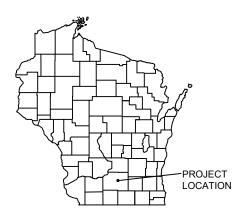
# HARPER ROAD LIFT STATION UPGRADES

# CITY OF MADISON DANE COUNTY, WISCONSIN



#### LOCATION OF PROPOSED LIFT STATION



SITE ADDRESS: 3402 HARPER RD. MADISON, DANE COUNTY, WI 53704



## SHEET INDEX

- G-1 TITLE SHEET
- G-2 LEGEND, SYMBOLS AND ABBREVIATIONS

#### **GENERAL**

GENERAL

- C-1 EXISTING SITE PLAN
- C-2 PROPOSED SITE PLAN
- C-3 CIVIL DETAILS
- C-4 CIVIL DETAILS

#### **MECHANICAI**

- M-1 EXISTING PUMP STATION REMOVAL PLAN
- M-2 PROPOSED LIFT STATION PLAN
- M-3 PROPOSED LIFT STATION SECTIONS

- E-1 ELECTRICAL SYMBOLS AND ABBREVIATIONS NO.1 E-2 ELECTRICAL SYMBOLS AND ABBREVIATIONS NO.2
- E-3 ELECTRICAL SITE PLAN EXISTING
- E-4 ELECTRICAL SITE PLAN PROPOSED
- E-6 LIFT STATION P&ID F-7 SCADA OVERVIEW
- E-8 LIFT STATION PANEL LAYOUT
- E-10 LIFT STATION ELECTRICAL DETAILS NO.1
- E-11 LIFT STATION ELECTRICAL DETAILS NO.2
- E-12 LIFT STATION ELECTRICAL DETAILS NO.3

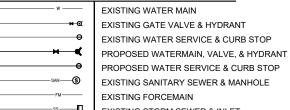
Dial (iii) or (800) 242-8511

www.DiggersHotline.com

UTILITY LOCATIONS SHOWN ON PLANS ARE APPROXIMATE AND CONTRACTOR

SHALL HAVE APPROPRIATE UTILITY MARK EXACT LOCATIONS PRIOR TO

# \_EGEND



- **EXISTING STORM SEWER & INLET**
- PROPOSED STORM SEWER & INLET
- PROPOSED SANITARY MANHOLE & SEWER MAIN
- PROPOSED FORCE MAIN
- PROPOSED BURIED ELECTRIC
- **BURIED ELECTRIC**
- PROPOSED BURIED GAS
- **BURIED GAS & VALVE BURIED CABLE TELEVISION**
- **BURIED TELEPHONE**
- **BURIED FIBER OPTICS**
- OVERHEAD UTILITY
- EXISTING SIDEWALK

RIGHT-OF-WAY

PROPERTY LINE

CONTROL POINT

UTILITY POLE & GUY

BENCHMARK

IRON ROD

HYDRANT

BASELINE

- PROPOSED SIDEWALK
- EXISTING CULVERT PIPE
- PROPOSED CULVERT PIPE
- FENCE LINE SILT FENCE

# $\alpha$

- SOIL BORING LIGHT POLE PEDESTAL STREET SIGN TREE - DECIDUOUS ② TREE - CONIFEROUS × TREE TO BE REMOVED

# UTILITIES

MADISON GAS & ELECTRIC COMPANY 133 S. BLAIR STREET MADISON, WI 53701 CONTACT: SHAUN ENDRES SENDRES@MGE.COM

#### ELECTRIC:

ALLIANT ENERGY 4902 NORTH BILTMORE LANE MADISON WI 53713 CONTACT: MICHAEL BROLIN (608) 458-4871

TDS TELECOM 525 JUNCTION ROAD MADISON, WI 53717 CONTACT: JERRY MYERS

MADISON, WI 53718 CONTACT: TOM PAYNE TOM.PAYNE@CHARTERCOM.COM

MADISON METROPOLITAN SEWERAGE DISTRICT MADISON WI 53713 CONTACT: BRUCE BORELLI (608) 222-1201 BRUCEB@MADSEWER.ORG

CITY OF MADISON 119 E. OLIN AVENUE MADISON WI 53713 CONTACT: ADAM WIESERHOEFT (608) 266-9121 AWIEDERHORFT@MADISONWATER.ORG AFTER HOURS EMERGENCY: (608) 266-4665

CITY OF MADISON CITY - COUNTY BUILDING, ROOM 115 210 MARTIN LUTHER KING JR. BOULEVARD MADISON WI 53703 CONTACT: GREG FRIES (608) 267-1199 GFRIES@CITY OF MADISON.COM

MICHAELBROLIN@ALLIANTENERGY.COM

#### TELEPHONE & CATV:

JERRY MYERS@TDSTELECOM.COM

CHARTER COMMUNICATIONS 2701 DANIELS STREET

#### SANITARY SEWER:

### WATERMAIN:

## STORM SEWER:

GENERAL, SITE/CIVIL, PROCESS MECHANICAL

FI FCTRICAL



ENGINEERING | ARCHITECTURE | SURVEYING FUNDING | PLANNING | ENVIRONMENTAL 1702 Pankratz St Madison, WI 53704 (608) 242-7779 www.msa-ps.cor



00373105 HARPER RD. LIFT STATION UPGRADES CITY OF MADISON DANE COUNTY, WI

TITLE SHEET

00373105

#### **GENERAL NOTES**

- A. SEE GENERAL NOTES ON G-1.
- B. SEE ELECTRICAL PLANS FOR ADDITIONAL SITE INFORMATION.
- C. ALL DISTURBED GRASS AREAS SHALL BE RESTORED W/ 6" TOPSOIL, SEE, FERTILIZER, AND EROSION MAT TO MATCH EXISTING GRADES.
- ALL DISTURBED PAVEMENT SHALL BE SAWCUT, REMOVED, AND RESTORED PER INCLUDED DETAILS. FINAL SAWCUT LIMITS SHALL BE NEAT, STRAIGHT, AND REQUIRE APPROVAL BY OWNER OR ENGINEER PRIOR TO PAVEMENT REMOVAL DISTURBED PAVEMENT MARKINGS SHALL BE REPLACED PER MADISON STANDARD
- E. SEE EROSION CONTROL DETAILS ON C-4 FOR EROSION CONTROL REQUIREMENTS. THE METHODS AND STRUCTURES USED TO CONTROL EROSION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

# KEY NOTES: #

- CORE EXISTING SEWER ACCESS STRUCTURE (SAS) FOR NEW SAN. CONNECTION SEE B/M-3. COORDINATE WITH CONSTRUCTION PHASING TO SWITCH FLOW TO PROPOSED LIFT STATION.
- FORCEMAIN PIPING SHALL BE REINFORCED SEE SPECS. COORDINATE CONSTRUCTION PHASING WITH EXISTING PUMP STATION REMOVALS. SEE GENERAL NOTES.
- GENERAL NOTES.

  M.J. ELBOW W/ JOINT RESTRAINTS AND THRUST BLOCKING SEE DETAIL 3/C-3.

  M.J. REDUCER W/ JOINT RESTRAINTS AND THRUST BLOCKING. TRANSITION FROM D.I. TO SDR 17 HDPE SEE DETAIL 3/C-3.

  EPPLACE EXISTING 4" C.I. FORCEMAIN WITH 6" SDR 17 HPDE

- STANDBY GENERATOR MOUNTED ON CONCRETE PAD SEE ELECTRICAL. CLEAR AND GRUB AS NECESSARY TO INSTALL GENERATOR & FENCE. CONTRACTOR TO MINIMIZE CLEARING AND GRUBBING TO EXTENT POSSIBLE. (TRIMMING CONSIDERED INCLUSIVE).
- COORDINATE GAS METER, SERVICE LOCATION, AND SIZE WITH GAS UTILITY. PROVIDE 4" THICK CONCRETE PAD BELOW.
- FENCING SHALL BE ALUMINUM FIXED LOUVER FENCE W/ PERSONNEL GATE OPENING OF 48-IN MIN. FENCE SHALL BE A MINIMUM OF 1' TALLER THAN THE TOP OF THE GENERATOR. FENCE SHALL BE AMETCO MANUFACTURING CORP., OR EQUAL. CONTRACTOR SHALL SUBMIT CATALOG CUTS FOR REVIEW AND SELECTION OF STYLE AND COLOR BY ENGINEER. COORDINATE FENCING DIMENSIONS WITH GENERATOR DIMENSIONS AND GENERATOR CLEARANCE -SEE ELECTRICAL.
- SEE MECHANICAL FOR CONCRETE PAD SECTION AND ELEVATIONS
- PROTECT LIFT STATION STRUCTURE W/ BOLLARDS SEE DETAIL 5/C-3
   PREFABRICATED LIFT STATION SEE MECHANICAL FOR DETAILS AND SECTIONS.
- 12. 8" SDR26 PVC. COORDINATE INVERT ELEVATIONS WITH EXISTING AND PROPOSED STRUCTURES. SEE MECHANICAL.



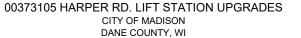
**EXISTING SITE - PERSPECTIVE** 

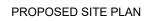
DESIGNED BY: Init



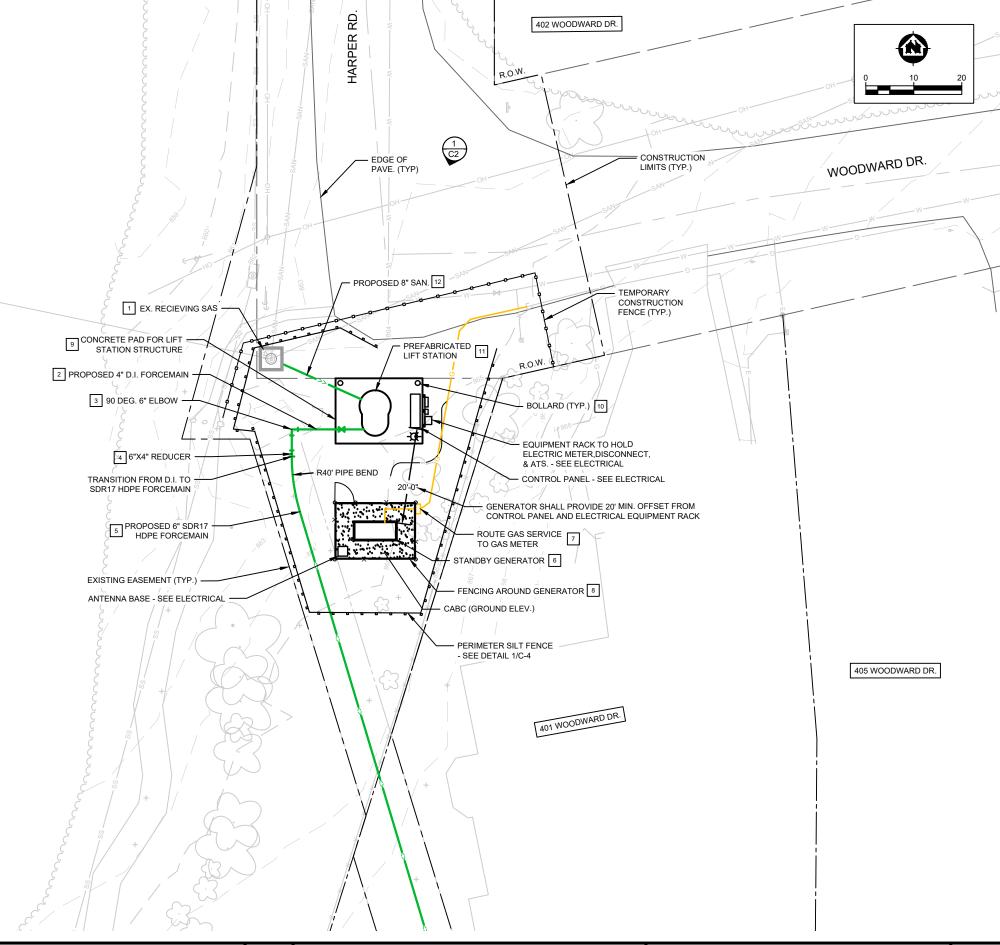


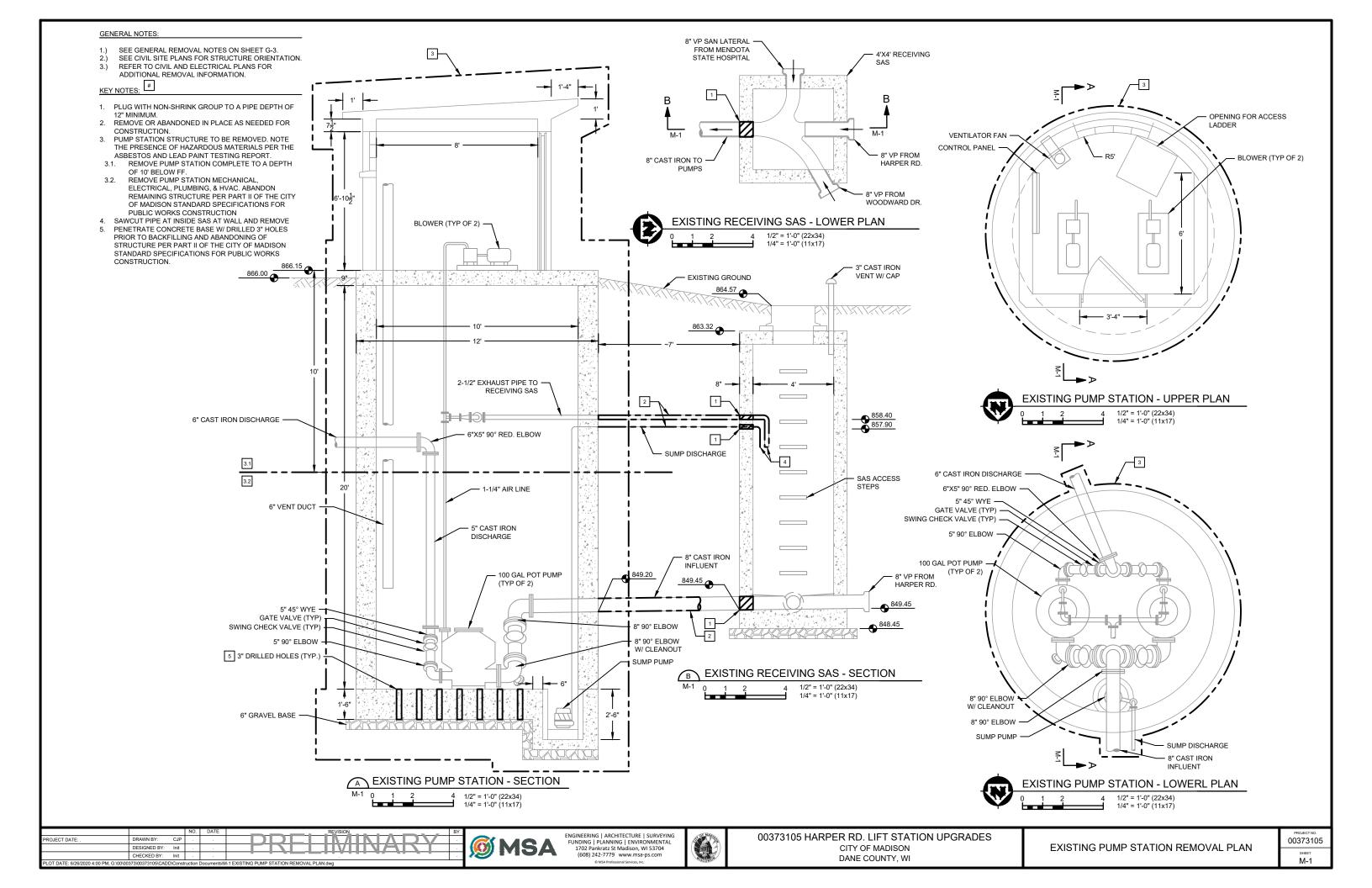






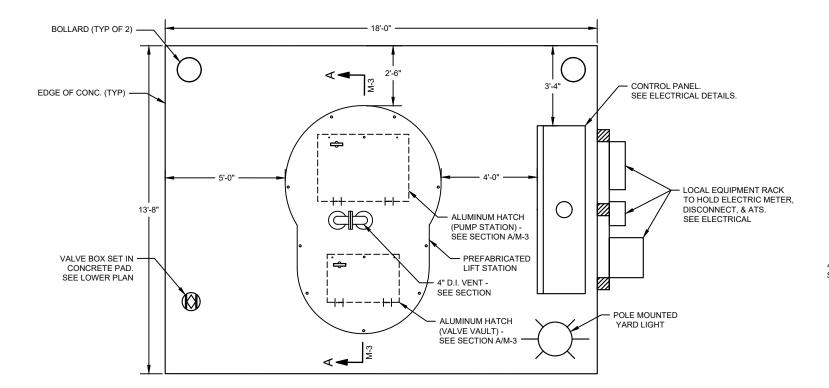
00373105

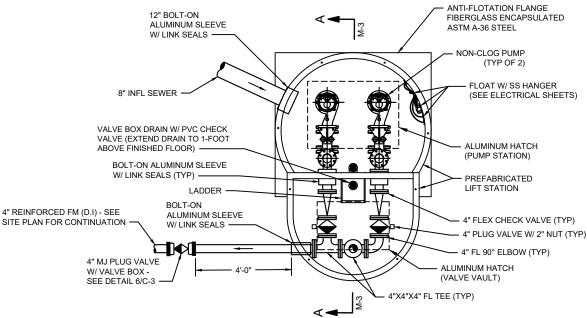




- ALL EXPOSED PIPING AND VALVES SHALL BE EPOXY COATED. THE COLOR SHALL BE LIGHT GRAY.
- ALL BURIED PIPING SHALL HAVE RESTRAINED JOINTS.
- ALL FITTINGS SHALL BE RESTRAINED MECHANICALLY BY MEGA-LUG OR EQUAL
- ALL BACKFILL SHALL BE GRANULAR AND STRUCTURALLY STABLE, COMPACTED, AND TESTED TO 95% MODIFIED
- EXTEND HATCH DRAINS TO FLOOR. (NOT SHOWN)
  ALL ELECTRICAL REF SHALL BE COORDINATED WITH ELECTRICAL SHEETS.
- HORIZONTAL DIMENSIONS FOR EXCAVATION OF STRUCTURES SHALL BE A MINIMUM OF 5 FEET LARGER THAN THE OUTSIDE WALL PLAN DIMENSIONS. ALL STRUCTURES SHALL BE EXCAVATED DOWN TO THE UNDERLYING MATERIAL. CONSTRUCTION SHALL BEGIN WITH THOROUGHLY COMPACTING THE EXISTING SOILS.
- SEE CIVIL, EROSION CONTROL, AND ELECTRICAL DETAILS FOR ADDITIONAL INFORMATION
- ACCEPTABLE BACKFILL MATERIAL FOR THE PROPOSED LIFT STATION SHALL BE CLEAN, WELL GRANULATED, FREE FLOWING, NON CORROSIVE AND INERT. IT SHALL BE FREE OF ICE, SNOW, DEBRIS, ROCK, ORGANIC MATERIAL, ALL OF WHICH COULD DAMAGE THE TANK AND INTERFERE WITH THE COMPACTION OF THE BACKFILL MATERIAL. THE LARGEST PARTICLES SHALL NOT BE LARGER THAN 3/4". NOT MORE THAN 3% (BY WEIGHT) SHALL PASS THROUGH A
- #8 SIEVE, AND THE BACKFILL MATERIAL SHALL CONFORM TO ASTM C-33, PARAGRAPH 9.1 REQUIREMENTS.

  ACCEPTABLE BACKFILL MATERIAL FOR THE PROPOSED LIFT STATION SHALL INCLUDE PEA GRAVEL. (NATURALLY ROUNDED PARTICLES WITH A MINIMUM DIAMETER OF 1/8" AND MAXIMUM DIAMETER OF 3/4") OR CRUSHED ROCK (WASHED FREE-FLOWING ANGULAR PARTICLES BETWEEN 1/8" AND 1/2" IN SIZE).
- COMPACTED BACKFILL FOR PROPOSED LIFT STATION SHALL BE PLACED IN 12" LIFTS AND COMPACTED TO A MINIMUM OF 700 LBS. PER SQUARE FOOT. COMPACTED BACKFILL SHALL BE 12" MINIMUM HORIZONTAL DISTANCE FROM OUTSIDE WALL OF LIFT STATION.
- 12.) COORDINATE SIZE & LOCATION OF HATCHES W/ EQUIPMENT VENDOR













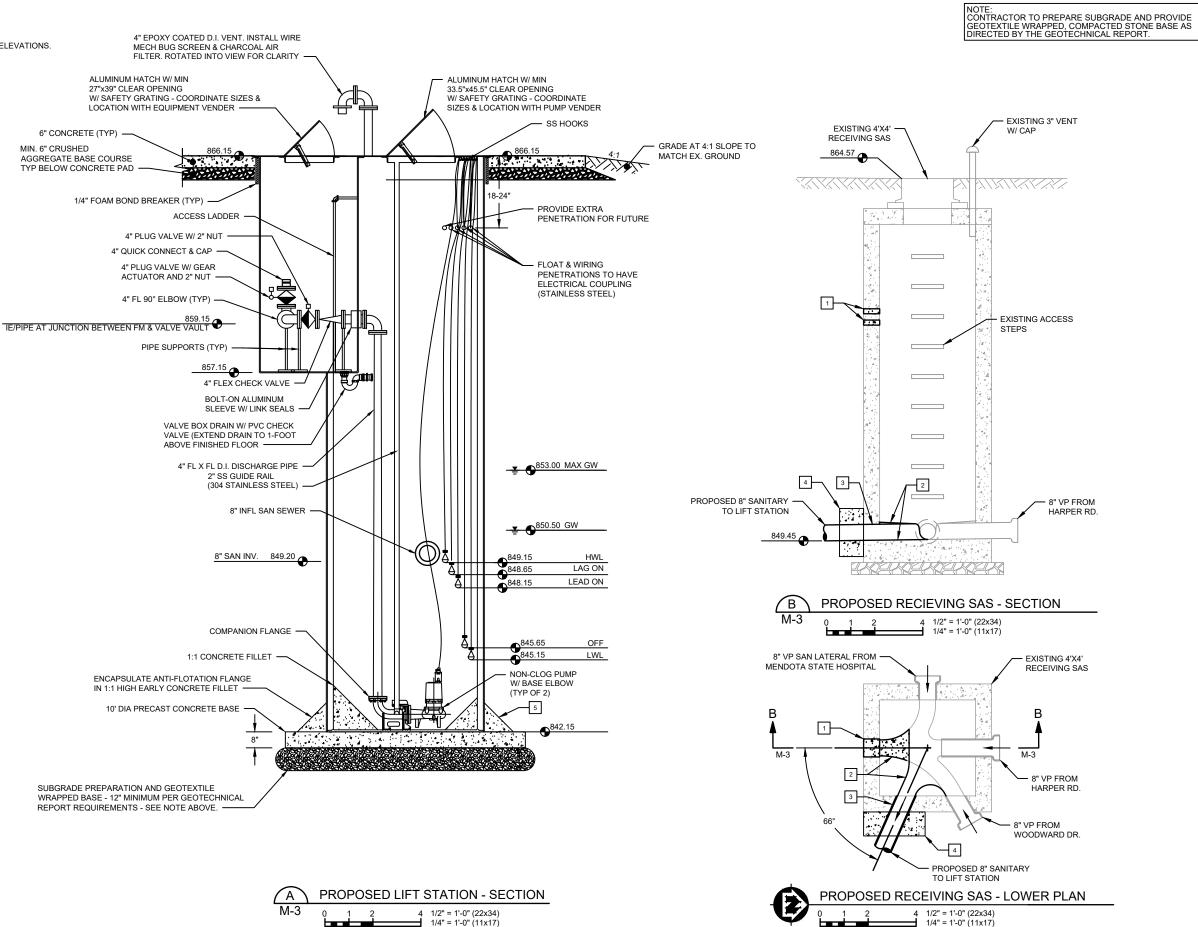




KEY NOTES: #

SEE GENERAL NOTES ON SHEET M-2.

- SEE CIVIL SITE PLANS FOR STRUCTURE ORIENTATION.
- REFER TO REMOVAL PLAN FOR ADDITIONAL EXISTING ELEVATIONS
- PLUG WITH NON-SHRINK GROUP TO A PIPE DEPTH OF 12" MINIMUM. SEE REMOVAL PLAN.
- 2. SAWCUT AND FORM NEW CHANNEL BOTTOM WITH
- CORE DRILL WALL FOR 8" SANITARY, FORM CHANNEL FLUSH TO INVERT. SEAL AROUND PIPE WITH MODULAR MECHANICAL RUBBER SEALS. VERIFY EXACT LOCATION
- 4. CONCRETE COLLAR USING HIGH EARLY CONCRETE SEE DETAIL 7/C-4.
- 5. ANCHOR PREFABRICATED LIFT STATION TO CONCRETE BASE PER MANUFACTURER'S RECOMMENDATIONS.







ENGINEERING | ARCHITECTURE | SURVEYING FUNDING | PLANNING | ENVIRONMENTAL 1702 Pankratz St Madison, WI 53704 (608) 242-7779 www.msa-ps.com



00373105 HARPER RD. LIFT STATION UPGRADES CITY OF MADISON DANE COUNTY, WI

PROPOSED PUMP STATION SECTIONS