

MAIN LIFT STATION IMPROVEMENTS

Cottonwood, Minnesota

Presented by:
CITY OF COTTONWOOD
 LYON COUNTY

Client
CITY OF COTTONWOOD

COTTONWOOD, MN

Project
MAIN LIFT STATION IMPROVEMENTS

Location
COTTONWOOD, MN



Certification

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly licensed professional ENGINEER under the laws of the state of Minnesota.

RICHARD R. TUBESING
 Registration No. 16981 Date: Feb 24, 2020
 If applicable, contact us for a wet signed copy of this plan which is available upon request at Sambatek's, Minnetonka, MN office.

Summary

Designed: RRT Drawn: JJG
 Approved: RRT Book / Page:
 Phase: Initial Issue: MM/DD/YYYY

Revision History

No. Date By Submittal / Revision

Sheet Title

TITLE

Sheet No. Revision

G101

Project No. 07-456.03



UTILITY & GOVERNING AGENCIES CONTACT LIST:

GAS COMPANY
 MINNESOTA ENERGY RESOURCES
 2685 145TH ST W
 ROSEMOUNT, MN 55068
 EMERGENCY TEL. 800-889-4970
 CUSTOMER SERVICE. 800-889-9508

TELEPHONE COMPANY
 FRONTIER COMMUNICATIONS
 16690 CEDAR AVE.
 ROSEMOUNT, MN 55068
 TEL. 800-921-8101

ELECTRIC COMPANY
 XCEL ENERGY
 TEL. 800-628-2121
 OUTAGE TEL. 800-895-1999

UTILITY LOCATION
 MINNESOTA
 GOPHER STATE ONE CALL
 (800) 252-1166

CONSULTANT CONTACT LIST:

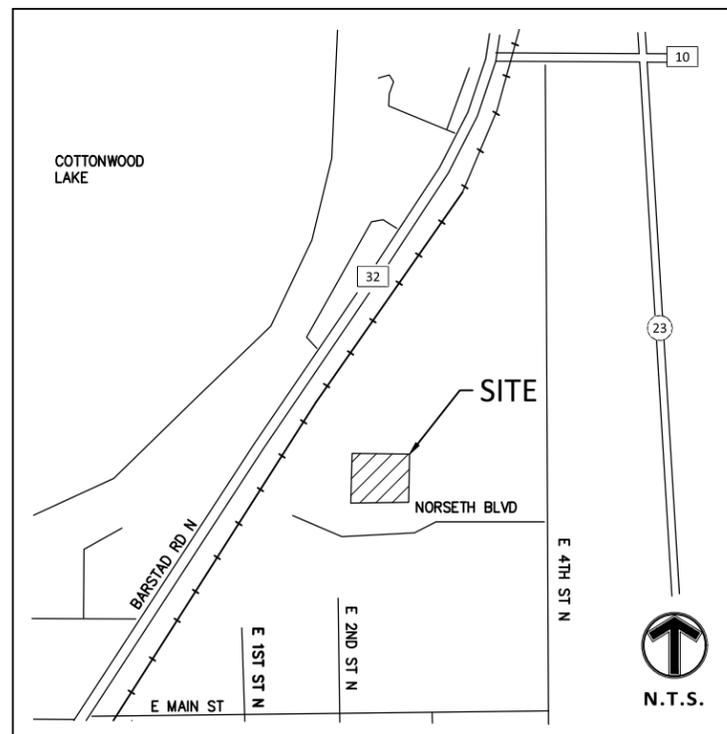
OWNER
 CITY OF COTTONWOOD
 W 1ST ST & E PRAIRIE ST
 COTTONWOOD, MN 56229
 TEL: 507-423-6488
 EMAIL:
 CONTACT:

CIVIL ENGINEER
 SAMBATEK
 12800 WHITEWATER DRIVE, SUITE 300
 MINNETONKA, MN 55343
 TEL 763-476-6010
 EMAIL DTUBESING@SAMBATEK.COM
 CONTACT: DICK TUBESING, PE

ELECTRICAL
 BARR ENGINEERING
 TEL 952-832-2979
 EMAIL SSTEPHENS@BARR.COM
 CONTACT: STUART S. STEPHENS, PE

SURVEYOR
 BUELTEL-MOESING LAND SURVEYING, INC
 902 WEST COLLEGE DR, P.O. BOX 32
 MARSHALL, MN 56258
 TEL 507-532-9043
 EMAIL DAN@BMSURVEYS.COM
 CONTACT: DANIEL L. BUELTEL, PLS

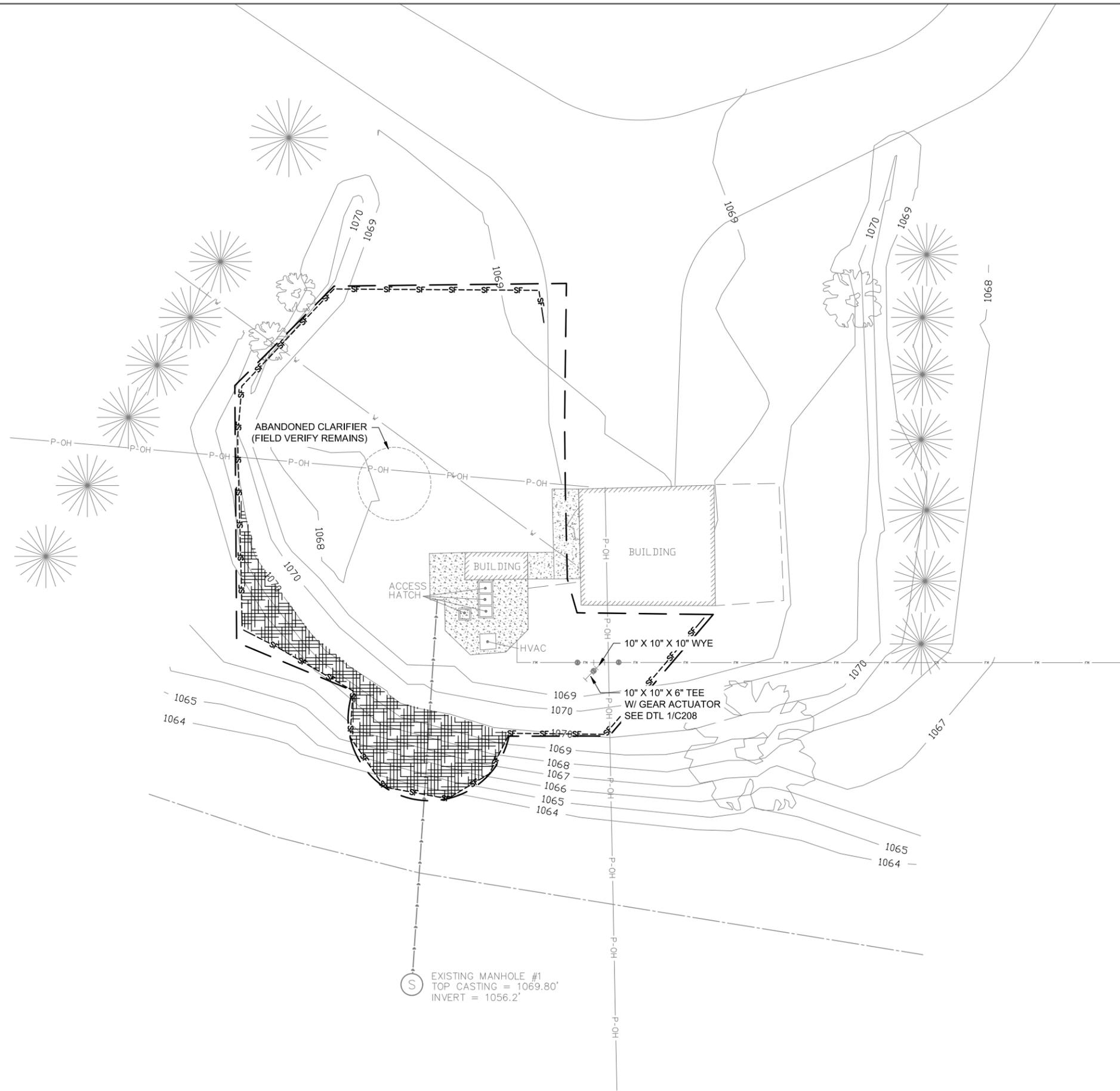
GEOTECHNICAL
 AMERICAN ENGINEERING TESTING
 1603 HALBUR RD
 MARSHALL, MN 56258
 TEL. 507-530-4297
 CONTACT: THOMAS JAMES



VICINITY MAP
 NO SCALE

SHEET INDEX	
SHEET	DESCRIPTION
G101	TITLE
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C202	DEMOLITION
C203	SEWER PLAN & PROFILE
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C205	EXISTING LIFT STATION DEMOLITION
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NORTH

0 10 20

SCALE IN FEET

EXISTING SITE LEGEND

- SANITARY SEWER MANHOLE
- CHAIN LINK
- BURIED ELECTRIC
- OVERHEAD POEWR LINE
- SANITARY SEWER
- FORCE MAIN
- WATER LINE
- VALVE
- CONIFEROUS TREE
- DECIDUOUS TREE

EROSION CONTROL LEGEND

- SILT FENCE
- CONSTRUCTION LIMITS
- EROSION CONTROL BLANKET (CATEGORY 4)

EROSION CONTROL NOTES

1. CONSTRUCTION SHALL COMPLY WITH ALL APPLICABLE GOVERNING CODES AND BE CONSTRUCTED TO SAME. WHERE A CONFLICT EXISTS BETWEEN LOCAL JURISDICTIONAL STANDARD SPECIFICATIONS AND SAMBATEK STANDARD SPECIFICATIONS, THE MORE STRINGENT SPECIFICATION SHALL APPLY.
2. BMP'S AND CONTROLS SHALL CONFORM TO FEDERAL, STATE, OR LOCAL REQUIREMENTS OR MANUAL OF PRACTICE, AS APPLICABLE. CONTRACTOR SHALL IMPLEMENT ADDITIONAL CONTROLS AS DIRECTED BY PERMITTING AGENCY OR OWNER.
3. TEMPORARY SOIL STOCKPILES MUST HAVE SILT FENCE OR OTHER EFFECTIVE SEDIMENT CONTROLS & CANNOT BE PLACED IN SURFACE WATERS, INCLUDING STORMWATER CONVEYANCES SUCH AS CURB & GUTTER SYSTEMS OR CONDUITS & DITCHES.
4. ALL CONSTRUCTION SHALL BE STABILIZED AT THE END OF EACH WORKING DAY, THIS INCLUDES BACKFILLING OF TRENCHES FOR UTILITY CONSTRUCTION AND PLACEMENT OF GRAVEL OR BITUMINOUS PAVING FOR ROAD CONSTRUCTION.
5. ALL SILT FENCES MUST BE REPAIRED, REPLACED, OR SUPPLEMENTED WHEN THEY BECOME NONFUNCTIONAL OR THE SEDIMENT REACHES 1/2 OF THE HEIGHT OF THE FENCE. THESE REPAIRS MUST BE MADE WITHIN 24 HOURS OF DISCOVERY, OR AS SOON AS FIELD CONDITIONS ALLOW ACCESS.
6. SURFACE WATERS, INCLUDING DRAINAGE DITCHES AND CONVEYANCE SYSTEMS, MUST BE INSPECTED FOR EVIDENCE OF SEDIMENT BEING DEPOSITED BY EROSION. CONTRACTOR MUST REMOVE ALL DELTAS AND SEDIMENT DEPOSITED IN SURFACE WATERS, INCLUDING DRAINAGE WAYS, CATCH BASINS, AND OTHER DRAINAGE SYSTEMS, AND RESTABILIZE THE AREAS WHERE SEDIMENT REMOVAL RESULTS IN EXPOSED SOIL. THE REMOVAL AND STABILIZATION MUST TAKE PLACE WITHIN SEVEN (7) DAYS OF DISCOVERY UNLESS PRECLUDED BY LEGAL, REGULATORY, OR PHYSICAL ACCESS CONSTRAINTS. CONTRACTOR SHALL USE ALL REASONABLE EFFORTS TO OBTAIN ACCESS. IF PRECLUDED, REMOVAL AND STABILIZATION MUST TAKE PLACE WITHIN SEVEN (7) CALENDAR DAYS OF OBTAINING ACCESS. CONTRACTOR IS RESPONSIBLE FOR CONTACTING ALL LOCAL, REGIONAL, STATE AND FEDERAL AUTHORITIES AND RECEIVING ANY APPLICABLE PERMITS, PRIOR TO CONDUCTING ANY WORK.
7. CONSTRUCTION SITE VEHICLE EXIT LOCATIONS MUST BE INSPECTED FOR EVIDENCE OF OFF-SITE SEDIMENT TRACKING ONTO PAVED SURFACES. TRACKED SEDIMENT MUST BE REMOVED FROM ALL OFF-SITE PAVED SURFACES, WITHIN 24 HOURS OF DISCOVERY, OR IF APPLICABLE, WITHIN A SHORTER TIME TO COMPLY WITH PART 9.11-9.12 OF THE GENERAL PERMIT.
8. IF SEDIMENT ESCAPES THE CONSTRUCTION SITE, OFF-SITE ACCUMULATIONS OF SEDIMENT MUST BE REMOVED IN A MANNER AND AT A FREQUENCY SUFFICIENT TO MINIMIZE OFF-SITE IMPACTS (E.G., FUGITIVE SEDIMENT IN STREETS COULD BE WASHED INTO STORM SEWERS BY THE NEXT RAIN AND/OR POSE A SAFETY HAZARD TO USERS OF PUBLIC STREETS).

COORDINATES BASED ON
LYON COUNTY COORDINATE SYSTEM (1996 ADJ.)

ELEVATIONS BASED ON NAVD 1988 DATUM

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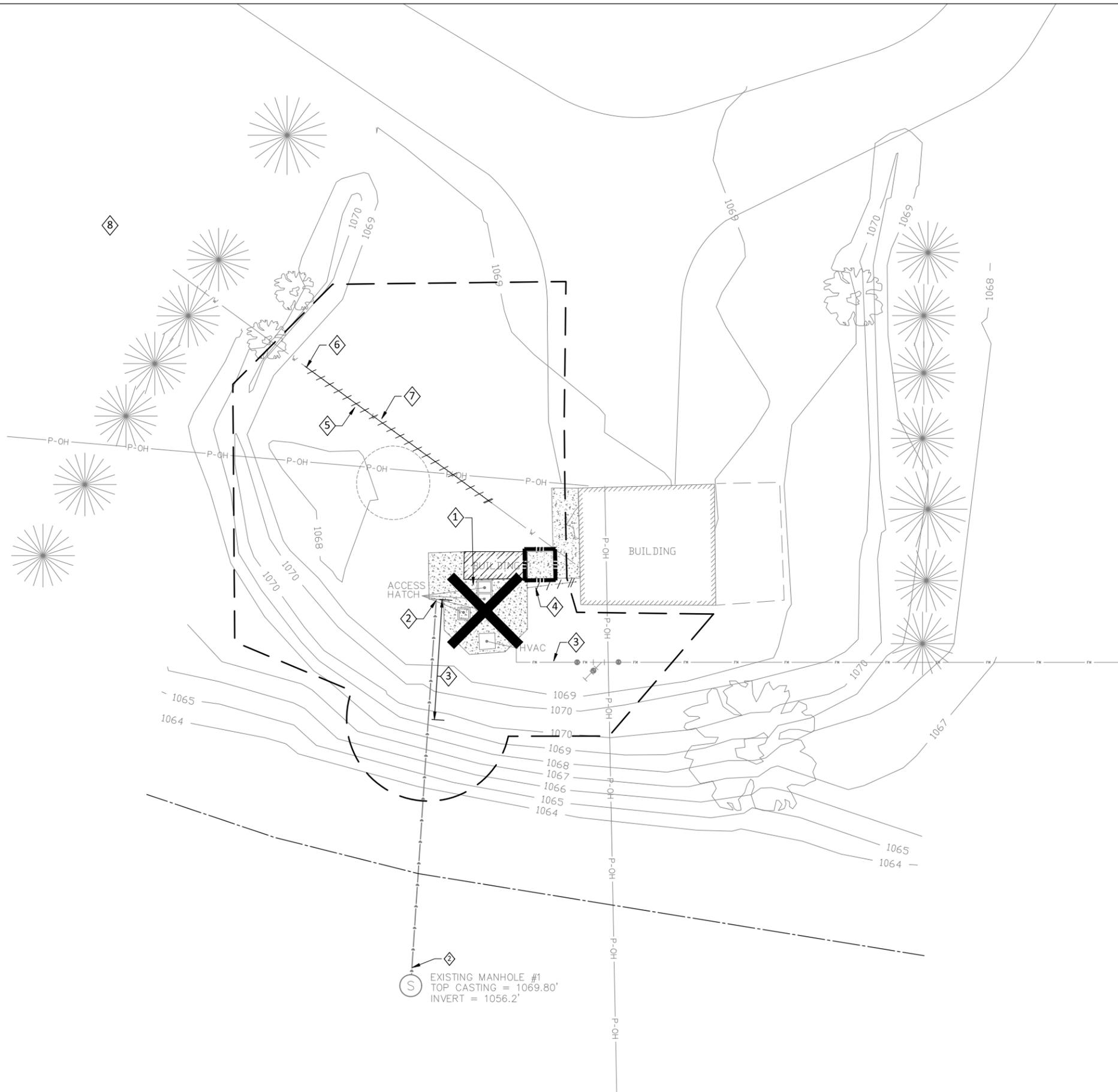
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Sheet Title
EXISTING SITE PLAN & EROSION CONTROL

Sheet No. Revision
C201

Project No. 07-456.03

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NORTH
0 10 20
SCALE IN FEET

SITE PLAN REMOVAL LEGEND

- REMOVE EXISTING UTILITY LINE
- REMOVE EXISTING CONCRETE
- REMOVE EXISTING BUILDING
- REMOVE EXISTING LIFT STATION
- CONSTRUCTION LIMITS

KEY NOTES

- 1 REMOVE EXISTING LIFT STATION WALLS, SEE SHEET C205 FOR DETAILS.
- 2 PLUG END OF PIPE WITH CONCRETE
- 3 ABANDON IN PLACE
- 4 REMOVE EXISTING SERVICE TO BUILDING AND PLUG WITH CONCRETE
- 5 REMOVE EXISTING WATER LINE SEE SHEET C203
- 6 PLUG WATER MAIN AND ABANDON IN PLACE
- 7 PROVIDE TEMPORARY WATER TO BUILDING
- 8 VERIFY WITH CITY USE OF CURB STOP

SITE PLAN REMOVAL NOTES

1. DEMOLITION NOTES ARE NOT COMPREHENSIVE. CONTRACTOR SHALL VISIT THE SITE PRIOR TO CONSTRUCTION TO OBTAIN A CLEAR UNDERSTANDING OF THE INTENDED SCOPE OF WORK.
2. THE DESIGN SHOWN IS BASED ON ENGINEER'S UNDERSTANDING OF EXISTING CONDITIONS. THE EXISTING CONDITIONS SHOWN ON THIS PLAN ARE BASED UPON ALTA AND TOPOGRAPHIC MAPPING PREPARED BY BUELTEL-MOSENG LAND SURVEYING DATED 01-30-2020. IF CONTRACTOR DOES NOT ACCEPT EXISTING TOPOGRAPHY AS SHOWN ON THE PLANS WITHOUT EXCEPTION, CONTRACTOR SHALL HAVE MADE, AT OWN EXPENSE, A TOPOGRAPHIC SURVEY BY A REGISTERED LAND SURVEYOR AND SUBMIT IT TO THE OWNER FOR REVIEW.
3. THE CONTRACTOR IS RESPONSIBLE FOR DEMOLITION, REMOVAL, AND DISPOSING IN A LOCATION APPROVED BY ALL GOVERNING AUTHORITIES AND IN ACCORDANCE WITH APPLICABLE CODES, OF ALL STRUCTURES, PADS, WALLS, FUMES, FOUNDATIONS, PARKING, DRIVES, DRAINAGE STRUCTURES, UTILITIES, ETC., SUCH THAT THE IMPROVEMENTS SHOWN ON THE PLANS CAN BE CONSTRUCTED. ALL FACILITIES TO BE REMOVED SHALL BE UNDERCUT TO SUITABLE MATERIAL AND BROUGHT TO GRADE WITH SUITABLE COMPACTED FILL MATERIAL PER THE GEOTECHNICAL REPORT AND/OR GEOTECHNICAL ENGINEER.
4. CLEARING AND GRUBBING: CONTRACTOR IS RESPONSIBLE FOR REMOVING ALL DEBRIS FROM THE SITE AND DISPOSING THE DEBRIS IN A LAWFUL MANNER. CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS REQUIRED FOR DEMOLITION AND DISPOSAL.
6. CONTRACTOR IS RESPONSIBLE FOR THE DISCONNECTION OF UTILITY SERVICES TO EXISTING BUILDINGS PRIOR TO DEMOLITION OF THE BUILDINGS.
7. CONTRACTOR SHALL COORDINATE WITH RESPECTIVE UTILITY COMPANIES PRIOR TO REMOVAL AND/OR RELOCATION OF UTILITIES. CONTRACTOR SHALL COORDINATE WITH UTILITY COMPANIES CONCERNING PORTIONS OF WORK WHICH MAY BE PERFORMED BY THE UTILITY COMPANIES' FORCES AND ANY FEES WHICH ARE TO BE PAID TO UTILITY COMPANIES FOR SERVICES. CONTRACTOR IS RESPONSIBLE FOR PAYING ALL FEES AND CHARGES.
8. CONTRACTOR IS SPECIFICALLY CAUTIONED THAT LOCATIONS OF EXISTING UTILITIES SHOWN ON THIS PLAN HAVE BEEN DETERMINED FROM INFORMATION AVAILABLE. ENGINEER ASSUMES NO RESPONSIBILITY FOR THE UTILITY MAPPING ACCURACY. PRIOR TO START OF ANY DEMOLITION ACTIVITY, THE CONTRACTOR SHALL NOTIFY UTILITY COMPANIES 48 HOURS PRIOR TO ANY EXCAVATION FOR ON-SITE LOCATIONS OF EXISTING UTILITIES. THE LOCATIONS OF UTILITIES SHALL BE OBTAINED BY THE CONTRACTOR BY CALLING MINNESOTA GOPHER STATE ONE CALL AT 800-252-1166 OR 651-454-0002.
9. CONTRACTOR MUST PROTECT THE PUBLIC AT ALL TIMES WITH FENCING, BARRICADES, ENCLOSURES, ETC., TO THE BEST PRACTICES.
10. CONTINUOUS ACCESS SHALL BE MAINTAINED FOR THE SURROUNDING PROPERTIES AT ALL TIMES DURING DEMOLITION OF THE EXISTING FACILITIES.
11. PRIOR TO DEMOLITION OCCURRING, ALL EROSION CONTROL DEVICES ARE TO BE INSTALLED AND APPROVED BY THE LOCAL AUTHORITY.
12. CONTRACTOR SHALL LIMIT SAW-CUT & PAVEMENT REMOVAL TO ONLY THOSE AREAS WHERE IT IS REQUIRED AS SHOWN ON THESE CONSTRUCTION PLANS BUT IF ANY DAMAGE IS INCURRED ON ANY OF THE SURROUNDING PAVEMENT, ETC. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ITS REMOVAL AND REPAIR.
13. CONTRACTOR TO PROTECT EXISTING FEATURES WHICH ARE TO REMAIN. DAMAGE TO ANY EXISTING CONDITIONS TO REMAIN WILL BE REPLACED AT CONTRACTOR'S EXPENSE.
14. ABANDON OR REMOVE ALL SANITARY, WATER AND STORM SERVICES PER CITY STANDARDS. COORDINATE ALL WORK WITH CITY.

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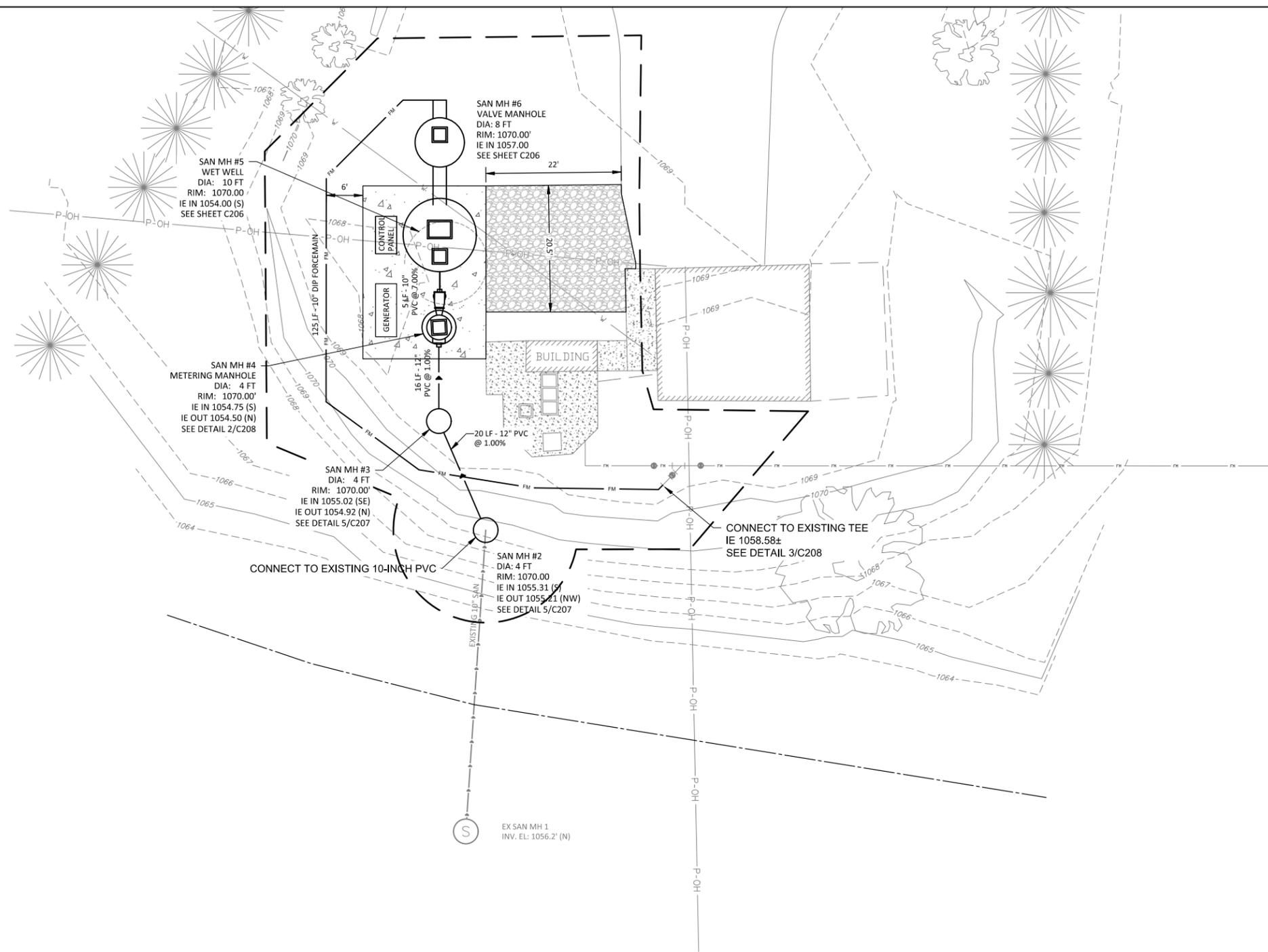
Sheet Title

DEMOLITION

Sheet No. Revision
C202

Project No. 07-456.03

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NORTH

0 10 20
SCALE IN FEET

SEWER PLAN & PROFILE LEGEND

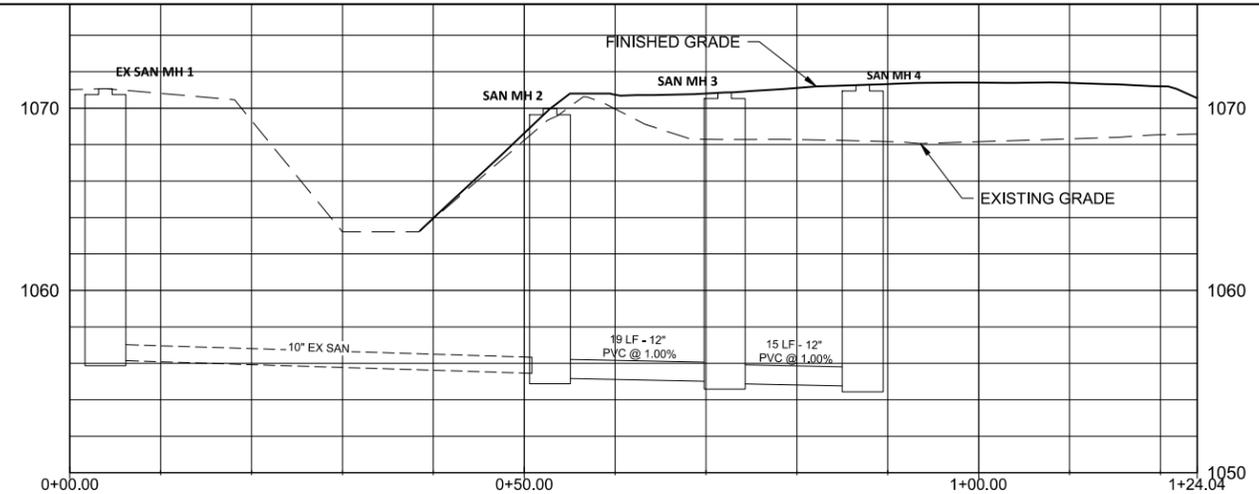
- SANITARY SEWER MANHOLE
- SANITARY SEWER
- FORCE MAIN
- WATER MAIN, 3/4 INCH
- CONCRETE, 10-INCH TYP
- GRAVEL DRIVEWAY, SEE DETAIL 7/C207
- CONSTRUCTION LIMITS

KEY NOTES

1. CONNECT TO EXISTING 4" SERVICE LINE FROM BUILDING APPROXIMATELY ELEVATION 1162.00. FIELD VERIFY.

SEWER PLAN & PROFILE NOTES

1. THE UTILITY IMPROVEMENTS FOR THIS PROJECT SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE "STANDARD UTILITIES SPECIFICATIONS" AS PUBLISHED BY THE CITY ENGINEERS ASSOCIATION OF MINNESOTA (CEAM), EXCEPT AS MODIFIED HEREIN. CONTRACTOR SHALL OBTAIN A COPY OF THESE SPECIFICATIONS.
 - 1.1. ALL UTILITIES SHALL BE CONSTRUCTED IN ACCORDANCE WITH CITY REQUIREMENTS.
 - 1.2. ALL MATERIALS SHALL BE AS SPECIFIED IN CEAM SPECIFICATIONS EXCEPT AS MODIFIED HEREIN.
 - 2.1. ALL MATERIALS SHALL COMPLY WITH THE REQUIREMENTS OF THE CITY.
 - 2.2. ALL SANITARY SEWER TO BE PVC SDR-26, UNLESS NOTED OTHERWISE.
 - 2.3. ALL FORCEMAIN TO BE DUCTILE IRON - CLASS 52, UNLESS NOTED OTHERWISE.
 - 2.3.1. PROVIDE THRUST BLOCKING AND MECHANICAL JOINT RESTRAINTS ON ALL FORCEMAIN JOINTS PER CITY STANDARDS.
 3. COORDINATE ALL BUILDING SERVICE CONNECTION LOCATIONS AND INVERT ELEVATIONS PRIOR TO CONSTRUCTION.
 4. ALL BUILDING SERVICE CONNECTIONS (STORM, SANITARY, WATER) WITH FIVE FEET OR LESS COVER ARE TO BE INSULATED FROM BUILDING TO POINT WHERE 5- FEET OF COVER IS ACHIEVED.
 5. CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO AVOID PROPERTY DAMAGE TO ADJACENT PROPERTIES DURING THE CONSTRUCTION PHASES OF THIS PROJECT. CONTRACTOR WILL BE HELD SOLELY RESPONSIBLE FOR ANY DAMAGES TO THE ADJACENT PROPERTIES OCCURRING DURING THE CONSTRUCTION PHASES OF THIS PROJECT.
 6. SAFETY NOTICE TO CONTRACTORS: IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONTRACTOR WILL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS ON THE JOB SITE, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS REQUIREMENT WILL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS. THE DUTY OF THE ENGINEER OR THE DEVELOPER TO CONDUCT CONSTRUCTION REVIEW OF CONTRACTOR'S PERFORMANCE IS NOT INTENDED TO INCLUDE REVIEW OF THE ADEQUACY OF CONTRACTOR'S SAFETY MEASURES IN, ON OR NEAR THE CONSTRUCTION SITE.
 7. ALL AREAS OUTSIDE THE PROPERTY BOUNDARIES THAT ARE DISTURBED BY UTILITY CONSTRUCTION SHALL BE RESTORED IN KIND. SODDED AREAS SHALL BE RESTORED WITH 6 INCHES OF TOPSOIL PLACED BENEATH THE SOD.
 8. ALL SOILS TESTING SHALL BE COMPLETED BY AN INDEPENDENT SOILS ENGINEER. EXCAVATION FOR THE PURPOSE OF REMOVING UNSTABLE OR UNSUITABLE SOILS SHALL BE COMPLETED AS REQUIRED BY THE SOILS ENGINEER. THE UTILITY BACKFILL CONSTRUCTION SHALL COMPLY WITH THE REQUIREMENTS OF THE SOILS ENGINEER. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL REQUIRED SOILS TESTS AND SOIL INSPECTIONS WITH THE SOILS ENGINEER.
- A GEOTECHNICAL ENGINEERING REPORT HAS BEEN COMPLETED BY:
- COMPANY: _____ AMERICAN ENGINEERING TESTING _____
 ADDRESS: _____ 1603 HALBUR RD MARSHALL, MN 56258 _____
 PHONE: _____ 507-532-0771 _____
 DATED: _____
- CONTRACTOR SHALL OBTAIN A COPY OF THIS SOILS REPORT.
9. CONTRACTOR SHALL SUBMIT 2 COPIES OF SHOP DRAWINGS FOR MANHOLE STRUCTURES TO ENGINEER. CONTRACTOR SHALL ALLOW 5 WORKING DAYS FOR SHOP DRAWING REVIEW.



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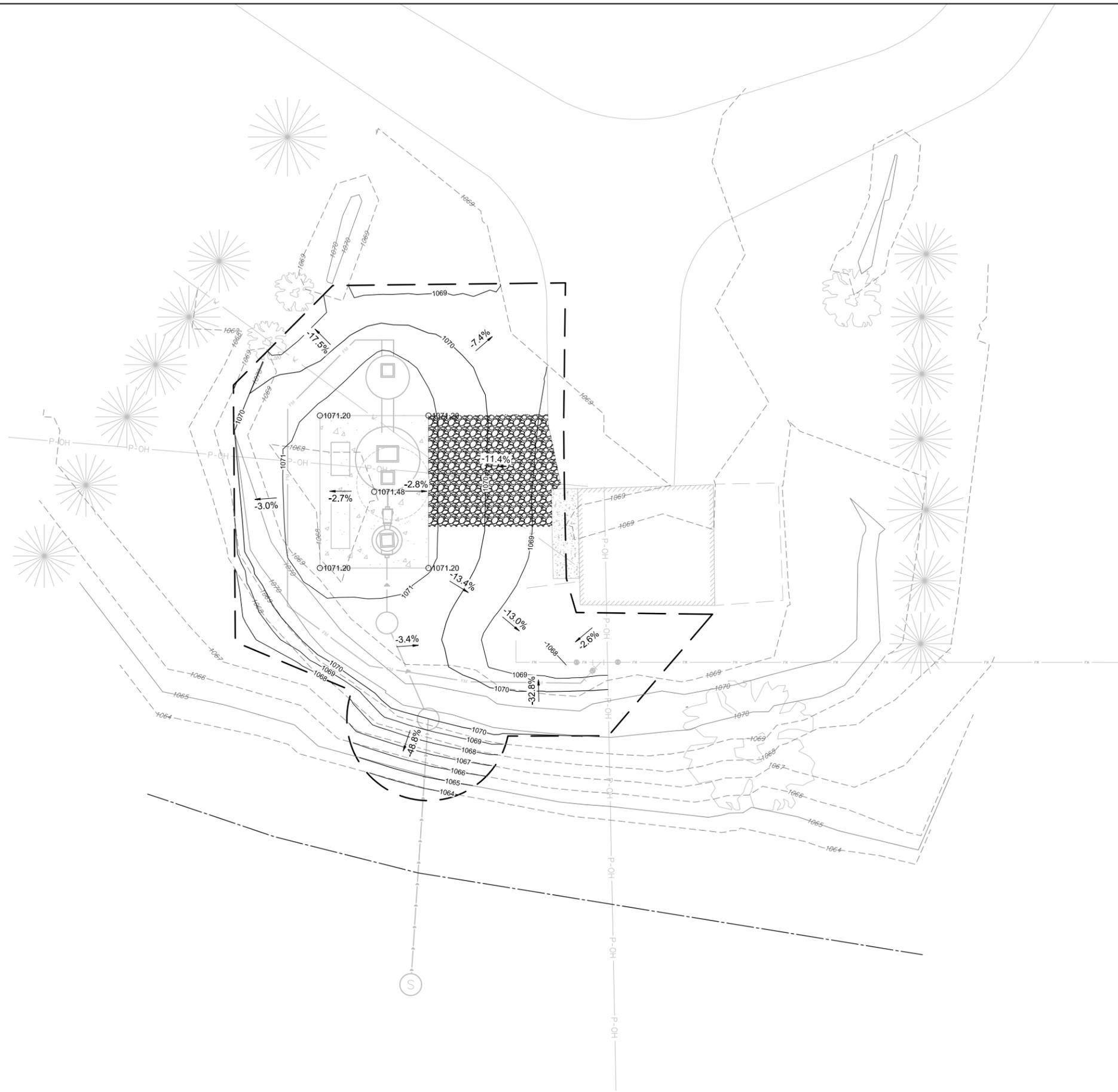
SEWER PLAN & PROFILE

Sheet No. Revision

C203

Project No. 07-456.03

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NORTH
SCALE 0 10 20
IN FEET

GRADING PLAN LEGEND

- PROPOSED CONTOURS
- EXISTING CONTOURS
- SPOT ELEVATION

GRADING PLAN NOTES

1. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND WHERE POSSIBLE, MEASUREMENTS TAKE IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANY AT LEAST 48 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS. THE LOCATIONS OF SMALL UTILITIES SHALL BE OBTAINED BY THE CONTRACTOR, BY CALLING GOPHER STATE ONE CALL AT 454-0002.
2. THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO AVOID PROPERTY DAMAGE TO ADJACENT PROPERTIES DURING THE CONSTRUCTION PHASES OF THIS PROJECT. THE CONTRACTOR WILL BE HELD SOLELY RESPONSIBLE FOR ANY DAMAGES TO THE ADJACENT PROPERTIES OCCURRING DURING THE CONSTRUCTION PHASES OF THIS PROJECT.
3. SAFETY NOTICE TO CONTRACTORS: IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES. THE CONTRACTOR WILL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS ON THE JOB SITE, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS REQUIREMENT WILL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS. THE DUTY OF THE ENGINEER TO CONDUCT CONSTRUCTION REVIEW OF THE CONTRACTOR'S PERFORMANCE IS NOT INTENDED TO INCLUDE REVIEW OF THE ADEQUACY OF THE CONTRACTOR'S SAFETY MEASURES IN, ON OR NEAR THE CONSTRUCTION SITE.
4. FIELD VERIFY ALL EXISTING PIPE LOCATIONS AND ELEVATIONS PRIOR TO CONSTRUCTION AND ADVISE IN ALL POTENTIAL CONFLICTS.

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GRADING
PLAN

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C204

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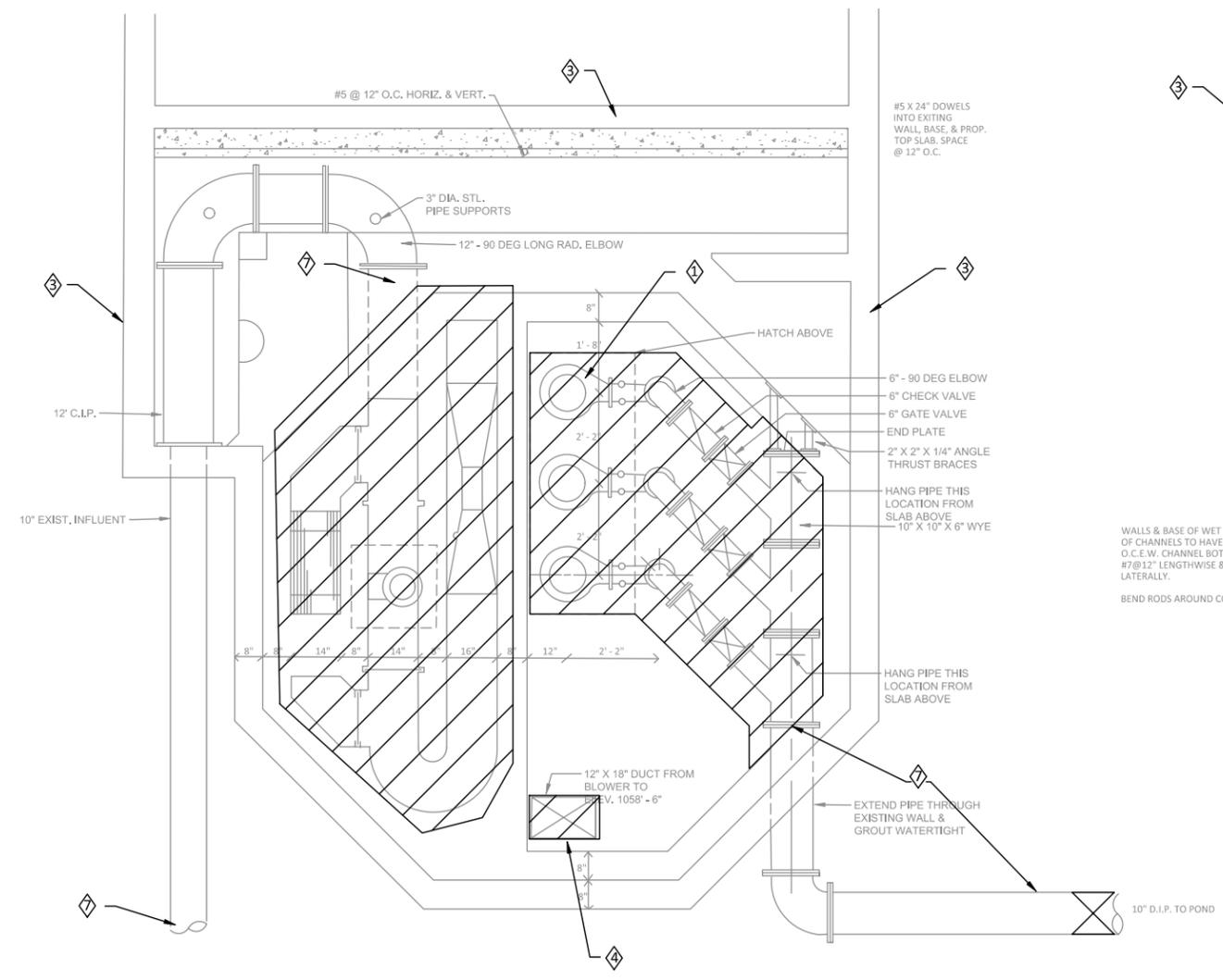
C205

Project No. 07-456.03

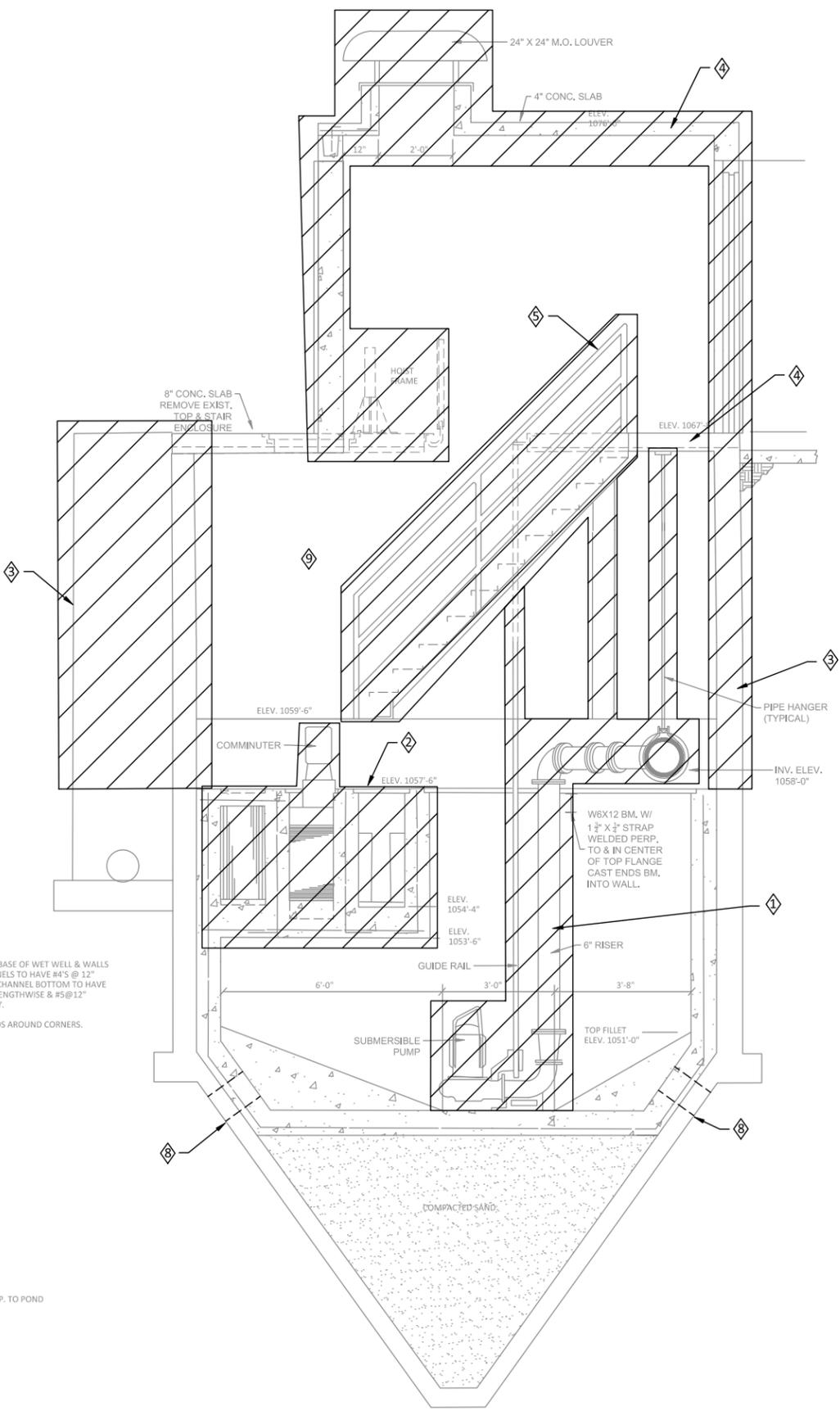
EXISTING LIFT STATION DEMOLITION NOTES

1. REMOVE ALL PUMPS, PIPING, VALVES, GUIDE WALLS AND APPURTENANCES FROM LIFT STATION.
2. REMOVE EXISTING FLUME CHANNELS.
3. REMOVE EXTERIOR WALL TO ELEVATION 1057'.
4. REMOVE ABOVE GRADE BUILDING, TOP SLAB, HATCHES, HVAC EQUIPMENT AND APPURTENANCES FROM STRUCTURE.
5. REMOVE BUILDING STAIRS.
6. REMOVE ALL ELECTRICAL IN LIFT STATION.
7. PLUG PIPE WITH CONCRETE.
8. CORE HOLE IN CONCRETE TO ALL DRAINAGE.
9. FILL WITH STRUCTURAL MATERIAL.

EXISTING LIFT STATION DEMOLITION LEGEND



WALLS & BASE OF WET WELL & WALLS OF CHANNELS TO HAVE #4'S @ 12" O.C.E.W. CHANNEL BOTTOM TO HAVE #7@12" LENGTHWISE & #5@12" LATERALLY.
BEND RODS AROUND CORNERS.



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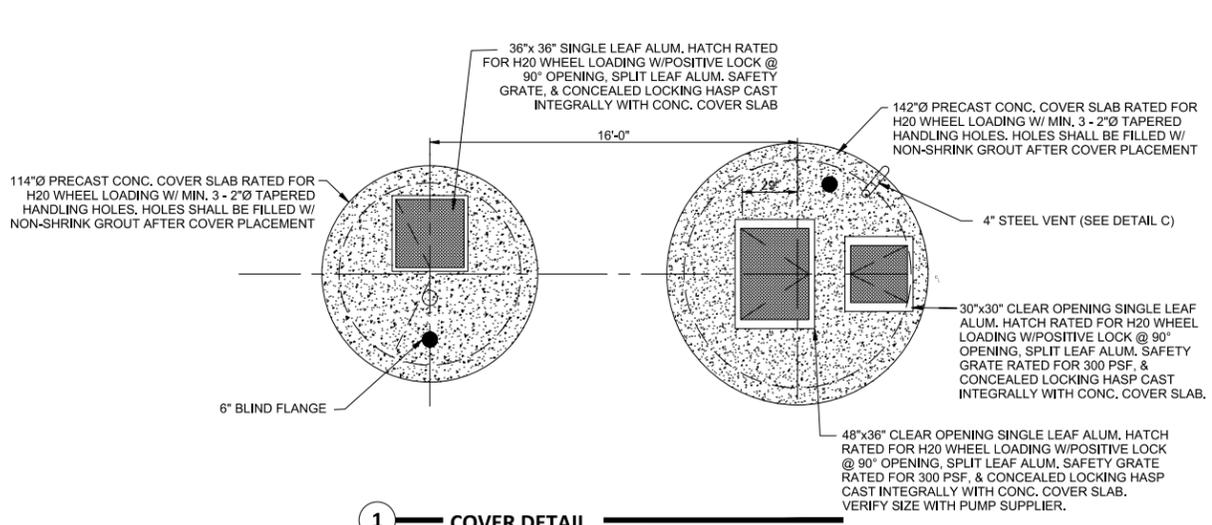
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PROPOSED LIFT STATION PLAN & SECTION

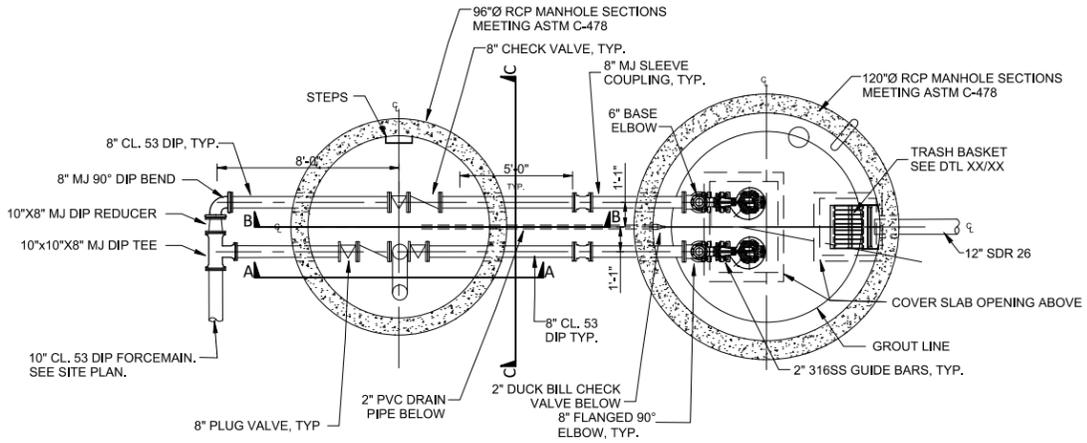
Sheet No. Revision

C206

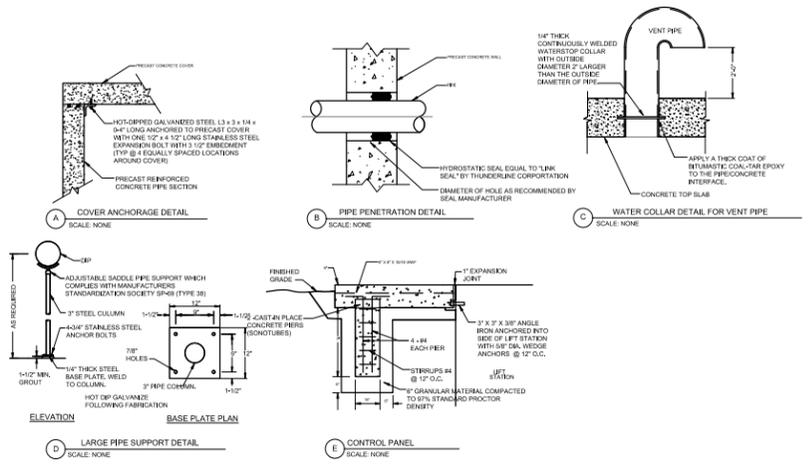
Project No. 07-456.03



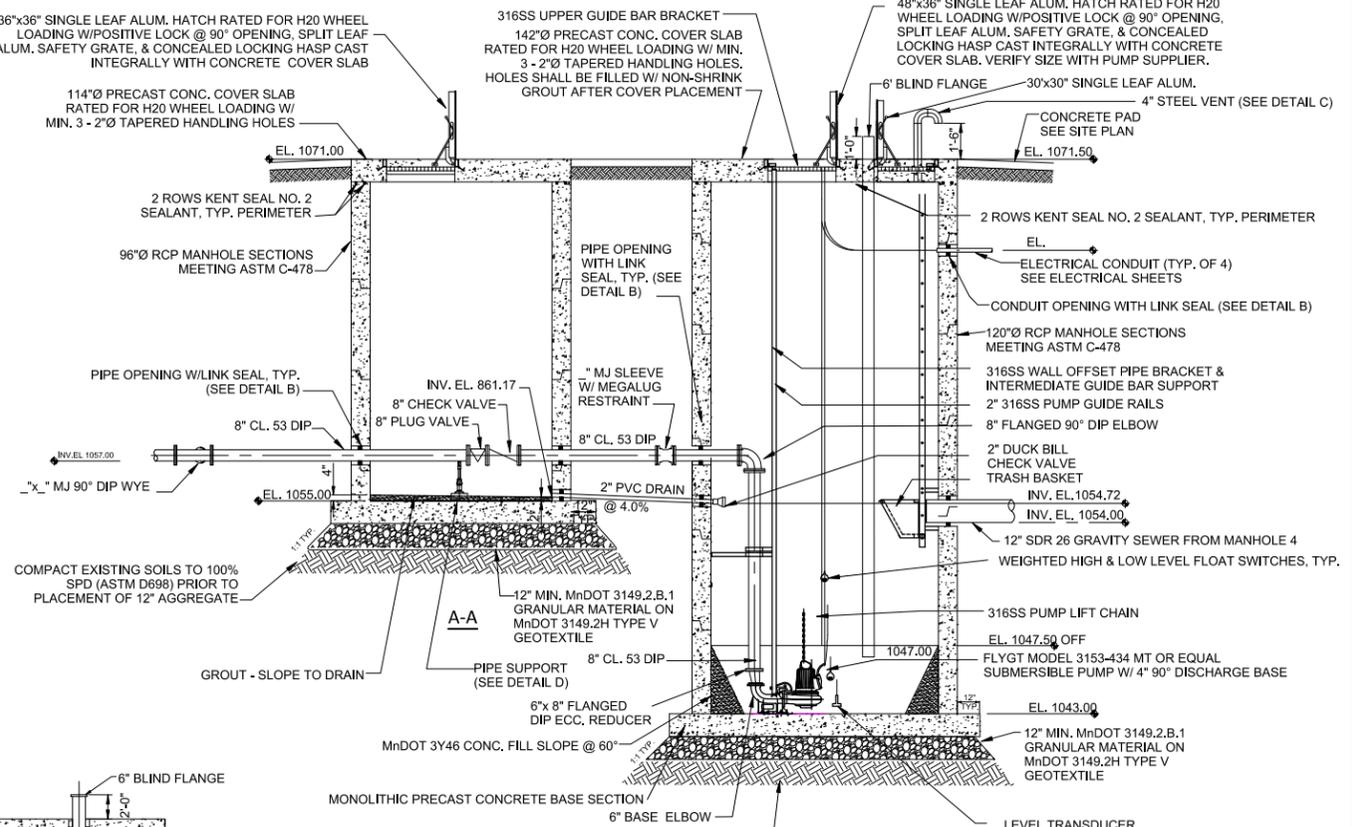
1 COVER DETAIL
N.T.S.



2 LIFT STATION PLAN
N.T.S.



3 LIFT STATION DETAILS
N.T.S.



4 LIFT STATION SECTION
N.T.S.

GENERAL NOTES

- ALL ANCHOR BOLTS AND FASTENERS SHALL BE 316 STAINLESS STEEL.
- ALL PIPING AND PIPE JOINTS SHALL BE PROPERLY RESTRAINED TO PREVENT EXCESS MOVEMENT IN ANY DIRECTION DURING OPERATION AND TESTING. PIPE SUPPORTS SHALL BE LOCATED IN FIELD.
- PAINT ALL EXPOSED DIP PIPING WITH TWO COATS OF BITUMASTIK PAINT, 300M
- PROVIDE EXTERNAL JOINT SEAL INFRASHIELD OR EQUAL ON ALL MANHOLE SECTION JOINTS.
- PLUG ALL LIFTING HOLES WITH NON SHRINK GROUT AND COVER WITH EXTERNAL JOINT SEAL, INFRASHIELD OR EQUAL.
- LOCATE INLET PIPE(S), VENT PIPE, AND ELECTRICAL CONDUITS AS REQUIRED PER SITE CONDITIONS.
- CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS PRIOR TO BIDDING.
- CLEAR OPENING OF ALUMINUM HATCHES SHALL BE SIZED APPROPRIATELY FOR REMOVAL OF PUMPS AND VALVES. PUMP SUPPLIER/MANUFACTURER TO CONFIRM HATCH SIZE.
- CONTRACTOR MAY PROVIDE ALTERNATE PIPE DESIGN. CALCULATIONS & DRAWINGS SHALL BE SUBMITTED TO THE ENGINEER FOR PRIOR REVIEW & APPROVAL.
- COAT PIPING IN WET WELL AND MANHOLE IN ACCORDANCE WITH SYSTEM 1-F, SECTION 09960.
- COAT WALLS OF WET WELL IN ACCORDANCE WITH SYSTEM 4-H, SECTION 09960.
- PROVIDE PIPE SUPPORT BRACKET TO WALL AT MIN 10'-0" SPACING.

DESCRIPTION	ELEVATION (FT.)
HIGH WATER ALARM	1053.50
PUMP 2 ON	1052.50
PUMP 1 ON	1051.50
PUMPS OFF	1047.50
LOW WATER ALARM	1046.50
(TO BE FIELD SET AFTER INSTALLATION)	

Client
CITY OF COTTONWOOD

COTTONWOOD, MN

Project
MAIN LIFT STATION IMPROVEMENTS

Location
COTTONWOOD, MN



Certification

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly licensed professional ENGINEER under the laws of the state of Minnesota.

Richard R. Tubesing

RICHARD R. TUBESING
Registration No. 16981 Date: Feb 24, 2020

If applicable, contact us for a wet signed copy of this plan which is available upon request at Sambatek's, Minnetonka, MN office.

Summary

Designed: RRT Drawn: JGG
Approved: RRT Book / Page:
Phase: Initial Issue: MM/DD/YYYY

Revision History

No. Date By Submittal / Revision

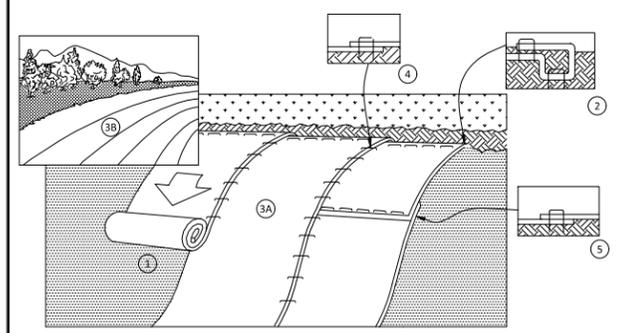
Sheet Title

DETAILS

Sheet No. Revision

C207

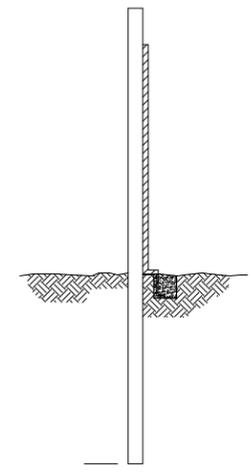
Project No. 07-456.03



1. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED.
2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET IN A 6" DEEP X 6" WIDE TRENCH WITH APPROXIMATELY 12" OF BLANKET EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE BLANKET WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" PORTION OF BLANKET BACK OVER SEED AND COMPACTED SOIL. SECURE BLANKET OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" APART ACROSS THE WIDTH OF THE BLANKET.
3. ROLL THE BLANKETS (A.) DOWN OR (B.) HORIZONTALLY ACROSS THE SLOPE. BLANKETS WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL BLANKETS MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS PER MANUFACTURERS RECOMMENDATION.
4. THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH APPROXIMATELY 4"-6" OVERLAP DEPENDING ON BLANKET TYPE. TO ENSURE PROPER SEAM ALIGNMENT, PLACE THE EDGE OF THE OVERLAPPING BLANKET (BLANKET BEING INSTALLED ON TOP) EVEN WITH THE SEAM STITCH ON THE PREVIOUSLY INSTALLED BLANKET.
5. CONSECUTIVE BLANKETS SPICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3" OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" APART ACROSS ENTIRE BLANKET WIDTH.
6. PLACE STAPLES/STAKES PER MANUFACTURE RECOMMENDATION FOR THE APPROPRIATE SLOPE BEING APPLIED.

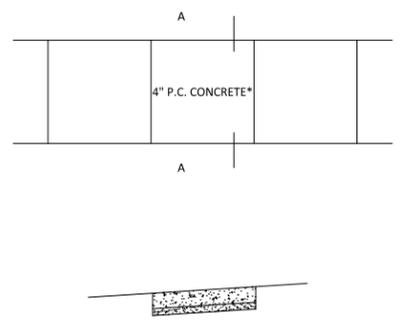
- NOTES:**
1. IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" MAY BE NECESSARY TO PROPERLY SECURE THE BLANKETS.
 2. FOLLOW EROSION CONTROL TECHNOLOGY COUNCIL SPECIFICATION FOR PRODUCT SELECTION

1 EROSION CONTROL BLANKET
N.T.S.



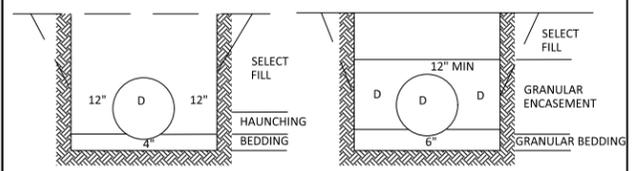
- NOTES:**
1. MAXIMUM SPACING BETWEEN POSTS (CENTER TO CENTER) SHALL NOT EXCEED 6 FEET IN SPACING.
 2. A MINIMUM OF 5 FASTENERS PER POST

2 PREASSEMBLED SILT FENCE- WOOD POSTS (MNDOT 3886)
N.T.S.



- GENERAL NOTES FOR CONCRETE CONSTRUCTION:**
1. THE CONCRETE SIDEWALKS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE REQUIREMENTS OF MN/DOT "STANDARD SPECIFICATIONS FOR CONSTRUCTION".
 2. SIDEWALK CONTROL JOINTS SHALL BE LOCATED AT 5 FEET ON CENTER. SIDEWALK EXPANSION JOINTS SHALL BE LOCATED AT A MAXIMUM OF 100 FEET ON CENTER, AND WHERE SIDEWALK ABUTS CURB, STRUCTURES, AND OTHER FIXED OBJECTS. SEAL ALL EXPANSION JOINTS. BROOM FINISH SHALL BE PERPENDICULAR TO THE LINE OF TRAFFIC.

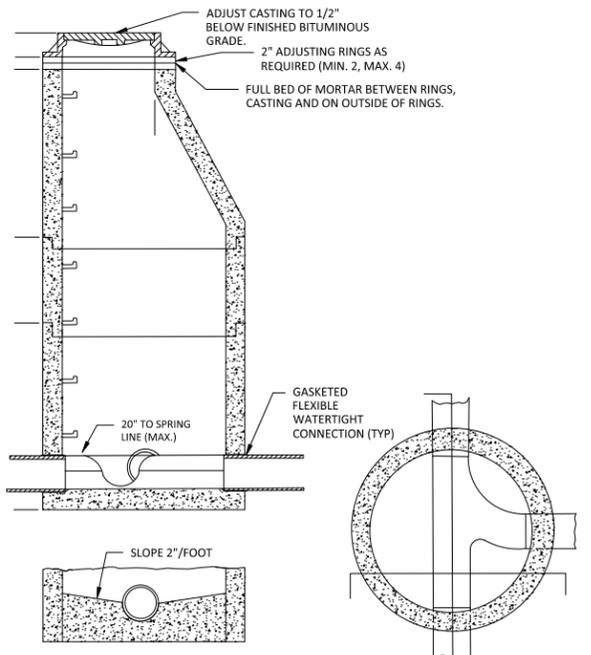
3 CONCRETE SIDEWALK
N.T.S.



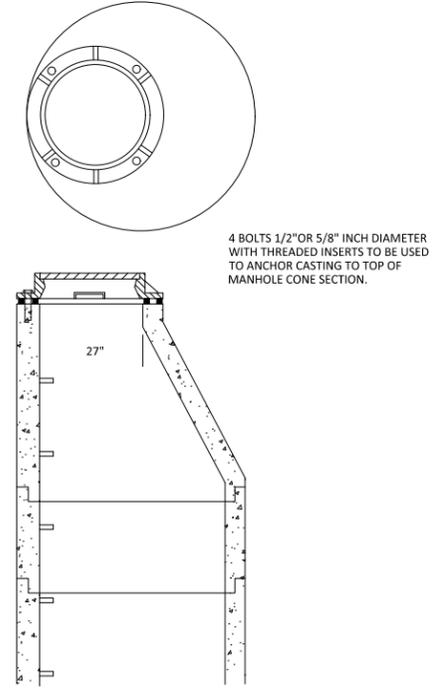
- REINFORCED CONCRETE PIPE OR DIP**
1. BEDDING AND HAUNCHING MATERIAL SHALL BE ASTM D2321-CI, I, II, III, OR IV A SOILS, AND SHALL BE SHAPED TO THE BOTTOM OF THE PIPE. COMPACT BEDDING MATERIAL TO 95% STANDARD PROCTOR.
 2. SELECT FILL SHALL BE SELECT MATERIAL FREE OF LARGE ROCKS (3"+) AND SHALL BE PLACED IN 8" MAX. LOOSE LIFTS AND COMPACTED TO 95% STANDARD PROCTOR.
- FLEXIBLE PIPE: INCLUDES CORRUGATED METAL PIPE, CORRUGATED POLYETHYLENE PIPE AND/OR POLYVINYL CHLORIDE PIPE**
1. GRANULAR BEDDING AND ENCASEMENT MATERIAL SHALL BE CLASS I OR II (REF. ASTM D2321 OR MN/DOT 3149.2F) GRANULAR MATERIAL, AND SHALL BE COMPACTED TO 95% STANDARD PROCTOR.
 2. SELECT FILL PLACEMENT AND COMPACTION. SAME AS FOR RCP.
- NOTE:**
FOR HDPE INSTALLED BELOW EXISTING OR FUTURE GROUND WATER ELEVATIONS, PIPE BEDDING AND ENCASEMENT SHALL BE CLASS I, CRUSHED ROCK PER ASTM D2321.

4 SANITARY SEWER BEDDING
N.T.S.

S-10
05/06
NO SCALE

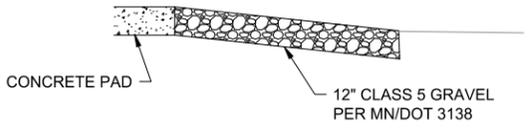


5 STANDARD SANITARY SEWER MANHOLE
N.T.S.

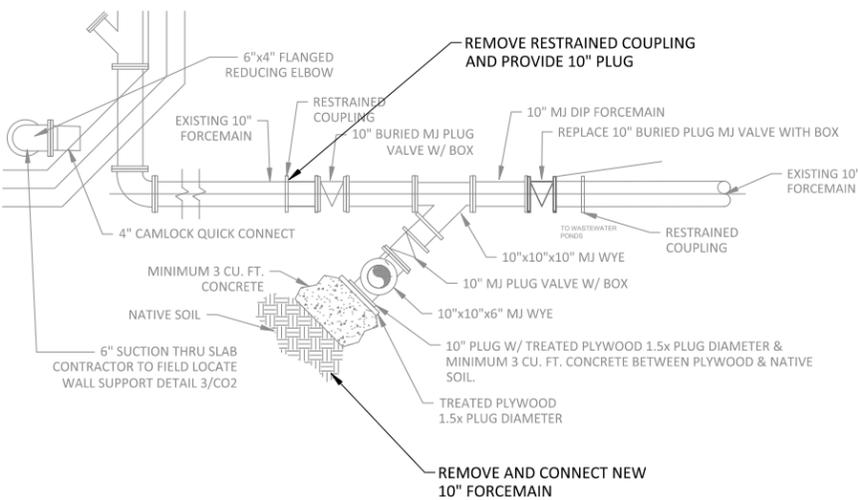


6 WATER TIGHT CASTING STANDARD MANHOLE
N.T.S.

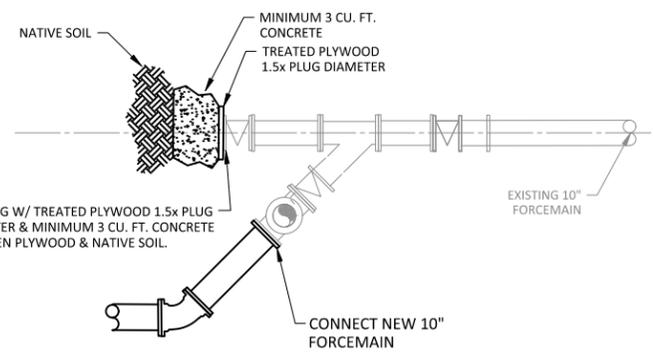
S-03
05/06
NO SCALE



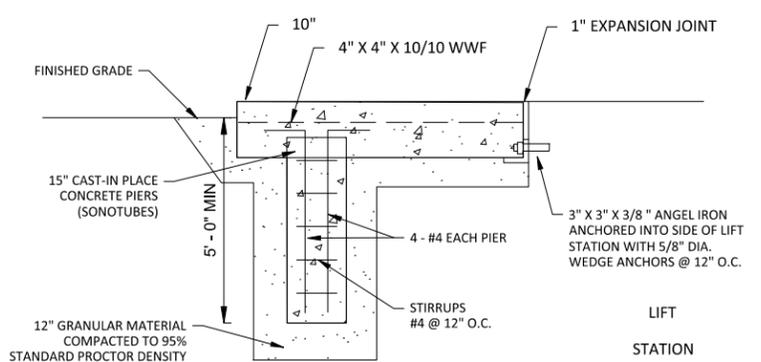
7 GRAVEL DRIVEWAY SECTION
N.T.S.



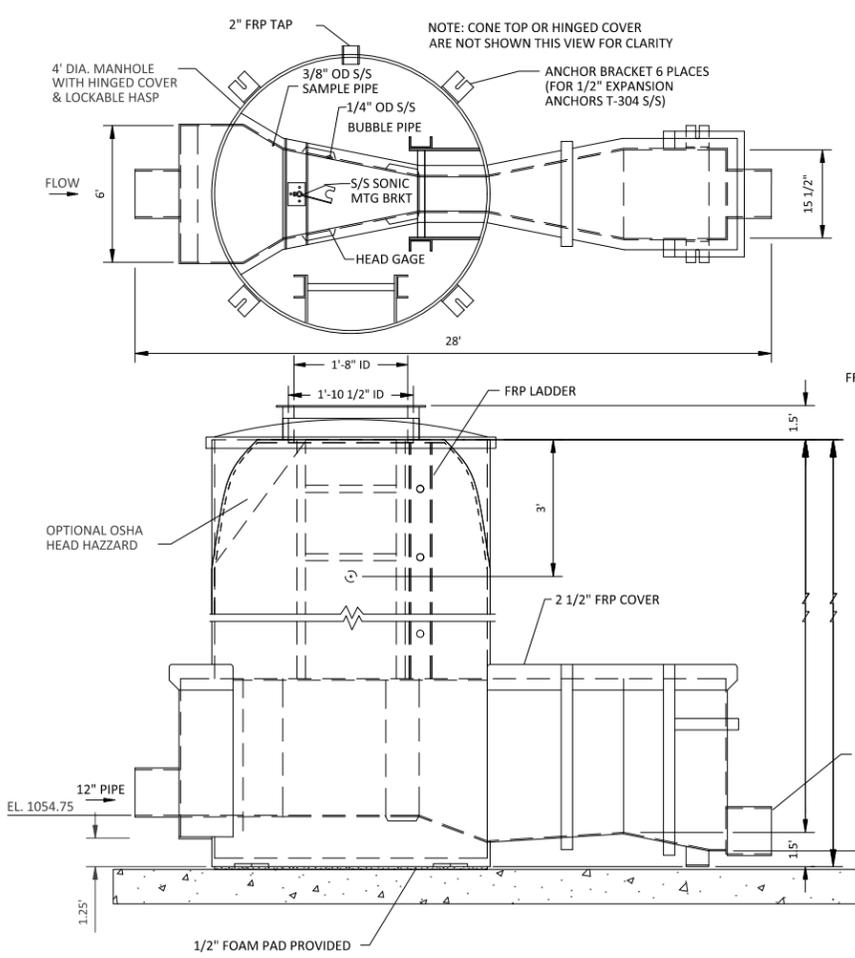
1 EXISTING BYPASS DETAIL
N.T.S.



3 NEW BYPASS DETAIL
N.T.S.

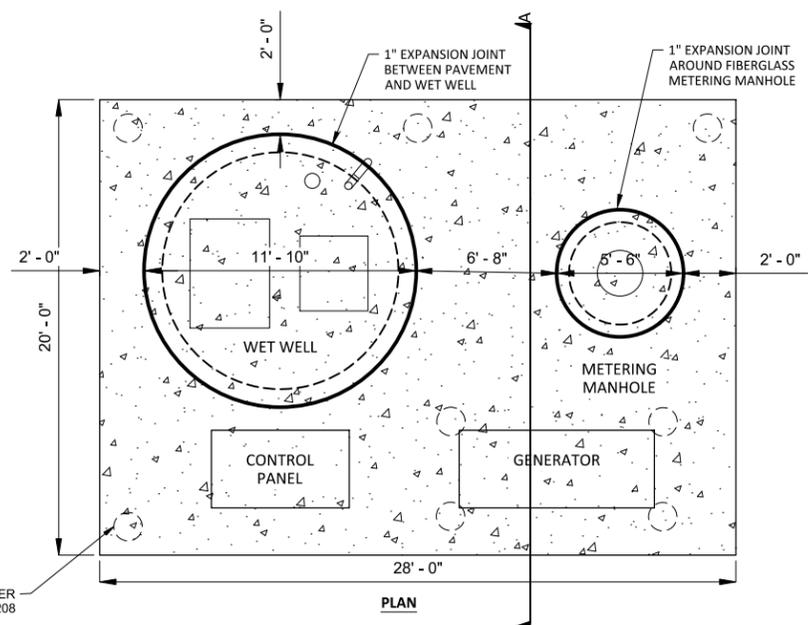
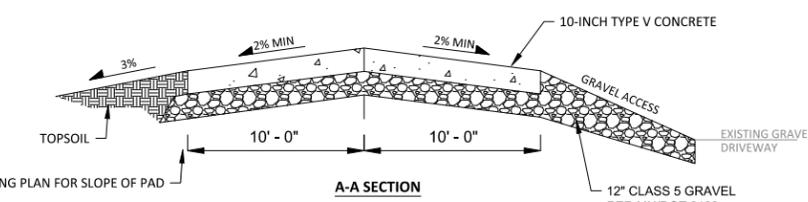
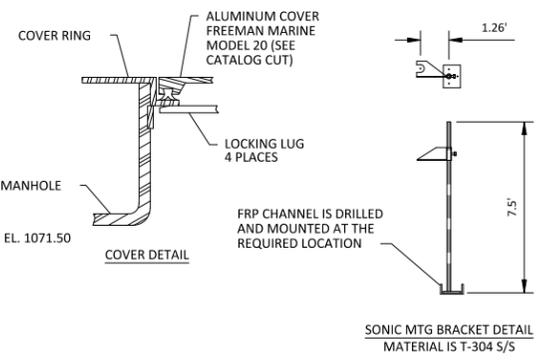


4 EQUIPMENT SUPPORT PLATFORM FOUNDATION DETAIL
N.T.S.



2 METERING MANHOLE
N.T.S.

- NOTES:
1. MATERIAL IS FRP (FIBERGLASS REINFORCED POLYESTER).
 2. NEOPRENE BOOTS ARE SECURED WITH STAINLESS STEEL BANDS.
 3. RECOMMEND CONTRACTOR TO FILL MANHOLE WITH CONCRETE OR SAND COVERED WITH CONCRETE TO THE TOP OF THE FLUME.
 4. ALL HARDWARE IS TYPE 304 STAINLESS STEEL.
 5. MANHOLE BARREL IS A MINIMUM OF 1/2" THICK FRP.
 6. INTEGRAL HEAD GAGE IS LOCATED AT MEASUREMENT POINT.
 7. METERING MANHOLE SUPPLIER TO DESIGN CONCRETE PAD FOR METERING MANHOLE. SUBMIT MN PROFESSIONAL ENGINEER STAMPED DRAWINGS WITH A MANHOLE SUBMITTAL FOR PROJECT FILES.



5 TOP CONCRETE PAD DETAIL AROUND LIFT STATION
N.T.S.

Feb 27, 2020 - 5:29pm - User:igonzalez L:\PROJECTS\07456.03\CAD\Civil\Sheets\C206-DTL5.dwg



I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly licensed professional ENGINEER under the laws of the state of Minnesota.

Richard R. Tubising

RICHARD R. TUBISING
Registration No. 16981 Date: Feb 24, 2020

If applicable, contact us for a wet signed copy of this plan which is available upon request at Sambatek's, Minnetonka, MN office.

Designed: RRT Drawn: JGG
Approved: RRT Book / Page:
Phase: Initial Issue: MM/DD/YYYY



Certification

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Stuart S. Stephens

STUART S. STEPHENS
Registration No. 25753 Date: Feb 28, 2020

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Summary

Designed: sss Drawn: TJJ2
Approved: sss Book / Page:
Phase: Initial Issue: 02/28/2020

Revision History

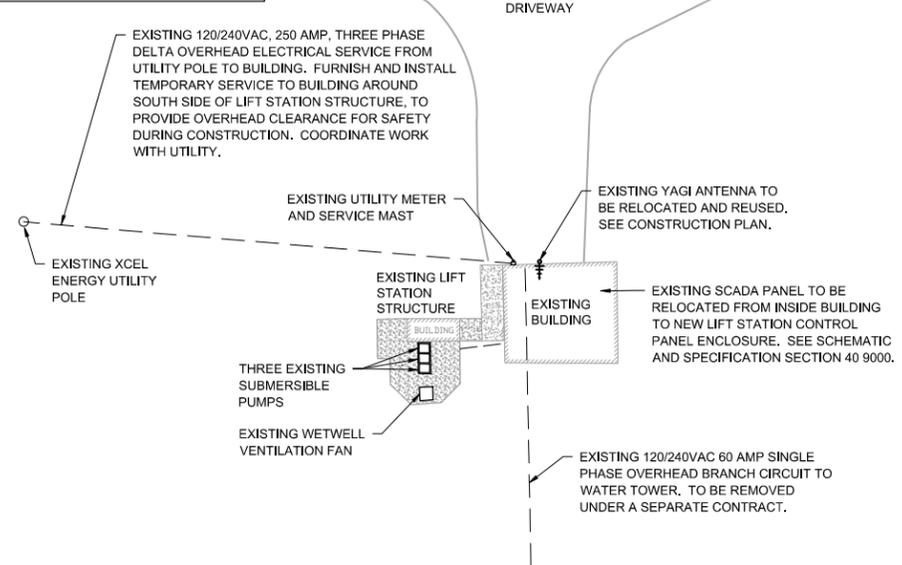
No. Date By Submittal / Revision

Sheet Title
ELECTRICAL
SITE PLANS

Sheet No. Revision
E301

Project No. 07-456.03

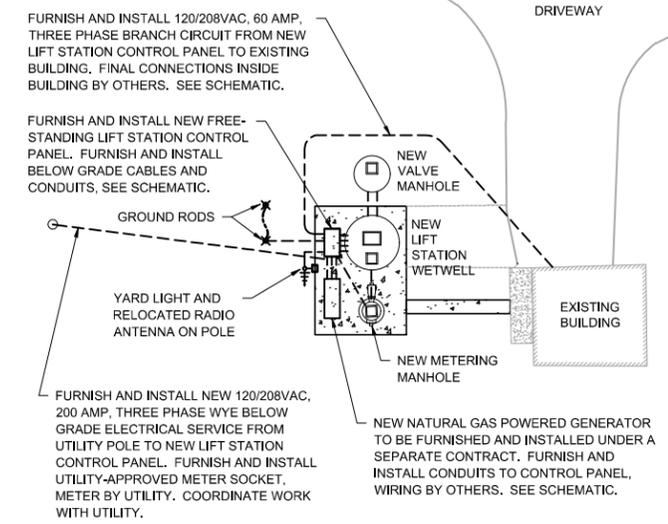
NOTE: EXISTING LIFT STATION WILL REMAIN IN OPERATION DURING CONSTRUCTION. EXISTING LIFT STATION SWITCHGEAR AND CONTROL PANEL INSIDE BUILDING WILL BE REMOVED UNDER A SEPARATE CONTRACT AFTER NEW LIFT STATION IS OPERATIONAL.



0 20 40
SCALE IN FEET

ELECTRICAL SITE DEMOLITION PLAN

NOTE: SEE LIFT STATION PLAN AND SECTION VIEWS ON SHEET E-02 FOR ADDITIONAL DETAIL.

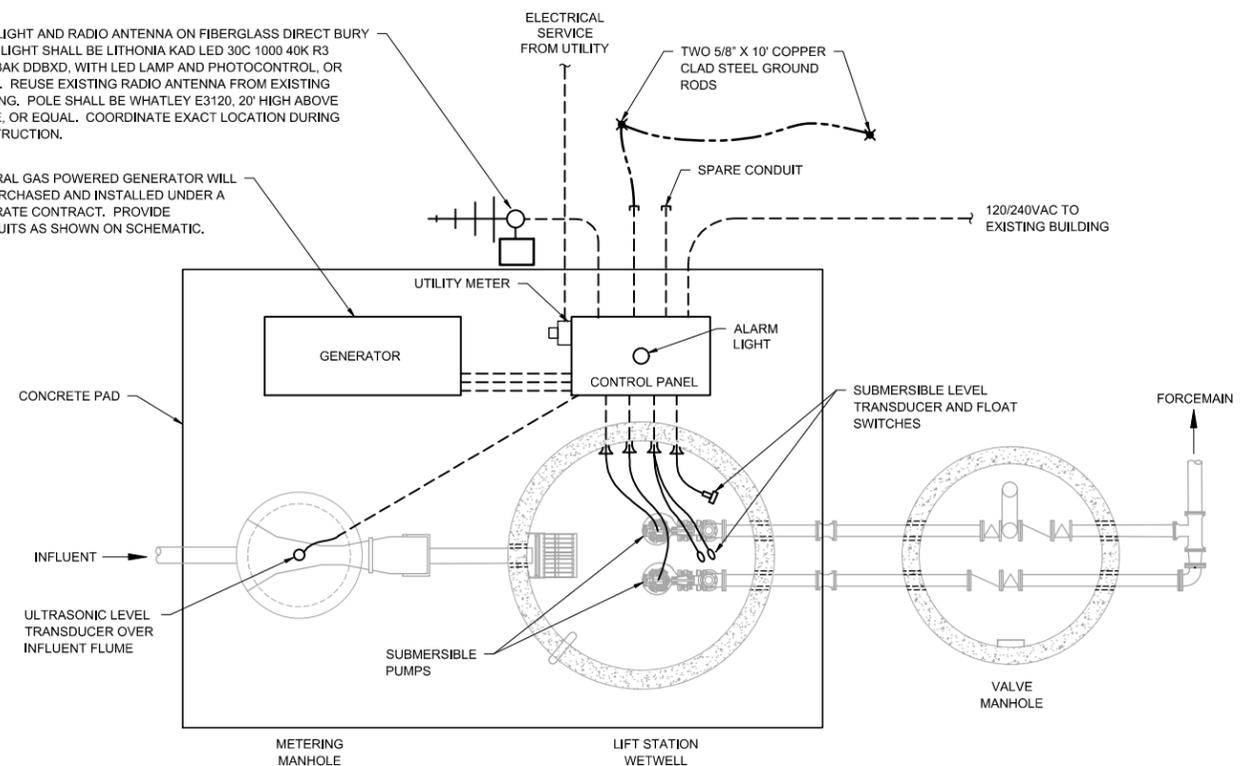


0 20 40
SCALE IN FEET

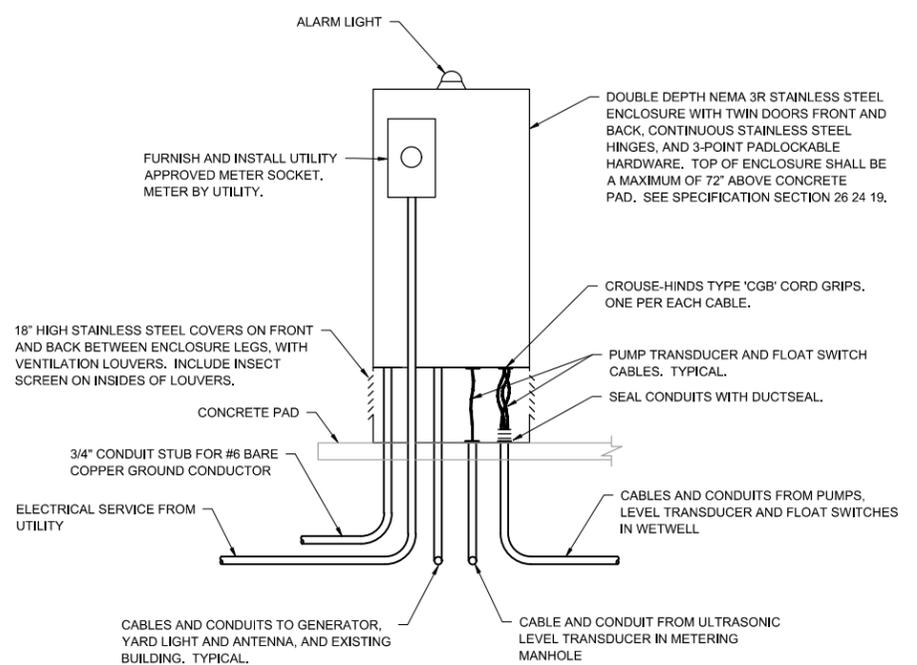
ELECTRICAL SITE CONSTRUCTION PLAN

YARD LIGHT AND RADIO ANTENNA ON FIBERGLASS DIRECT BURY POLE. LIGHT SHALL BE LITHONIA KAD LED 30C 1000 40K R3 RPUMBAK DDBXD, WITH LED LAMP AND PHOTOCONTROL, OR EQUAL. REUSE EXISTING RADIO ANTENNA FROM EXISTING BUILDING. POLE SHALL BE WHATLEY E3120, 20' HIGH ABOVE GRADE, OR EQUAL. COORDINATE EXACT LOCATION DURING CONSTRUCTION.

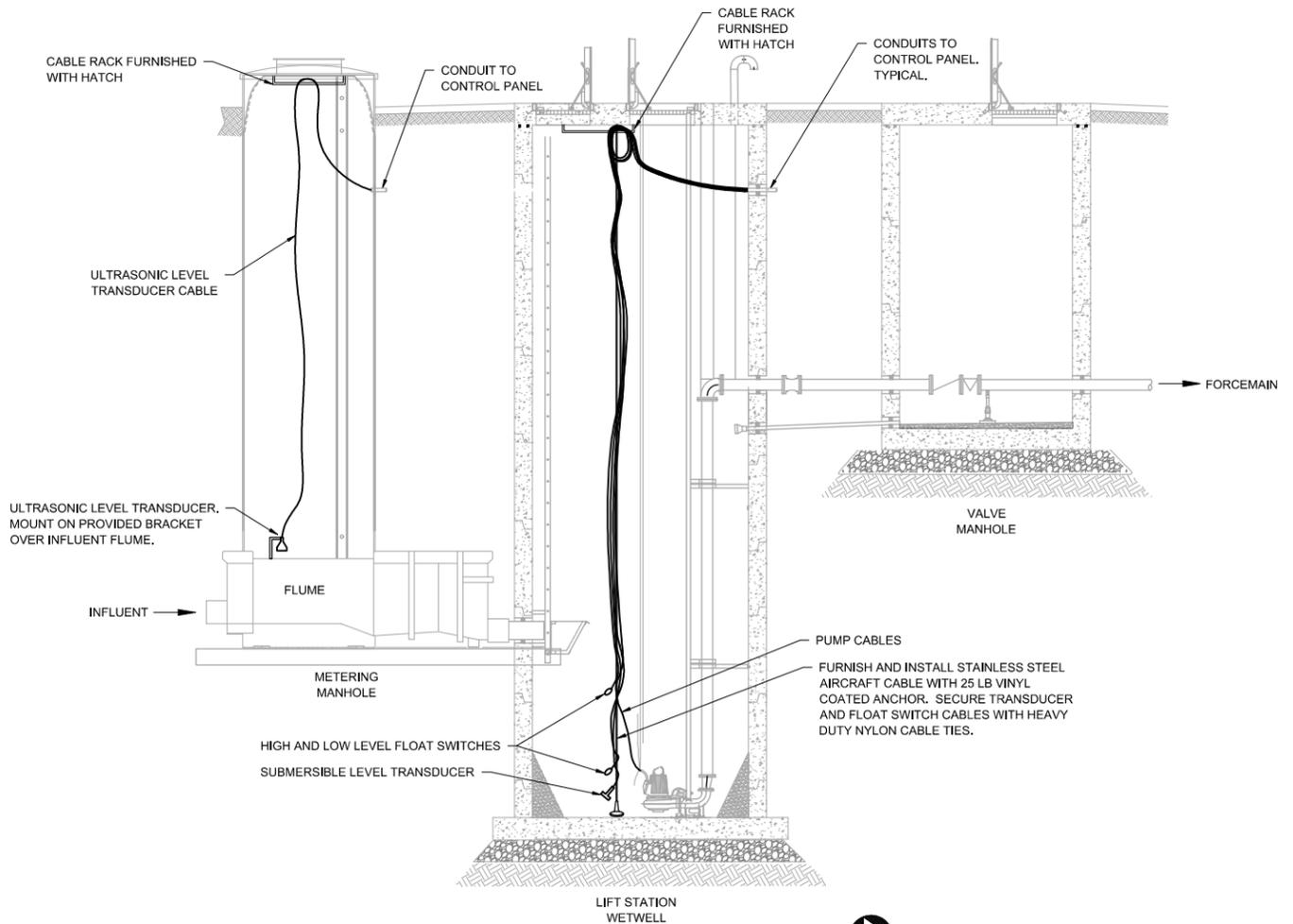
NATURAL GAS POWERED GENERATOR WILL BE PURCHASED AND INSTALLED UNDER A SEPARATE CONTRACT. PROVIDE CONDUITS AS SHOWN ON SCHEMATIC.



LIFT STATION ELECTRICAL PLAN
 0 2 4 6 8
 SCALE IN FEET



CONTROL PANEL SIDE VIEW



LIFT STATION ELECTRICAL SECTION
 0 2 4 6 8
 SCALE IN FEET

GENERAL NOTES:

- COORDINATE INSTALLATION OF ELECTRICAL SERVICE WITH XCEL ENERGY. SEE SPECIFICATION SECTION 26 2000.
- USE GALVANIZED RIGID STEEL CONDUIT ABOVE GRADE, TRANSITION TO SCHEDULE 80 PVC CONDUIT BELOW GRADE. SEE SPECIFICATION SECTION 26 0500.
- FIELD CONFIRM LOCATIONS OF EXISTING UNDERGROUND CABLES, CONDUITS, PIPES, UTILITIES, ETC. PRIOR TO CONSTRUCTION, AND PROTECT FROM DAMAGE.
- LIFT STATION WETWELL AND METERING MANHOLES SHALL BE CONSIDERED NEC CLASS 1, DIVISION 1, GROUP D HAZARDOUS AREAS.
- COORDINATE EXACT SIZES AND LOCATIONS OF CONTROL PANEL AND GENERATOR DURING CONSTRUCTION.
- SEE CONTROL PANEL SCHEMATICS FOR CABLE AND CONDUIT QUANTITIES AND SIZES.
- SEAL PENETRATIONS IN WETWELL AND METERING MANHOLE WALLS FOR ELECTRICAL CONDUITS WITH NON-SHRINK GROUT. TYPICAL.
- SOME ITEMS MAY BE ROTATED FOR CLARITY. SEE SITE PLAN FOR ORIENTATIONS.

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 Engineering | Surveying | Planning | Environmental

Client
SAMBATEK

COTTONWOOD, MN

Project
COTTONWOOD
MAIN LIFT
STATION

Location
COTTONWOOD,
MN



Certification

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly licensed professional ENGINEER under the laws of the state of Minnesota.

Stuart S. Stephens
 STUART S. STEPHENS
 Registration No. 25753 Date: Feb 28, 2020
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Summary

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 Approved: sss Book / Page:
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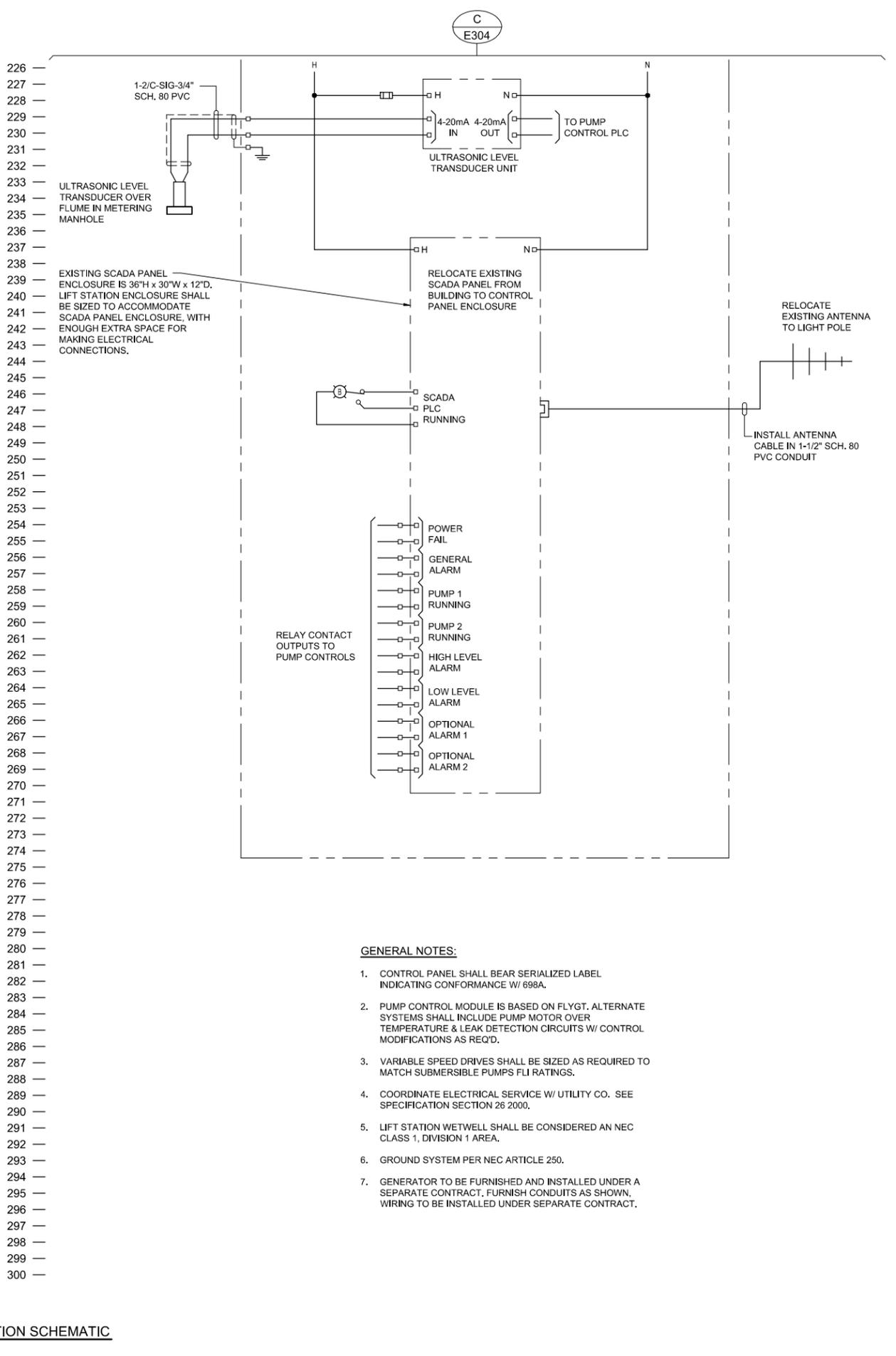
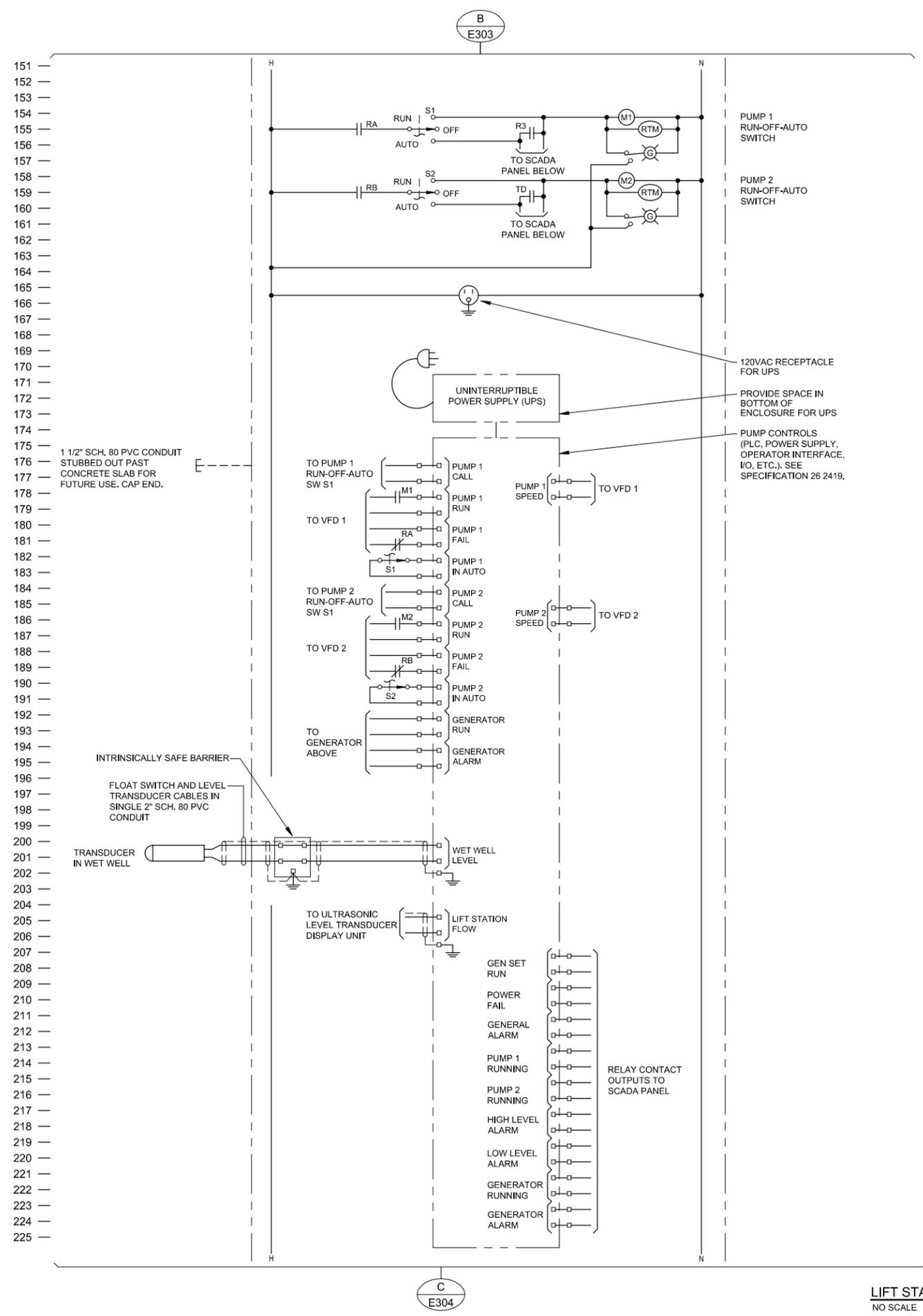
Revision History

No. Date By Submittal / Revision

Sheet Title
ELECTRICAL
PLAN AND
SECTION

Sheet No. Revision
E302

Project No. 07-456.03



- GENERAL NOTES:**
- CONTROL PANEL SHALL BEAR SERIALIZED LABEL INDICATING CONFORMANCE W/ 698A.
 - PUMP CONTROL MODULE IS BASED ON FLYGT. ALTERNATE SYSTEMS SHALL INCLUDE PUMP MOTOR OVER TEMPERATURE & LEAK DETECTION CIRCUITS W/ CONTROL MODIFICATIONS AS REQ'D.
 - VARIABLE SPEED DRIVES SHALL BE SIZED AS REQUIRED TO MATCH SUBMERSIBLE PUMPS FLI RATINGS.
 - COORDINATE ELECTRICAL SERVICE W/ UTILITY CO. SEE SPECIFICATION SECTION 26 2000.
 - LIFT STATION WETWELL SHALL BE CONSIDERED AN NEC CLASS 1, DIVISION 1 AREA.
 - GROUND SYSTEM PER NEC ARTICLE 250.
 - GENERATOR TO BE FURNISHED AND INSTALLED UNDER A SEPARATE CONTRACT, FURNISH CONDUITS AS SHOWN, WIRING TO BE INSTALLED UNDER SEPARATE CONTRACT.

LIFT STATION SCHEMATIC
NO SCALE