASE MAP H4
C2003
SHEET
19 OF 20



1 HYDROSEED RESTORATION
TYP NTS



2 QUICK COUPLING BYPASS PUMPING CONNECTION
TYP NTS



3 HIGH LEVEL FLOAT DETAIL
TYP NTS

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CONTRACT 2020-XX
GRINDER PUMP STATIONS 1-4 REPLACEMENT

GENERAL DETAILS

BASE MAP H4

C2003

SHEET

20 OF 20

STATE ENVIRONMENTAL POLICY ACT

Determination of NonSignificance

Date of issuance: November 10, 2022

Lead agency: Northshore Utility District
6830 NE 185th Street
Kenmore, WA 98028

Agency Contact: *George Matote. P.E., Senior Engineer*
Northshore Utility District
gmatote@nud.net
(425) 521-3727

Project Description: The project includes rehabilitation of four Northshore Utility District (District) owned grinder pump stations located along part of the eastern shore of Lake Washington within the City of Kirkland. The stations, which were constructed in 1979 to convey sewage from residential development, have reached the end of their useful life and are in need of replacement. The project involves the replacement of existing components of the grinder pump stations in order to maintain the functionality of the stations which is essential for the District to continue to provide transmission of sewer flows from the served area. The project also aims to upgrade the stations in order to meet electrical or fire code compliance requirements which were enacted after the initial construction of the stations. The District proposes to replace failing components to help prevent deterioration of valves and piping while also improving the ease of operation. Upgrades will include demolition and replacement of the two existing submersible grinder pumps, piping, valves, check valves, electrical equipment, and accessories. The existing fiberglass wet well will be reused and the remainder of the station components will be replaced. A valve box will be added to the site along with necessary electrical handholes and control panels. This project also includes site restoration, planting landscaping in order to restore the site to existing condition or better.

Project Location: The project is located within easements on private property in the City of Kirkland. The properties associated with the improvements of the four grinder pump stations are as follows: 13819 62nd AVE NE 98034 (Parcel 376170-0205); 13661 62nd AVE NE 98034 (Parcel 376170-0176); 13649 62nd AVE NE 98034 (Parcel 376170-0165); 13635 62nd AVE NE 98034 (Parcel 376170-0145); 13629 62nd AVE NE 98034 (Parcel 376170-0140); 13619 62nd AVE NE 98034 (Parcel 376170-0130); 13613 62nd AVE NE 98034 (Parcel 376170-0125)

Proponent: *Northshore Utility District*

The lead agency has determined that this proposal will not have a probable significant adverse impact on the environment. An environmental impact statement (EIS) is not required under RCW 43.21C.030. We have reviewed the attached Environmental Checklist and other information on file with the lead agency. This information is available at: ***Northshore Utility District, 6830 NE 185th Street, Kenmore, WA 98028.***

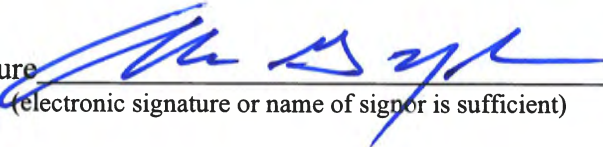
This determination is based on the following findings and conclusions:

The proposed mitigation measures and construction methods will adequately address potential impacts.

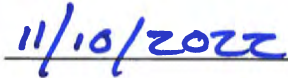
This DNS is issued under WAC 197-11-340(2) and the comment period will end on **November 25, 2022**.

Alan G. Nelson, General Manager
Northshore Utility District
6830 NE 185th Street
Kenmore, WA 98028
(425) 398-440

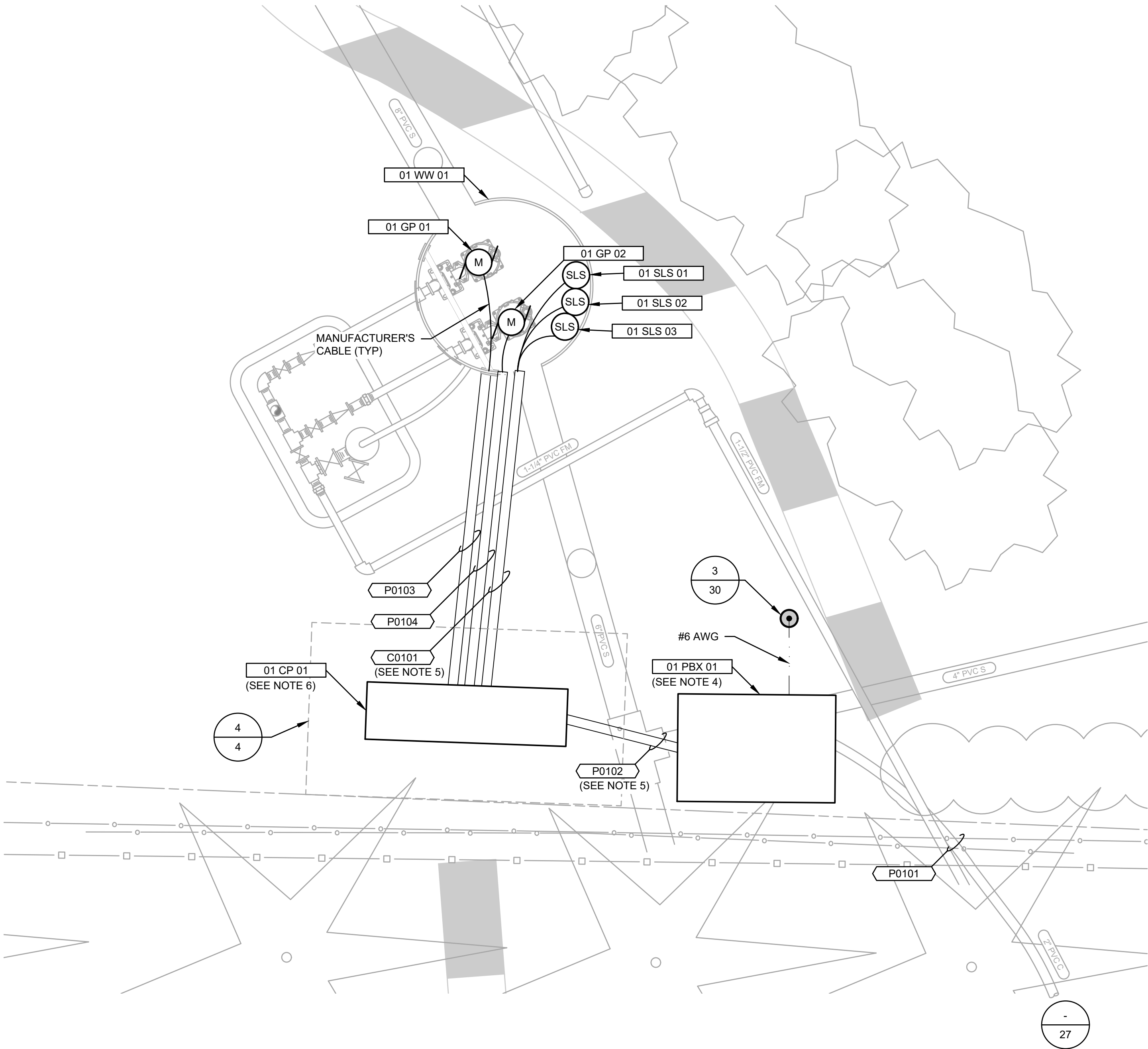
Signature


(electronic signature or name of signor is sufficient)

Date



Appeal process: The District will take no action on this proposal until 14 days after the date of issuance. Comments can be submitted in writing at the Northshore Utility District office located at 6830 NE 185th Street, Kenmore, Washington, or to George Matote, Senior Engineer, at gmatote@nud.net. Questions can be directed to George Matote at 425.521.3727.



AREA 01 [01 GPS 01] ELECTRICAL PLAN
SCALE: 3/4"=1'-0"



DEVICE TAG LIST		
TAG ID#	TAG DESCRIPTION	VINTAGE
01 CP 01	CONTROL PANEL, GRINDER PUMP STATION NO. 1	NEW
01 GP 01	GRINDER PUMP NO. 1, GRINDER PUMP STATION NO. 1	NEW
01 GP 02	GRINDER PUMP NO. 2, GRINDER PUMP STATION NO. 1	NEW
01 GPS 01	GRINDER PUMP STATION NO. 1	EXISTING
01 PBX 01	PULL BOX, SOUTH, GRINDER PUMP STATION NO. 1	NEW
01 SLS 01	LEVEL SWITCH, PUMPS OFF, GRINDER PUMP STATION NO. 1	NEW
01 SLS 02	LEVEL SWITCH, PUMP ON, GRINDER PUMP STATION NO. 1	NEW
01 SLS 03	LEVEL SWITCH, HIGH LEVEL, GRINDER PUMP STATION NO. 1	NEW
01 WW 01	WET WELL, GRINDER PUMP STATION NO. 1	EXISTING

POWER CABLE AND CONDUIT SCHEDULE					
NUMBER	SOURCE	DESTINATION	SIZE	CONDUCTORS	NOTES
P0101	[02 PBX 02], PULL BOX, NORTH, GRINDER PUMP STATION NO. 2	[01 PBX 01], PULL BOX, SOUTH, GRINDER PUMP STATION NO. 1	EXISTING	3X #1/0 AWG XHHW-2; 1X #3 AWG XHHW-2 G	CONDUCTORS ARE EXISTING
P0102	[01 PBX 01], PULL BOX, SOUTH, GRINDER PUMP STATION NO. 1	[01 CP 01], CONTROL PANEL, GRINDER PUMP STATION NO. 1	3/4"	3X #8 AWG XHHW-2; 1X #10 AWG XHHW-2 G	
P0103	[01 CP 01], CONTROL PANEL, GRINDER PUMP STATION NO. 1	[01 GP 01], GRINDER PUMP NO. 1, GRINDER PUMP STATION NO. 1	2"	MANUFACTURER'S CABLE	
P0104	[01 CP 01], CONTROL PANEL, GRINDER PUMP STATION NO. 1	[01 GP 02], GRINDER PUMP NO. 2, GRINDER PUMP STATION NO. 1	2"	MANUFACTURER'S CABLE	

CONTROL CABLE AND CONDUIT SCHEDULE						
NUMBER	SOURCE	DESTINATION	SIZE	CONDUCTORS	E-1 TYPE	NOTES
C0101	[01 CP 01], CONTROL PANEL, GRINDER PUMP STATION NO. 1	[01 WW 01], WET WELL, GRINDER PUMP STATION NO. 1	2"	MANUFACTURER'S CABLES	* 2	[01 SLS 01], [01 SLS 02], AND [01 SLS 03]

NOTES:

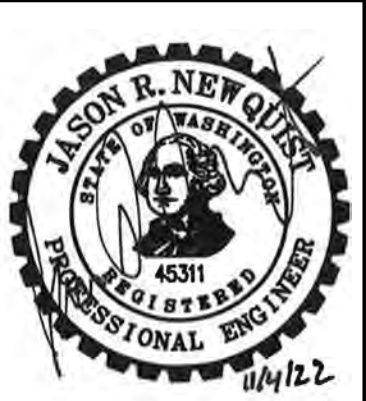
1. ELECTRICAL DEMOLITION IS NOT SHOWN ON THE ELECTRICAL DRAWINGS. SEE MECHANICAL DRAWINGS FOR DEMOLITION. FOR ALL EQUIPMENT THAT IS DEMOLISHED, REMOVE CABLES AND CONDUCTORS IN THEIR ENTIRETY, AND DEMOLISH CONDUIT TO TWO FEET BELOW GRADE, UNLESS NOTED OTHERWISE. BACKFILL TO MATCH SURROUNDINGS.
2. NOT ALL EXISTING CONDUITS ARE SHOWN, CONTRACTOR SHALL VERIFY EXISTING CONDUIT ROUTING AS NEEDED.
3. ALL POWER OUTAGES SHALL BE COORDINATED WITH THE OWNER.
4. CONTRACTOR SHALL LOCATE THE EXISTING POWER FEEDER AND INSTALL THE PULL BOX TO INTERCEPT. PROTECT THE EXISTING POWER FEEDER AND DEMOLISH THE EXISTING CONDUIT AS NEEDED. ADD CONDUIT ELBOW AND EXTEND CONDUIT INTO THE BOTTOM OF THE PULL BOX. SPLICE THE EXISTING CONDUCTORS TO THE CONDUCTORS IN CONDUIT P0102, USING LUGS THAT ARE RATED FOR DIRECT BURIAL. COORDINATE THE EXACT LOCATION WITH THE OWNER.
5. INCLUDE #6 AWG COPPER STRANDED CONDUCTOR IN CONDUIT TRENCH FOR WET WELL GROUNDING.
6. INSTALL CONTROL PANEL ON BACKPLATE PER

1
30

.
7. PANEL BOARD [15 PB 02] IS LOCATED APPROXIMATELY 1,421 FEET SOUTH INSIDE OF POWER DISTRIBUTION PANEL [15 PDP 01B]. THE GRINDER PUMPS POWER FEEDER IS CONNECTED TO CIRCUITS 8, 10, AND 12. COORDINATE ALL POWER OUTAGES WITH THE OWNER.
8. REFERENCE THE SCHEDULE OF CLASSIFIED AREAS ON

-
30

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NO	BY	APPD	REVISION	DATE

WARNING

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APPROVAL	JRN
DATE	NOV 2022



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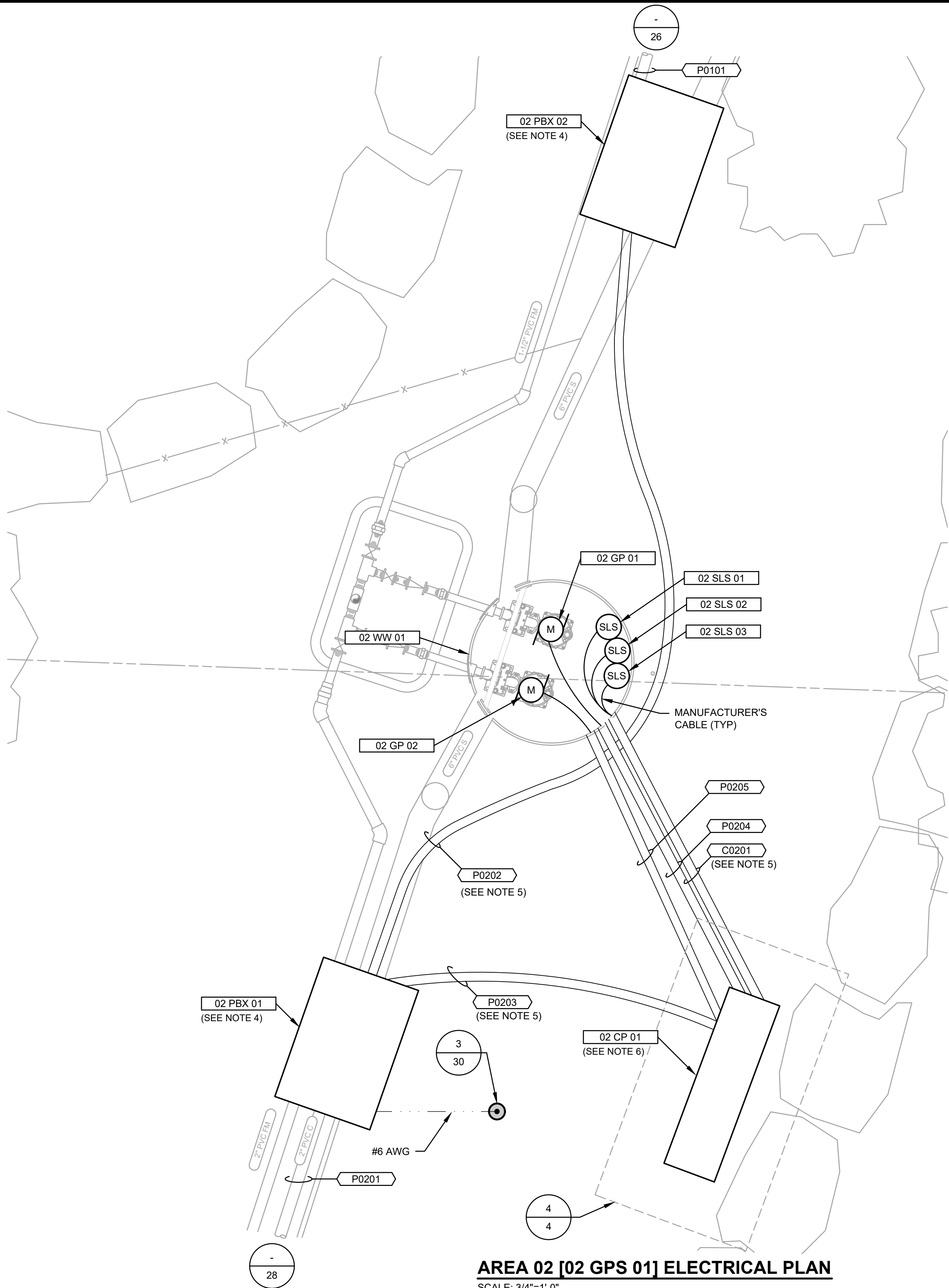
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CONTRACT 2022-01
GRINDER PUMP STATIONS 1-4 REPLACEMENT

GRINDER PUMP STATION 1
ELECTRICAL PLAN

BASE MAP H4
C2003
SHEET
26 OF 30



AREA 02 [02 GPS 01] ELECTRICAL PLAN

SCALE: 3/4"=1'-0"

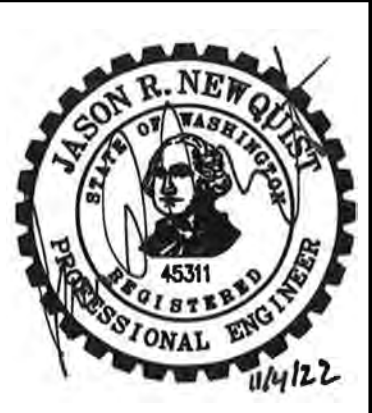
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02 GP 01	GRINDER PUMP NO. 1, GRINDER PUMP STATION NO. 2	NEW
02 GP 02	GRINDER PUMP NO. 2, GRINDER PUMP STATION NO. 2	NEW
02 GPS 01	GRINDER PUMP STATION NO. 2	EXISTING
02 PBX 01	PULL BOX, SOUTH, GRINDER PUMP STATION NO. 2	NEW
02 PBX 02	PULL BOX, NORTH, GRINDER PUMP STATION NO. 2	NEW
02 SLS 01	LEVEL SWITCH, PUMPS OFF, GRINDER PUMP STATION NO. 2	NEW
02 SLS 02	LEVEL SWITCH, PUMP ON, GRINDER PUMP STATION NO. 2	NEW
02 SLS 03	LEVEL SWITCH, HIGH LEVEL, GRINDER PUMP STATION NO. 2	NEW
02 WW 01	WET WELL, GRINDER PUMP STATION NO. 2	EXISTING

POWER CABLE AND CONDUIT SCHEDULE					
NUMBER	SOURCE	DESTINATION	SIZE	CONDUCTORS	NOTES
P0201	[03 PBX 02], PULL BOX, NORTH, GRINDER PUMP STATION NO. 3	[02 PBX 01], PULL BOX, SOUTH, GRINDER PUMP STATION NO. 2	EXISTING	3X #1/0 AWG XHHW-2; 1X #3 AWG XHHW-2 G	CONDUCTORS ARE EXISTING
P0202	[02 PBX 01], PULL BOX, SOUTH, GRINDER PUMP STATION NO. 2	[02 PBX 02], PULL BOX, NORTH, GRINDER PUMP STATION NO. 2	2"	3X #1/0 AWG XHHW-2; 1X #3 AWG XHHW-2 G	
P0203	[02 PBX 01], PULL BOX, SOUTH, GRINDER PUMP STATION NO. 2	[02 CP 01], CONTROL PANEL, GRINDER PUMP STATION NO. 2	3/4"	3X #8 AWG XHHW-2; 1X #10 AWG XHHW-2 G	
P0204	[02 CP 01], CONTROL PANEL, GRINDER PUMP STATION NO. 2	[02 GP 01], GRINDER PUMP NO. 1, GRINDER PUMP STATION NO. 2	2"	MANUFACTURER'S CABLE	
P0205	[02 CP 01], CONTROL PANEL, GRINDER PUMP STATION NO. 2	[02 GP 02], GRINDER PUMP NO. 2, GRINDER PUMP STATION NO. 2	2"	MANUFACTURER'S CABLE	

CONTROL CABLE AND CONDUIT SCHEDULE						
NUMBER	SOURCE	DESTINATION	SIZE	CONDUCTORS	E-1 TYPE	NOTES
C0201	[02 CP 01], CONTROL PANEL, GRINDER PUMP STATION NO. 2	[02 WW 01], WET WELL, GRINDER PUMP STATION NO. 2	2"	MANUFACTURER'S CABLES	* 2	[02 SLS 01], [02 SLS 02], AND [02 SLS 03]

NOTES:

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- NOT ALL EXISTING CONDUITS ARE SHOWN, CONTRACTOR SHALL VERIFY EXISTING CONDUIT ROUTING AS NEEDED.
- ALL POWER OUTAGES SHALL BE COORDINATED WITH THE OWNER.
- CONTRACTOR SHALL LOCATE THE EXISTING POWER FEEDER AND INSTALL THE PULL BOXES TO INTERCEPT. PROTECT THE EXISTING POWER FEEDER AND DEMOLISH THE EXISTING CONDUIT AS NEEDED. ADD CONDUIT ELBOWS AND EXTEND CONDUIT INTO THE BOTTOM OF THE PULL BOXES. SPLICE THE EXISTING CONDUCTORS TO THE CONDUCTORS IN CONDUIT P0202, AND IN [02 PBX 01], TO THE CONDUCTORS IN P0203 ALSO, USING LUGS THAT ARE RATED FOR DIRECT BURIAL. COORDINATE THE EXACT LOCATION WITH THE OWNER.
- INCLUDE #6 AWG COPPER STRANDED CONDUCTOR IN CONDUIT TRENCH FOR WET WELL GROUNDING.
- INSTALL CONTROL PANEL ON BACKPLATE PER
- PANEL BOARD [15 PB 02] IS LOCATED APPROXIMATELY 1,136 FEET SOUTH INSIDE OF POWER DISTRIBUTION PANEL [15 PDP 01B]. THE GRINDER PUMPS POWER FEEDER IS CONNECTED TO CIRCUITS 8, 10, AND 12. COORDINATE ALL POWER OUTAGES WITH THE OWNER.
- REFERENCE THE SCHEDULE OF CLASSIFIED AREAS ON



NO	BY	APPD	REVISION	DATE

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	CHECKED BY	JRN
	APPROVAL	JRN
DATE		NOV 2022

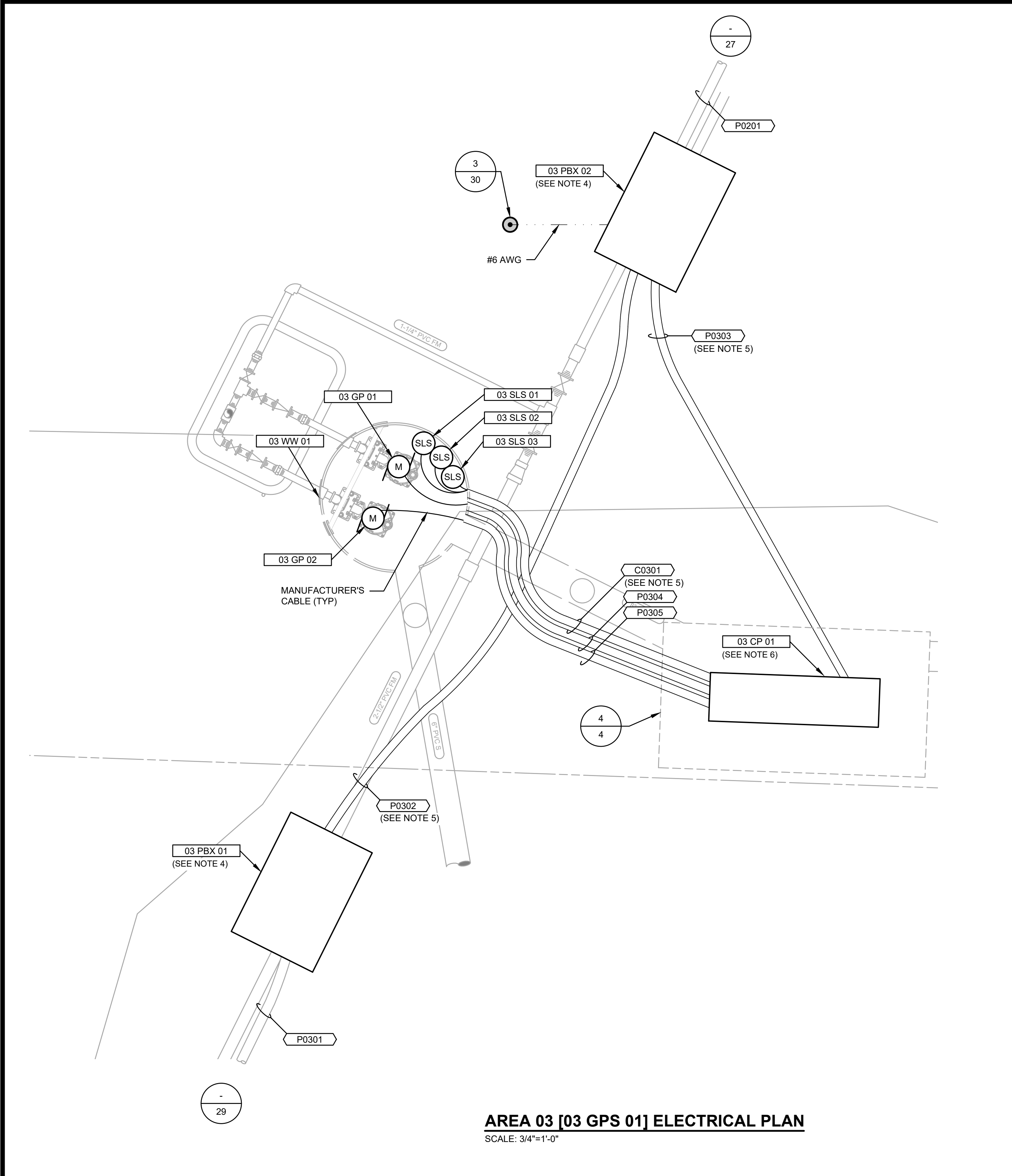
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CONTRACT 2022-01
GRINDER PUMP STATIONS 1-4 REPLACEMENT

**GRINDER PUMP STATION 2
ELECTRICAL PLAN**

BASE MAP H4
C2003
SHEET
27 OF 30



AREA 03 [03 GPS 01] ELECTRICAL PLAN
SCALE: 3/4"=1'-0"

DEVICE TAG LIST		
TAG ID#	TAG DESCRIPTION	VINTAGE
03 CP 01	CONTROL PANEL, GRINDER PUMP STATION NO. 3	NEW
03 GP 01	GRINDER PUMP NO. 1, GRINDER PUMP STATION NO. 3	NEW
03 GP 02	GRINDER PUMP NO. 2, GRINDER PUMP STATION NO. 3	NEW
03 GPS 01	GRINDER PUMP STATION NO. 3	EXISTING
03 PBX 01	PULL BOX, SOUTH, GRINDER PUMP STATION NO. 3	NEW
03 PBX 02	PULL BOX, NORTH, GRINDER PUMP STATION NO. 3	NEW
03 SLS 01	LEVEL SWITCH, PUMPS OFF, GRINDER PUMP STATION NO. 3	NEW
03 SLS 02	LEVEL SWITCH, PUMP ON, GRINDER PUMP STATION NO. 3	NEW
03 SLS 03	LEVEL SWITCH, HIGH LEVEL, GRINDER PUMP STATION NO. 3	NEW
03 WW 01	WET WELL, GRINDER PUMP STATION NO. 3	EXISTING

POWER CABLE AND CONDUIT SCHEDULE					
NUMBER	SOURCE	DESTINATION	SIZE	CONDUCTORS	NOTES
P0301	[04 PBX 02], PULL BOX, NORTH, GRINDER PUMP STATION NO. 4	[03 PBX 01], PULL BOX, SOUTH, GRINDER PUMP STATION NO. 3	EXISTING	3X #1/0 AWG XHHW-2; 1X #3 AWG XHHW-2 G	CONDUCTORS ARE EXISTING
P0302	[03 PBX 01], PULL BOX, SOUTH, GRINDER PUMP STATION NO. 3	[03 PBX 02], PULL BOX, NORTH, GRINDER PUMP STATION NO. 3	2"	3X #1/0 AWG XHHW-2; 1X #3 AWG XHHW-2 G	
P0303	[03 PBX 02], PULL BOX, NORTH, GRINDER PUMP STATION NO. 3	[03 CP 01], CONTROL PANEL, GRINDER PUMP STATION NO. 3	3/4"	3X #8 AWG XHHW-2; 1X #10 AWG XHHW-2 G	
P0304	[03 CP 01], CONTROL PANEL, GRINDER PUMP STATION NO. 3	[03 GP 01], GRINDER PUMP NO. 1, GRINDER PUMP STATION NO. 3	2"	MANUFACTURER'S CABLE	
P0305	[03 CP 01], CONTROL PANEL, GRINDER PUMP STATION NO. 3	[03 GP 02], GRINDER PUMP NO. 2, GRINDER PUMP STATION NO. 3	2"	MANUFACTURER'S CABLE	

CONTROL CABLE AND CONDUIT SCHEDULE						
NUMBER	SOURCE	DESTINATION	SIZE	CONDUCTORS	E-1 TYPE	NOTES
C0301	[03 CP 01], CONTROL PANEL, GRINDER PUMP STATION NO. 3	[03 WW 01], WET WELL, GRINDER PUMP STATION NO. 3	2"	MANUFACTURER'S CABLES	* 2	[03 SLS 01], [03 SLS 02], AND [03 SLS 03]

NOTES:

- ELECTRICAL DEMOLITION IS NOT SHOWN ON THE ELECTRICAL DRAWINGS. SEE MECHANICAL DRAWINGS FOR DEMOLITION. FOR ALL EQUIPMENT THAT IS DEMOLISHED, REMOVE CABLES AND CONDUCTORS IN THEIR ENTIRETY, AND DEMOLISH CONDUIT TO TWO FEET BELOW GRADE, UNLESS NOTED OTHERWISE. BACKFILL TO MATCH SURROUNDINGS.
- NOT ALL EXISTING CONDUITS ARE SHOWN, CONTRACTOR SHALL VERIFY EXISTING CONDUIT ROUTING AS NEEDED.
- ALL POWER OUTAGES SHALL BE COORDINATED WITH THE OWNER.
- CONTRACTOR SHALL LOCATE THE EXISTING POWER FEEDER AND INSTALL THE PULL BOXES TO INTERCEPT. PROTECT THE EXISTING POWER FEEDER AND DEMOLISH THE EXISTING CONDUIT AS NEEDED. ADD CONDUIT ELBOWS AND EXTEND CONDUIT INTO THE BOTTOM OF THE PULL BOXES. SPLICE THE EXISTING CONDUCTORS TO THE CONDUCTORS IN CONDUIT P0302 AND, IN [03 PBX 02], TO THE CONDUCTORS IN P0303 ALSO, USING LUGS THAT ARE RATED FOR DIRECT BURIAL. COORDINATE THE EXACT LOCATION WITH THE OWNER.
- INCLUDE #6 AWG COPPER STRANDED CONDUCTOR IN CONDUIT TRENCH FOR WET WELL GROUNDING.
- INSTALL CONTROL PANEL ON BACKPLATE PER
- PANEL BOARD [15 PB 02] IS LOCATED APPROXIMATELY 863 FEET SOUTH INSIDE OF POWER DISTRIBUTION PANEL [15 PDP 01B]. THE GRINDER PUMPS POWER FEEDER IS CONNECTED TO CIRCUITS 8, 10, AND 12. COORDINATE ALL POWER OUTAGES WITH THE OWNER.
- REFERENCE THE SCHEDULE OF CLASSIFIED AREAS ON

NO	BY	APPD	REVISION	DATE

WARNING
0 1/2 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

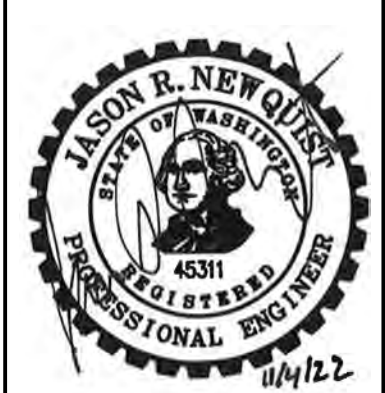


DESIGNED BY	PAM
DRAWN BY	PEB
CHECKED BY	JRN
APPROVAL	JRN
DATE	NOV 2022

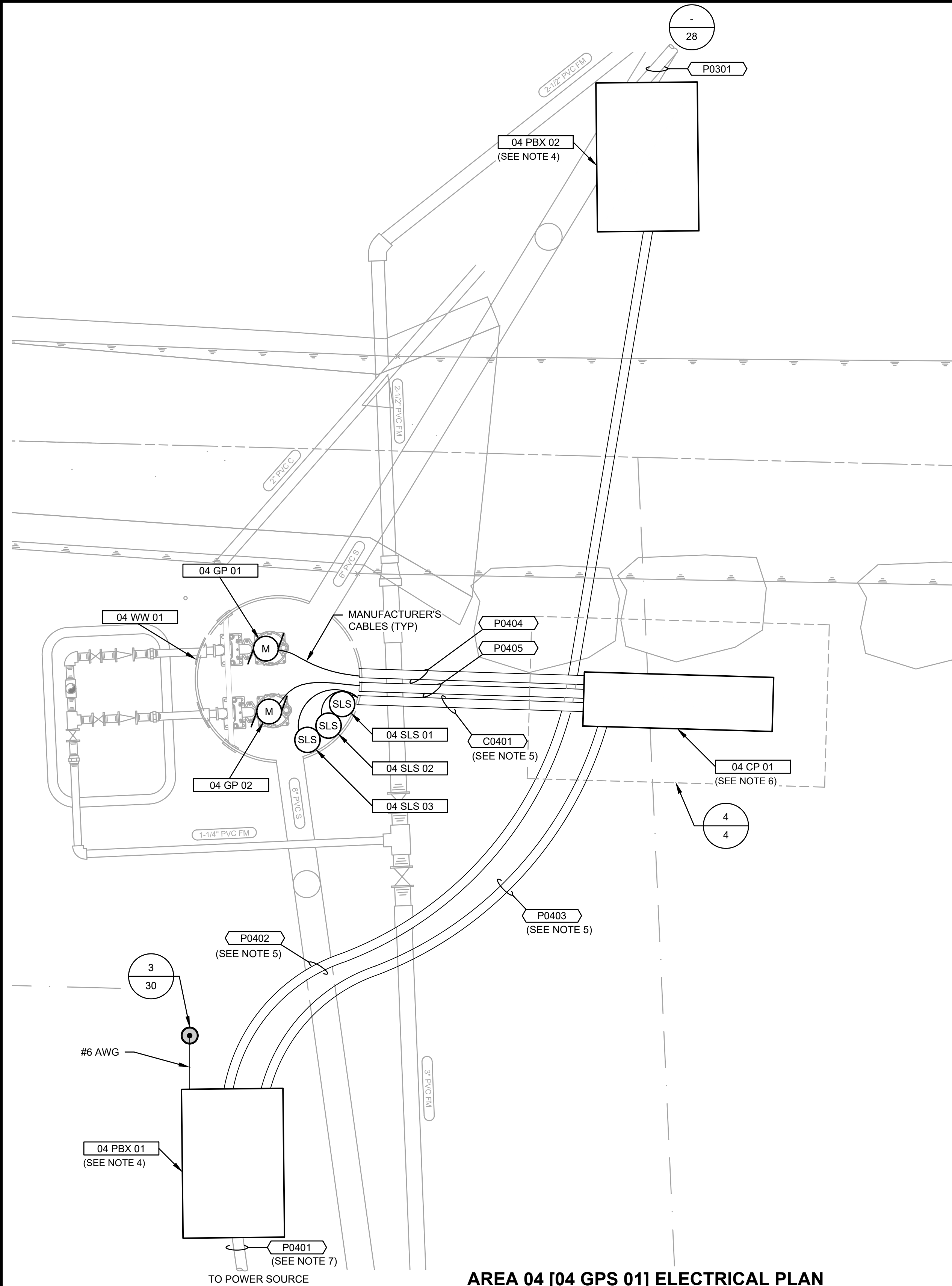


NORTHSHORE UTILITY DISTRICT
6830 NE 185th St. P.O. Box 82489
Kenmore, WA 98028-2684 Kenmore, WA 98028-2684
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CONTRACT 2022-01
GRINDER PUMP STATIONS 1-4 REPLACEMENT
**GRINDER PUMP STATION 3
ELECTRICAL PLAN**



BASE MAP H4
C2003
SHEET
28 OF 30



AREA 04 [04 GPS 01] ELECTRICAL PLAN

SCALE: 3/4"=1'-0"

NO	BY	APPD	REVISION	DATE

WARNING

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE

	DESIGNED BY	PAM
	DRAWN BY	PEB
	CHECKED BY	JRN
	APPROVAL	JRN
DATE	NOV 2022	

NORTHSHORE UTILITY DISTRICT

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Kenmore, WA 98028-2684

P.O. Box 82489
Kenmore, WA 98028-2684

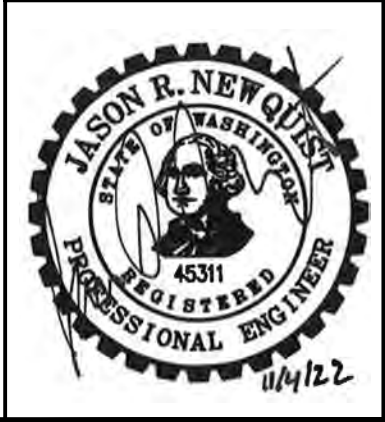
Ph: (425) 398-4400 |

Fax: (425) 398-4430 |

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CONTRACT 2022-01
GRINDER PUMP STATIONS 1-4 REPLACEMENT

GRINDER PUMP STATION 4
ELECTRICAL PLAN



BASE MAP H4
C2003
SHEET
29 OF 30



DEVICE TAG LIST		
TAG ID#	TAG DESCRIPTION	VINTAGE
04 CP 01	CONTROL PANEL, GRINDER PUMP STATION NO. 4	NEW
04 GP 01	GRINDER PUMP NO. 1, GRINDER PUMP STATION NO. 4	NEW
04 GP 02	GRINDER PUMP NO. 2, GRINDER PUMP STATION NO. 4	NEW
04 GPS 01	GRINDER PUMP STATION NO. 4	EXISTING
04 PBX 01	PULL BOX, SOUTH, GRINDER PUMP STATION NO. 4	NEW
04 PBX 02	PULL BOX, NORTH, GRINDER PUMP STATION NO. 4	NEW
04 SLS 01	LEVEL SWITCH, PUMPS OFF, GRINDER PUMP STATION NO. 4	NEW
04 SLS 02	LEVEL SWITCH, PUMP ON, GRINDER PUMP STATION NO. 4	NEW
04 SLS 03	LEVEL SWITCH, HIGH LEVEL, GRINDER PUMP STATION NO. 4	NEW
04 WW 01	WET WELL, GRINDER PUMP STATION NO. 4	EXISTING

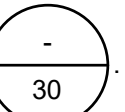
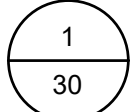
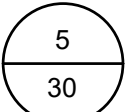
DEVICE TAG LIST		
TAG ID#	TAG DESCRIPTION	VINTAGE
15 LS 01	LIFT STATION NO. 15	EXISTING
15 PB 02	PANELBOARD, 240/120V, LIFT STATION NO. 15 POWER DISTRIBUTION PANEL	EXISTING
15 PDP 01B	POWER DISTRIBUTION PANEL, LIFT STATION NO. 15	EXISTING

POWER CABLE AND CONDUIT SCHEDULE					
NUMBER	SOURCE	DESTINATION	SIZE	CONDUCTORS	NOTES
P0401	[15 PB 02], PANELBOARD, 240/120V, LIFT STATION NO. 15 POWER DISTRIBUTION PANEL	[04 PBX 01], PULL BOX, SOUTH, GRINDER PUMP STATION NO. 4	EXISTING	3X #1/0 AWG XHHW-2; 1X #3 AWG XHHW-2 G	CONDUCTORS ARE EXISTING.
P0402	[04 PBX 01], PULL BOX, SOUTH, GRINDER PUMP STATION NO. 4	[04 PBX 02], PULL BOX, NORTH, GRINDER PUMP STATION NO. 4	2"	3X #1/0 AWG XHHW-2; 1X #3 AWG XHHW-2 G	
P0403	[04 PBX 01], PULL BOX, SOUTH, GRINDER PUMP STATION NO. 4	[04 CP 01], CONTROL PANEL, GRINDER PUMP STATION NO. 4	3/4"	3X #8 AWG XHHW-2; 1X #10 AWG XHHW-2 G	
P0404	[04 CP 01], CONTROL PANEL, GRINDER PUMP STATION NO. 4	[04 GP 01], GRINDER PUMP NO. 1, GRINDER PUMP STATION NO. 4	2"	MANUFACTURER'S CABLES	
P0405	[04 CP 01], CONTROL PANEL, GRINDER PUMP STATION NO. 4	[04 GP 02], GRINDER PUMP NO. 2, GRINDER PUMP STATION NO. 4	2"	MANUFACTURER'S CABLES	

CONTROL CABLE AND CONDUIT SCHEDULE						
NUMBER	SOURCE	DESTINATION	SIZE	CONDUCTORS	E-1 TYPE	NOTES
C0401	[04 CP 01], CONTROL PANEL, GRINDER PUMP STATION NO. 4	[04 WW 01], WET WELL, GRINDER PUMP STATION NO. 4	2"	MANUFACTURER'S CABLES	* 2	[04 SLS 01], [04 SLS 02], AND [04 SLS 03]

NOTES:

- ELECTRICAL DEMOLITION IS NOT SHOWN ON THE ELECTRICAL DRAWINGS. SEE MECHANICAL DRAWINGS FOR DEMOLITION. FOR ALL EQUIPMENT THAT IS DEMOLISHED, REMOVE CABLES AND CONDUCTORS IN THEIR ENTIRETY, AND DEMOLISH CONDUIT TO TWO FEET BELOW GRADE, UNLESS NOTED OTHERWISE. BACKFILL TO MATCH SURROUNDINGS.
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- INCLUDE #6 AWG COPPER STRANDED CONDUCTOR IN CONDUIT TRENCH FOR WET WELL GROUNDING.
- INSTALL CONTROL PANEL ON BACKPLATE PER
- PANEL BOARD [15 PB 02] IS LOCATED APPROXIMATELY 650 FEET SOUTH INSIDE OF POWER DISTRIBUTION PANEL [15 PDP 01B]. THE GRINDER PUMPS POWER FEEDER IS CONNECTED TO CIRCUITS 8, 10, AND 12. COORDINATE ALL POWER OUTAGES WITH THE OWNER.
- REFERENCE THE SCHEDULE OF CLASSIFIED AREAS ON
- LIFT STATION NO. 15 DEVICE TAGS ARE SHOWN FOR REFERENCE ONLY.

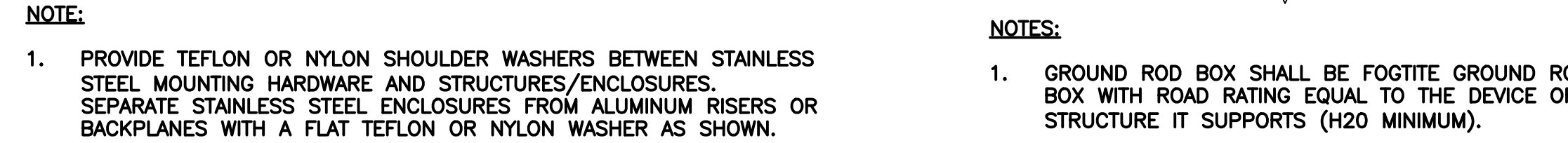




- $$\frac{2}{-}$$

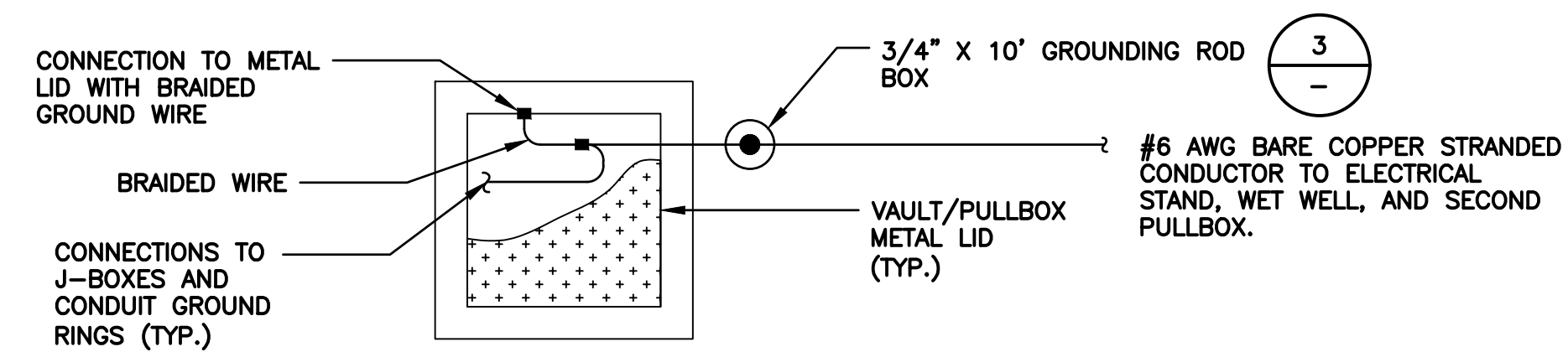
1 FREE-STANDING BACKPLATE MOUNTING DETAIL

SCHEDULE OF CLASSIFIED AREAS		
LOCATION	CLASSIFICATION	EXTENT OF ENVELOPE
WET WELL	CLASS 1, DIVISION 1	WITHIN THE WET WELL AND WITHIN A 3-FOOT RADIUS FROM THE HATCH OPENING.
WET WELL	CLASS 1, DIVISION 2	WITHIN A 5-FOOT RADIUS FROM THE HATCH OPENING.



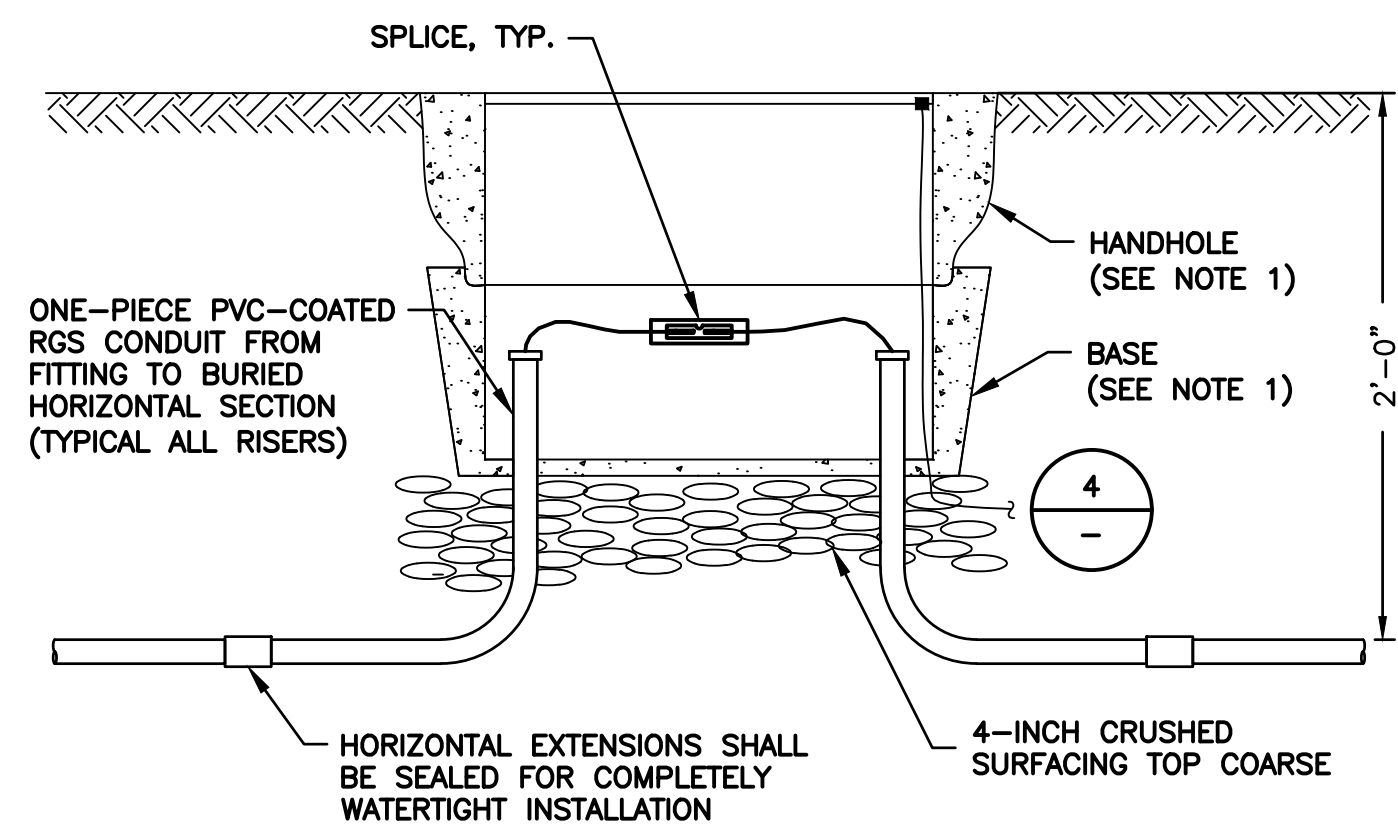
2 **SHOULDER WASHER MOUNTING DETAIL**
 TYP NOT TO SCALE

3 **GROUND ROD BOX DETAIL**
TYP NOT TO SCALE



- NOTES:**
1. GROUND CONDUCTOR SHALL BE BARE COPPER STRANDED #6 AWG.
 2. GROUND ALL METAL COMPONENTS AS PER "VAULT AND PULLBOX GROUNDING" IN SPECIFICATION 16060.
 3. ALL GROUND CONDUCTORS SHALL BE STRANDED WITH THE EXCEPTION OF THE FLEXIBLE BRAIDED GROUND CONDUCTOR TO THE METAL HATCH LIDS.

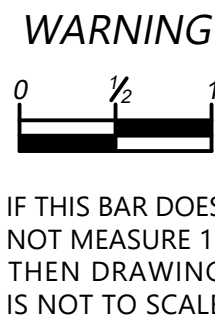
4 METAL LID GROUNDING DETAIL
- NOT TO SCALE



- NOTES:**
1. FOGTITE INC. J-11 TYPE 2 NON-SKID HANDHOLE WITH BONDING STRAP, GALVANIZED STEEL LID, RATED H-20 LOADING, WITH POSITIVE LOCK, AND WITH MATCHING BASE. FURNISH AND INSTALL PULL BOX ASSEMBLY ON TOP OF 4-INCH THICK CRUSHED SURFACING TOP COURSE. PROVIDE LID WITH "POWER" LEGEND.

5 PULL BOX DETAIL
TYP NOT TO SCALE

NO	BY	APPD	REVISION	DATE



DESIGNED BY	PAM
DRAWN BY	PEB
CHECKED BY	JRN
APPROVAL	JRN
DATE	NOV 2022



NORTHSHORE UTILITY DISTRICT

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CONTRACT 2022-01
GRINDER PUMP STATIONS 1-4 REPLACEMENT

ELECTRICAL DETAILS

BASE MAP H4

C2003

HEET

30 OF 30





November 10, 2022

Kelly Wilkinson
City of Kirkland Planning Department
123 5th Avenue
Kirkland, WA 98033

Re: Northshore Utility District Grinder 4 Pump Station, Critical Areas Report Peer Review

The Watershed Company Reference Number: 200134.46

Dear Kelly:

This letter represents our peer review for the above-referenced project. Northshore Utility District proposes replacing components of an existing sanitary sewer grinder pump station adjacent to Lake Washington and within the buffer of a Type F stream. The project spans the lakeshore waterfront of two single-family residential properties (parcels #3761700125 and #3761700130). The project will require a shoreline variance. The applicant proposes the use of mitigation bank credits from the Keller Farm Mitigation Bank (KFMB) to mitigate unavoidable permanent stream buffer impacts. The project approach, existing conditions, proposed mitigation, and code compliance are summarized in the *Northshore Utility District Grinder Pump Station 4 Critical Areas Report* (Environmental Science Associates, July 2022) (CAR). I conducted a site visit on October 31, 2022, to verify the reported site conditions.

CAR Summary

The CAR identified one fish-bearing (Type F) stream located along the shared boundary of the two properties. The proposed project will result in 21 square feet of permanent buffer impacts and approximately 241 square feet of temporary stream buffer impacts. As mitigation for the permanent impacts, the applicant proposes to purchase 0.0023 credits from KFMB, which is equivalent to 330 square feet of buffer area; this represents a mitigation ratio of 15.7:1. Temporary buffer impacts will be restored with native grass seed, returning to the existing condition.

All project activities will occur within shoreline jurisdiction associated with Lake Washington; the project area is in the Low-density Residential Shoreline Environmental Designation. The project will require a shoreline variance. The CAR addresses each of the submittal requirements itemized under KZC 83.490(6)(a) and the shoreline variance criteria under WAC 173-27-170.

Peer Review Comment

I agree with the delineation and classification of the on-site stream as a Type F stream with a 100-foot standard buffer. I agree that the existing buffer condition is primarily mowed lawn and existing development, with all proposed impacts occurring in areas of mowed lawn and that the impacts as characterized satisfy avoidance and minimization requirements. However, as the CAR notes, much of the lawn areas contain a prevalence of small-fruited bulrush (*Scirpus microcarpus*), an obligate wetland plant species (Figures 1 and 2). The CAR did not provide any wetland data sheets sufficiently documenting vegetation, soils, and hydrology in the impacts areas. A written description of the soil was provided in the text: "*A representative profile contains ashy fine sandy loam to 27 inches underlain by loamy sand to 60 inches (USDA, 2022a). Ragnar-Indianola association is not considered to be a hydric soil (USDA, 2022B).*" This description does not provide sufficient detail to determine if the soils are hydric and does not address wetland hydrology indicators. Given the prevalence of an obligate-wetland plant species and at least one secondary hydrology indicator (geomorphic position), additional wetland data must be provided to determine if wetland impacts will occur in addition to only buffer impacts.

The critical areas regulations under Chapter 90 of Kirkland Zoning Code (KZC) are incorporated by reference into the Kirkland Shoreline Master Program (SMP) with specified provisions excluded or clarified (KZC 83.490). Unavoidable wetland and/or buffer impacts may be mitigated through the use of an approved mitigation bank (KZC 90.145.4.b). It must be clarified that the City of Kirkland does not have sole authority to authorize the use of KFMB credits for stream buffer impacts, as stream buffer mitigation is not specified as an approved use of credits, therefore, requiring special authorization from the Interagency Review Team (IRT). The applicant has provided documentation that the IRT has authorized the use of KFMB credits for the proposed stream buffer impacts (Suzanne Anderson, Co-chair for the Keller Farm Mitigation Bank IRT, email communication, 8/17/2022). In accordance with the IRT authorization, and my review of the limited functions provided by the stream buffer impact areas and lack of on-site options for permittee-responsible mitigation, I agree that the use of KFMB credits is an appropriate mitigation strategy for the project. However, the applicant must provide additional documentation for whether the impact areas are located within a wetland,

which may necessitate additional mitigation credits and state and federal permits or authorizations.

Restoring temporary buffer impacts with a native grass seed mix is an appropriate approach and should restore buffer functions within one growing season.

The CAR sufficiently addresses the submittal requirements and shoreline variance criteria under KZC 83.490.6(a) and WAC 173-27-170, respectively, and addresses avoidance and minimization criteria. There does not appear to be a feasible alternative to the proposed project that can provide the necessary public utility services with less adverse impacts to critical area functions.



Figure 1. Potential wetland in project area. Note abrupt edge of green grasses, bulrushes, and creeping buttercup in contrast to adjacent lawn areas, likely due to increased soil moisture (10/31/2022). No irrigation system was found as a potential alternative source of hydrology.



Figure 2. Potential wetland in project area. Note prevalence of small-fruited bulrush (taller, brighter green plants), an obligate-wetland plant species (10/31/2022).

Recommendations

The applicant should provide additional documentation in potential wetland areas with prevalence of small-fruited bulrush. All three wetland parameters should be thoroughly assessed. If wetland conditions are documented, the proposed use of mitigation bank credits should be reassessed accordingly.

Please contact us with any questions or requests for additional information.

Sincerely,

A handwritten signature in blue ink, appearing to read 'R. Kahlo'.

Ryan Kahlo, PWS
Senior Ecologist

From: [Anderson, Suzanne L CIV USARMY CENWS \(USA\)](#)
To: [Aaron Ellig; Thompson, Kate \(ECY\)](#)
Cc: [Garnett.Becky@epa.gov](#); [Storm.Linda@epa.gov](#); [david.hirsh@noaa.gov](#); [TWHARDY@redmond.gov](#); [Stewart.Reinbold@dfw.wa.gov](#); [Casey.Costello@dfw.wa.gov](#); [CBEAM@REDMOND.GOV](#); [martin.fox@muckleshoot.nsn.us](#); [glen.stamant@muckleshoot.nsn.us](#); [Mattb@snoqualmtribe.us](#); [kelsey.payne@snoqualmtribe.us](#); [aosullivan@suquamish.nsn.us](#); [Kurt Nelson](#); [CBEAM@REDMOND.GOV](#); [TWHARDY@redmond.gov](#); [zachary.woodward@habitatbank.com](#); [victorw@habitatbank.com](#)
Subject: RE: Keller Farm Mitigation Bank - request for comment on proposal to purchase credits for 21 sq.ft. stream buffer impacts. Please respond by AUGUST 16, 2022
Date: Wednesday, August 17, 2022 1:10:26 PM

Good afternoon Aaron Ellig,

The Co-chairs for the Keller Farm Mitigation Bank Inter-Agency Review Team (IRT), Kate Thompson (Washington State Department of Ecology) and Suzanne Anderson (USACE), reviewed the "Northshore Utility District Grinder Pump Station Critical Areas Report" dated July 2022 (report). In the report, Northshore Utility District requests to purchase 0.0023 of a credit from the Keller Farm Mitigation Bank (Bank) to compensate for unavoidable stream buffer impacts associated with improvements to the Grinder Pump Station 4 (permits from the City of Kirkland). Although the impact site is located within the Bank's Lake Washington Service Area, because the impact would be to a stream buffer, the Bank Instrument requires that the Co-chairs coordinate with the IRT.

The Co-chairs determined that the report included all of the information necessary for the IRT's review, and on August 2, 2022, the report and the stream buffer compensation request were forwarded to the Bank IRT. The Co-chairs received two responses during the specified review period which expired at the close of business, August 17, 2022. The responses from the City of Redmond and the Snoqualmie Indian Tribe did not object to the stream buffer compensation request.

Based on our review of the report and the responses received from the IRT, the Keller Farm Mitigation Bank IRT Co-chairs approve the use of the Keller Farm Mitigation Bank to offset the unavoidable stream buffer impacts associated with the Grinder Pump Station 4 project.

Please let me know if you have any questions,

Suzanne Anderson

Co-chair for the Keller Farm Mitigation Bank IRT

Suzanne L. Anderson, PhD, PWS
 Mitigation Program Coordinator
 Regulatory Branch
 Seattle District USACE
 206-764-3708

suzanne.l.anderson@usace.army.mil

From: Anderson, Suzanne L CIV USARMY CENWS (USA)
Sent: Tuesday, August 2, 2022 8:20 AM

To: Thompson, Kate (ECY) <kath461@ecy.wa.gov>; Garnett.Becky@epa.gov; Storm.Linda@epa.gov; david.hirsh@noaa.gov; Stewart.Reinbold@dfw.wa.gov; Casey.Costello@dfw.wa.gov; CBEAM@REDMOND.GOV; TWHARDY@redmond.gov; martin.fox@muckleshoot.nsn.us; glen.stamant@muckleshoot.nsn.us; Mattb@snoqualmtribe.us; kelsey.payne@snoqualmtribe.us; aosullivan@suquamish.nsn.us; knelson@tulaliptribes-nsn.gov

Cc: CBEAM@REDMOND.GOV; TWHARDY@redmond.gov; Nadjkovic, Amanda N CIV USARMY CENWS (USA) <Amanda.N.Nadjkovic@usace.army.mil>; zachary.woodward@habitatbank.com; victorw@habitatbank.com

Subject: Keller Farm Mitigation Bank - request for comment on proposal to purchase credits for 21 sq.ft. stream buffer impacts. Please respond by AUGUST 16, 2022

<< File: NUD Grinder Pump Station 4 Critical Areas Report V2.pdf >>

Good morning Keller Farm Mitigation Bank IRT Members,

The Co-chairs have received a request from Northshore Utility District (NUD, applicant) to purchase credits from the Keller Farm Mitigation Bank to compensate for permanent impacts to stream buffer. **The applicant proposes to purchase 0.0023 of a credit to compensate for 21 square feet (0.0005 of an acre) of stream buffer impact.**

The proposed project is located at 13613 62nd Avenue NE, Kirkland, Washington. It involves the replacement of some existing components of Grinder Pump Station 4 which conveys sewage from residential developments along a portion of the eastern shore of Lake Washington. **The impact site is located within the Lake Washington Service Area** of the Keller Farm Mitigation Bank. Please see the attached *Northshore Utility District Grinder Pump Station 4 Critical Areas Report* dated July 2022 (Critical Areas Report), for details. The project requires permits from the City of Kirkland; it does not require permits from the Corps or Ecology.

In accordance with the Keller Farm Mitigation Banking Instrument (MBI) Appendix E.3, within the Lake Washington Service Area, the following impacts to aquatic resources may be compensated through the use of Bank credits: wetland buffer-only impacts; impacts to Category II, III, and IV Wetlands that are not directly adjoining known or potential salmonid-bearing streams such as non-riverine wetlands; wetlands that do not qualify as Waters of the United States; and violation losses to those kinds of wetlands. Other types of impacts in the Lake Washington Service Area may be allowed to be compensated at the Bank on a case-by-case basis, with approval by the permitting agencies and the Corps and Ecology, following consultation with the IRT. The Co-chairs are asking for IRT comments on the proposed purchase of Bank credits as compensation for the proposed impacts.

Project Summary

Grinder Pump Station 4 was constructed in 1979, and improvements are required to bring it into compliance with current electric and fire codes. Failure of the Grinder Pump Station could lead to sewer backups and overflow, which would cause environmental damage and threats to public health. The project site is situated between two developed residential parcels (totaling 1.67 acres) in Kirkland, Washington (refer to Figures 1 and 2 in the attached Critical Areas Report). Land uses surrounding the project area consist of single-family houses, driveways, and private docks. Saint Edwards State Park is located approximately 0.25 mile north of the site, and Lake Washington is located directly west of the site. An intermittent stream with a bankfull width of 2- to 3-feet and wetted depths of 3- to 6-inches bisects the two parcels from east to west, before outletting to Lake Washington. The footprint of the work area is 244 square feet within the stream buffer, along the western edges of the parcels.

The proposed maintenance project would result in 21 square feet of permanent fill in the stream buffer. In addition, 214 square feet of temporary impacts would occur during construction; however, the temporary impacts would be restored to pre-construction conditions immediately following project completion.

The project would occur within a narrow utility easement, and the project footprint has been limited to the minimum size necessary to comply with electric and fire code specifications. The limited existing emergent vegetation located directly adjacent to the stream channel would be preserved, and the impact area is limited to mowed lawn and hardscape that is providing minimal ecologic functions (refer to photos in the attached Critical Areas Report). Permittee-responsible on-site and off-site mitigation within the immediate project vicinity was determined to be infeasible. During easement negotiations, private property owners declined to allow plantings for mitigation purposes. Off-site adjacent properties are privately owned and are not available for acquisition for mitigation purposes.

Proposed Credits

According to the recommended debit ratios in Appendix E, Section E.5 of the Keller Farm MBI, the typical mitigation ratio for critical area buffer impacts is 0.3:1 (Bank Credit to impact acreage). The applicant proposes to purchase 0.0023 of a credit which would provide compensation at a ratio of 15:1.

The Co-chairs support the use of the Keller Farm Bank as compensation for the proposed impacts. Although the project would result in impacts to stream buffer, an aquatic resource type that is not specifically included as an impact category for the Lake Washington Service Area, the Keller Farm Mitigation Bank can provide compensation for aquatic resource buffers on a case-by-case basis. Based on the small impact size, degraded functions of the existing stream buffer, and lack of on-site or off-site permittee-responsible mitigation opportunities, the Co-chairs have determined that using mitigation credits from the Keller Farm Mitigation Bank is the ecologically preferable compensation option.

IRT Response

The Co-chairs must receive your comments by the close of business on Tuesday August 16, 2022, in order to be considered in our review of this request. If we do not hear from you by that time, we will assume that you do not have any comments on this request.

If you have any questions regarding this e-mail or the project, please feel free to contact me (see contact information below). Please let me know if you would prefer not to be contacted concerning Keller Farm Mitigation Bank requests in the future.

Thank you,

Suzanne

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