

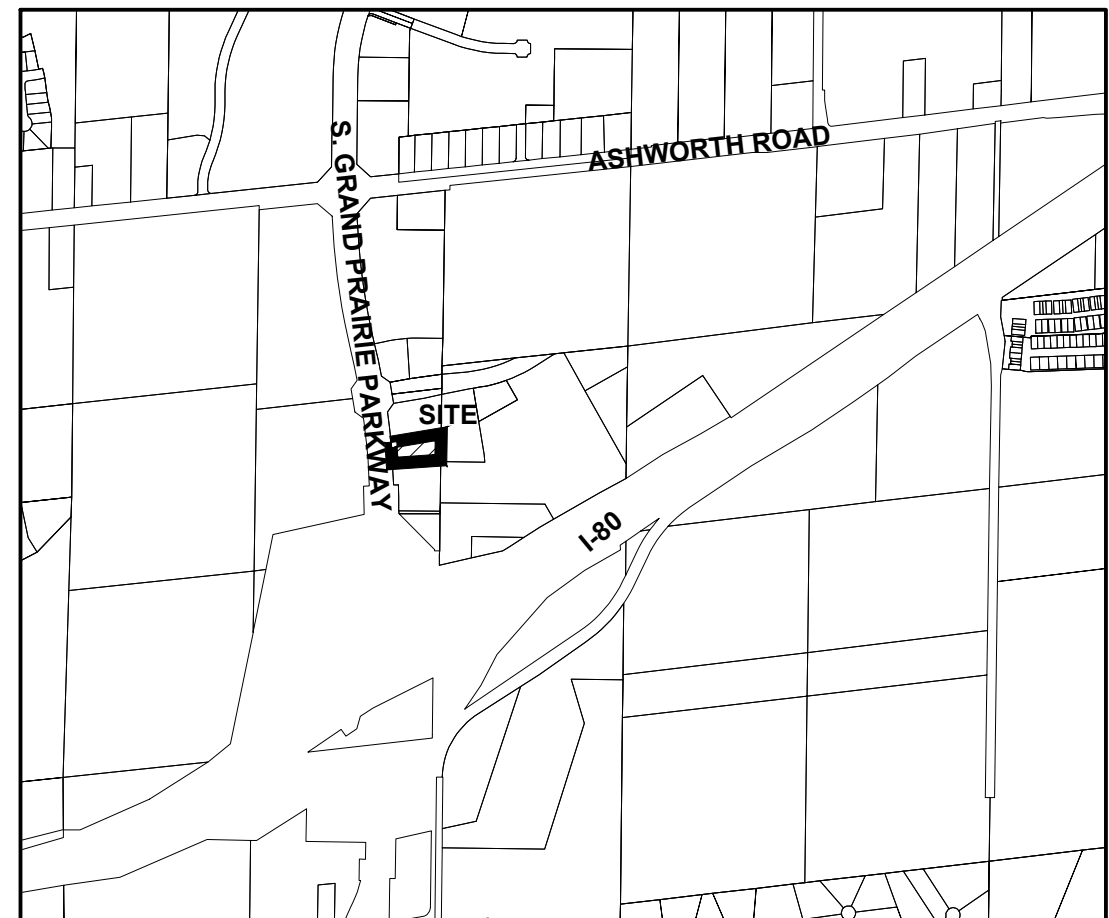
SITE PLAN/PRELIMINARY PLAT FOR:

VALVOLINE WAUKEE

3145 GRAND PRAIRIE PARKWAY WAUKEE, IOWA

VICINITY MAP

NOT TO SCALE



WAUKEE, IOWA

LEGAL DESCRIPTION

OUTLOT 'Z', OAKLEAF PLAT 1, AN OFFICIAL PLAT IN THE CITY OF WAUKEE, DALLAS COUNTY, IOWA, EXCEPT PARCEL 18-152 OF SAID OUTLOT 'Z' AS SHOWN ON THE PLAT OF SURVEY RECORDED IN BOOK 2018, PAGE 23345.

THE PROPERTY CONTAINS 1.35 ACRES (58,608 SQUARE FEET) AND IS SUBJECT TO ANY AND ALL EASEMENTS OF RECORD.

ZONING

K-RR KETTLESTONE RETAIL REGIONAL

PROJECT SITE ADDRESS

3145 GRAND PRAIRIE PARKWAY

EXISTING/ PROPOSED USE

EXISTING: UNDEVELOPED

PROPOSED: DRIVE THRU OIL CHANGE

DEVELOPMENT SUMMARY

AREA: 1.35 ACRES (58,853 SF)

SETBACKS

FRONT: 0 FT
 SIDE: 0 FT
 REAR: 50 FT
 IF ADJACENT TO SFR: 0 FT
 IF ADJACENT TO SFR: 50 FT

OPEN SPACE

REQUIRED: 11,721 (20%)
 OPEN SPACE PROVIDED: 30,593 SF (52%)

IMPERVIOUS AREA

BUILDING: 2,139 SF
 PARKING AREAS: 1,816 SF
 HEAVY DUTY: 331 SF
 DRIVEWAYS: 10,797 SF
 SIDEWALK: 1,604 SF
 EXISTING IMPERVIOUS: 11,573 SF
 28,260 SF

PARKING

REQUIRED: (1/250 SF) 9 SPACES

PROVIDED

STANDARD: 9 SPACES
 ACCESSIBLE: 1 SPACE
 10 SPACES

BIKE PARKING

REQUIRED: 1 SPACE
 PROVIDED: 2 SPACES

DATE OF SURVEY

APRIL 21, 2022

BENCHMARKS

G-120 DALLAS COUNTY BENCHMARK EAST SIDE OF V PLACE & 150 FT SOUTH OF 300TH STREET.
 ELEVATION = 1011.76

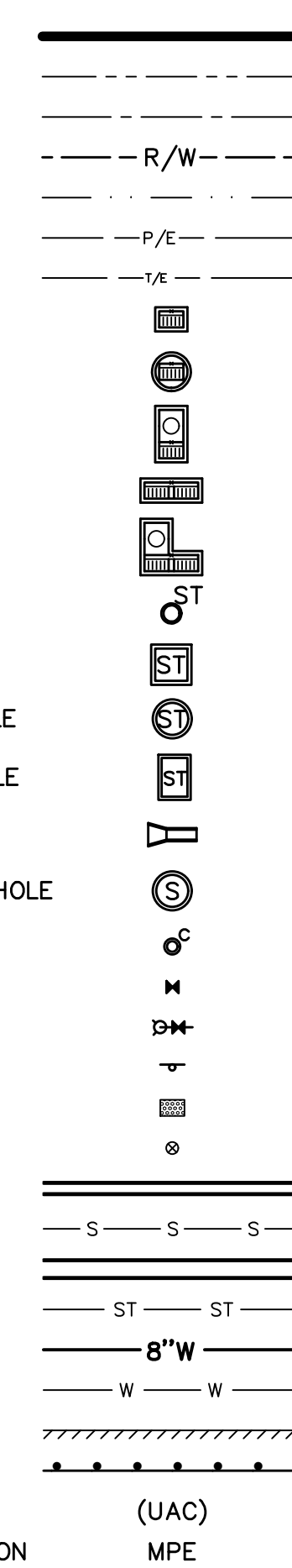
INDEX OF SHEETS

NO.	DESCRIPTION
C0.0	COVER SHEET
C1.1	TOPOGRAPHIC SURVEY/DEMOLITION PLAN
C2.1	DIMENSION PLAN
C3.1	GRADING PLAN
C3.2	EROSION AND SEDIMENT CONTROL PLAN
C4.1	UTILITY PLAN
C5.1- C5.2	DETAILS
L1.1	LANDSCAPE PLAN

GENERAL LEGEND

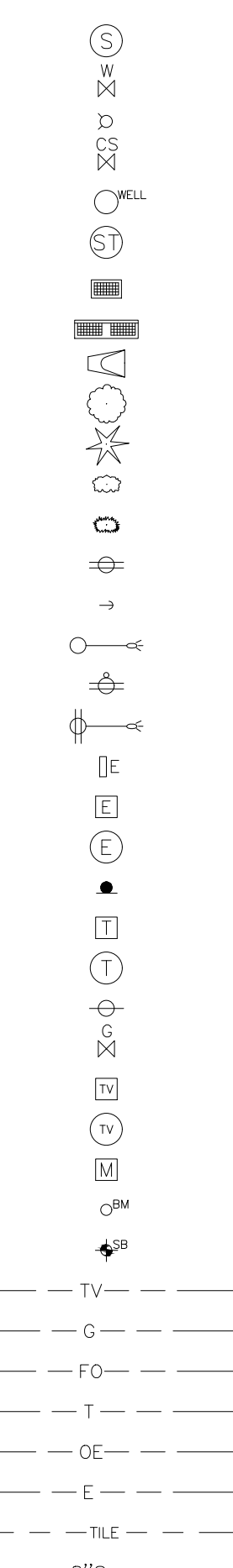
PROPOSED

- PROPERTY BOUNDARY
- SECTION LINE
- CENTER LINE
- RIGHT OF WAY
- BUILDING SETBACK
- PERMANENT EASEMENT
- TEMPORARY EASEMENT
- TYPE SW-501 STORM INTAKE
- TYPE SW-502 STORM INTAKE
- TYPE SW-503 STORM INTAKE
- TYPE SW-505 STORM INTAKE
- TYPE SW-506 STORM INTAKE
- TYPE SW-512 STORM INTAKE
- TYPE SW-513 STORM INTAKE
- TYPE SW-401 STORM MANHOLE
- TYPE SW-402 STORM MANHOLE
- FLARED END SECTION
- TYPE SW-301 SANITARY MANHOLE
- STORM/SANITARY CLEANOUT
- WATER VALVE
- FIRE HYDRANT ASSEMBLY
- SIGN
- DETECTABLE WARNING PANEL
- WATER CURB STOP
- SANITARY SEWER
- SANITARY SERVICE
- STORM SEWER
- STORM SERVICE
- WATERMAIN WITH SIZE
- WATER SERVICE
- SAWCUT (FULL DEPTH)
- SILT FENCE
- USE AS CONSTRUCTED
- MINIMUM PROTECTION ELEVATION



EXISTING

- SANITARY MANHOLE
- WATER VALVE BOX
- FIRE HYDRANT
- WATER CURB STOP
- WELL
- STORM SEWER MANHOLE
- STORM SEWER SINGLE INTAKE
- STORM SEWER DOUBLE INTAKE
- FLARED END SECTION
- DECIDUOUS TREE
- CONIFEROUS TREE
- DECIDUOUS SHRUB
- CONIFEROUS SHRUB
- ELECTRIC POWER POLE
- GUY ANCHOR
- STREET LIGHT
- POWER POLE W/ TRANSFORMER
- UTILITY POLE W/ LIGHT
- ELECTRIC BOX
- ELECTRIC TRANSFORMER
- ELECTRIC MANHOLE OR VAULT
- TRAFFIC SIGN
- TELEPHONE JUNCTION BOX
- TELEPHONE MANHOLE/VAULT
- TELEPHONE POLE
- GAS VALVE BOX
- CABLE TV JUNCTION BOX
- CABLE TV MANHOLE/VAULT
- MAIL BOX
- BENCHMARK
- SOIL BORING
- UNDERGROUND TV CABLE
- GAS MAIN
- FIBER OPTIC
- UNDERGROUND TELEPHONE
- OVERHEAD ELECTRIC
- UNDERGROUND ELECTRIC
- FIELD TILE
- SANITARY SEWER W/ SIZE
- STORM SEWER W/ SIZE
- WATER MAIN W/ SIZE



OWNER/APPLICANT

ATERRA REAL ESTATE
 1001 GRAND AVENUE,
 WEST DES MOINES, IA 50265
 CONTACT: BRENDA JACKSON
 EMAIL: BJACKSON@ATERRAREALESTATE.COM
 EMAIL: (515) 225-9029 EXT. 125

ENGINEER

CIVIL DESIGN ADVANTAGE
 4121 NW URBANDALE DRIVE
 URBANDALE, IA 50322
 CONTACT: NIKKI NEAL
 EMAIL: NICOLEN@CDA-ENG.COM
 PH. (515) 369-4400

SURVEYOR

CIVIL DESIGN ADVANTAGE, LLC
 4121 NW URBANDALE DRIVE
 URBANDALE, IA 50322
 CONTACT: CHARLIE MCGLOTHLEN
 EMAIL: CHARLIEM@CDA-ENG.COM
 PH. (515) 369-4400

ARCHITECT

FEH DESIGN
 604 EAST GRAND AVENUE
 DES MOINES, IA 50309
 CONTACT: JASON COOPER
 EMAIL: JASONC@FEWDESIGN.COM
 PH: (515) 288-2000



UTILITY WARNING

ANY UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY AND RECORDS OBTAINED BY THIS SURVEYOR. THE SURVEYOR MAKES NO GUARANTEE THAT THE UTILITIES SHOWN COMPRISE ALL THE UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UTILITIES SHOWN ARE IN THE EXACT LOCATION SHOWN.



ALL CONSTRUCTION MATERIALS, DUMPSTERS, DETACHED TRAILERS OR SIMILAR ITEMS ARE PROHIBITED ON PUBLIC STREETS OR WITHIN THE PUBLIC R.O.W.

THE 2020 WAUKEE STANDARD SPECIFICATIONS FOR PUBLIC IMPROVEMENTS, 2022 EDITION OF THE SUDAS STANDARD SPECIFICATIONS, THE PUBLIC RIGHTS-OF-WAY ACCESSIBILITY GUIDELINES (PROWAG) AND ALL CITY SUPPLEMENTALS, IF APPLICABLE, SHALL APPLY TO ALL WORK ON THIS PROJECT UNLESS OTHERWISE NOTED.

I HEREBY CERTIFY THAT THIS ENGINEERING DOCUMENT WAS PREPARED BY ME OR UNDER MY DIRECT PERSONAL SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF IOWA.

JOHN PATRICK BECKER, P.E. DATE _____

MY LICENSE RENEWAL DATE IS DECEMBER 31, 2022
 PAGES OR SHEETS COVERED BY THIS SEAL:
 SHEETS C0.0, C1.1, C2.1, C3.1-C3.2, C4.1, C5.1

I HEREBY CERTIFY THAT THE PORTION OF THIS TECHNICAL SUBMISSION DESCRIBED BELOW WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND RESPONSIBLE CHARGE. I AM A DULY LICENSED PROFESSIONAL LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF IOWA.

KEITH D. WEGGEN, ASLA DATE _____

MY LICENSE RENEWAL DATE IS JUNE 30, 2024
 PAGES OR SHEETS COVERED BY THIS SEAL:
 SHEET L1.1

SUBMITTAL DATES

FIRST SUBMITTAL: 06/07/2022
 SECOND SUBMITTAL: 07/01/2022
 THIRD SUBMITTAL: 08/09/2022

FILE: I:\3145 VALVOLINE WAUKEE\3145 VALVOLINE WAUKEE.dwg
 PLOTTED BY: NICOLE NEAL
 DATE PLOTTED: 8/9/2022 4:29 PM
 COMMENTS:

VALVOLINE WAUKEE - 2204.262

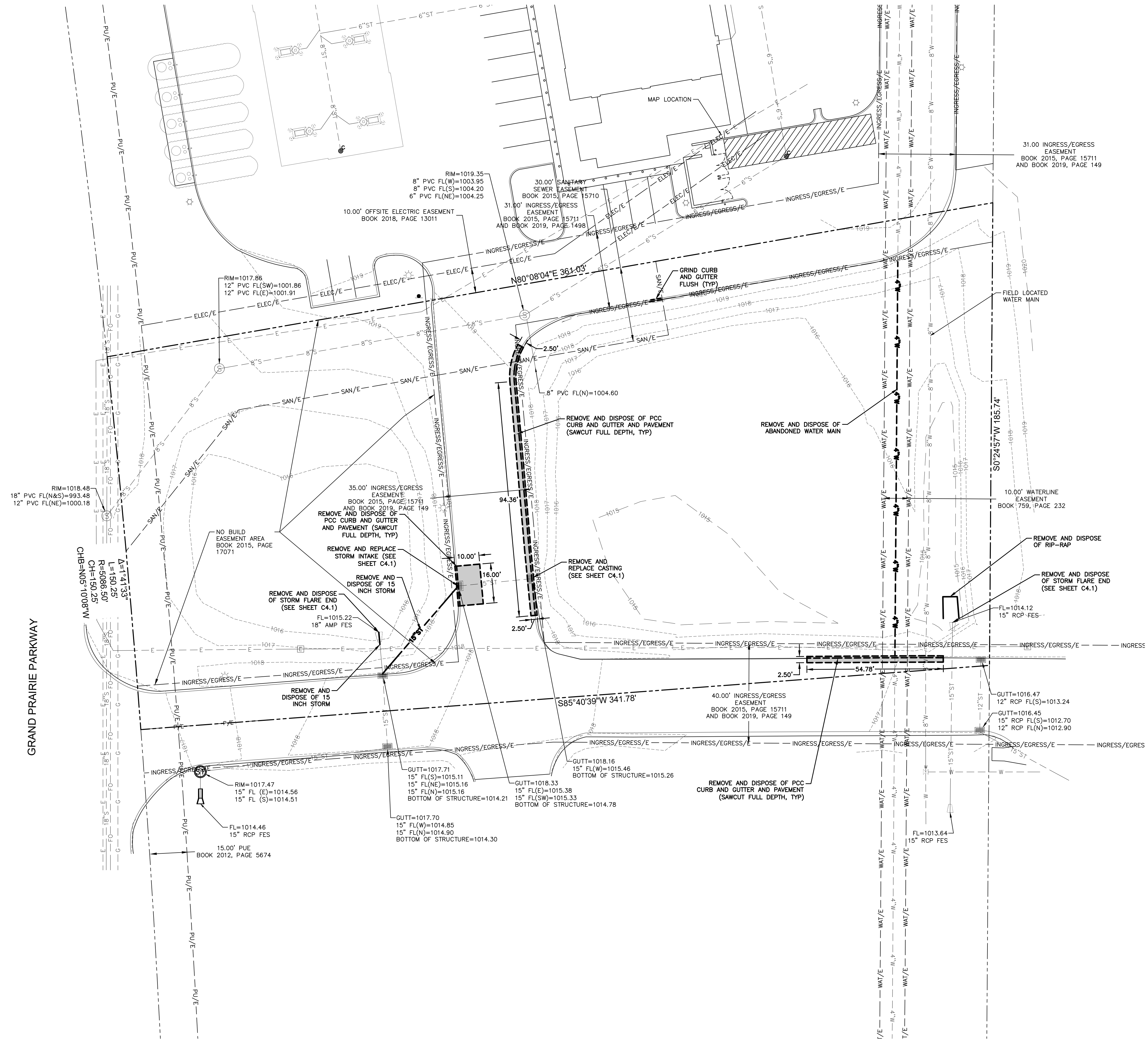
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DATE: 8/9/2022

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GRAND PRAIRIE PARKWAY



DEMOLITION NOTES

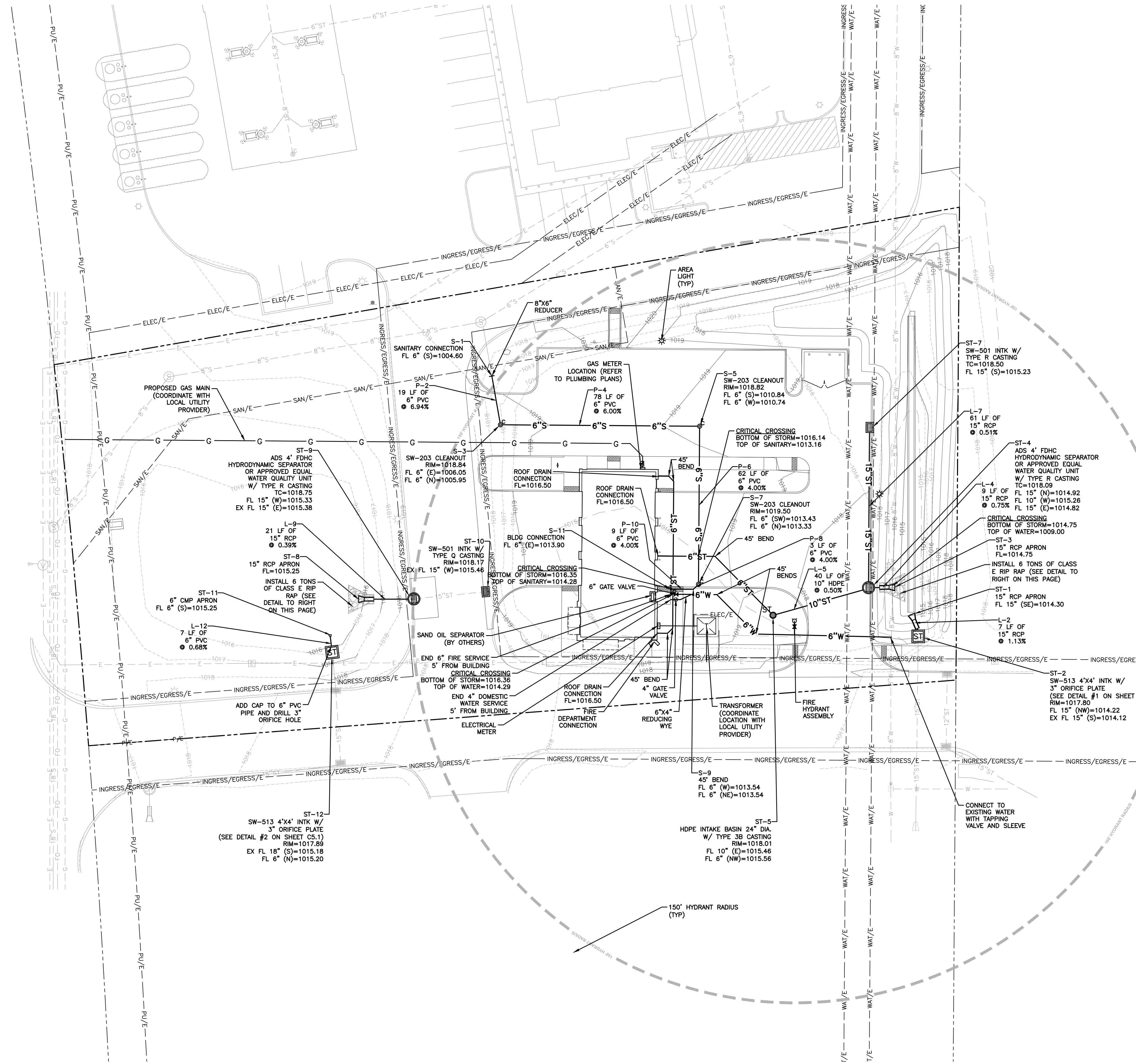
- PRIOR TO ANY WORK AT THE SITE, CONTRACTOR SHALL EXAMINE ANY APPLICABLE DRAWINGS AVAILABLE FROM THE OWNER OR ENGINEER AND CONSULT WITH OWNER'S PERSONNEL AND UTILITY COMPANY REPRESENTATIVES. NO COMPENSATION WILL BE ALLOWED FOR DAMAGE FROM FAILURE TO COMPLY WITH THIS REQUIREMENT.
- PRIOR TO DEMOLITION, CONTRACTOR SHALL NOTIFY IN WRITING (48 HRS NOTICE) THE FOLLOWING:
 - CITY
 - APPROPRIATE UTILITY COMPANIES
 - OWNER
 - CIVIL DESIGN ADVANTAGE
 - ARCHITECT
- DO NOT DISTURB EXISTING UTILITIES UNLESS OTHERWISE NOTED. COORDINATE REMOVAL OR ABANDONMENT OF ALL UTILITIES WITH THE APPROPRIATE UTILITY SUPPLIER AND REGULATORY AGENCIES.
- PROTECT EXISTING UTILITIES THAT ARE TO REMAIN. THE LOCATIONS OF ALL UTILITIES INDICATED ON THE PLANS ARE TAKEN FROM EXISTING RECORDS. THE EXACT LOCATION AND ELEVATION OF ALL UTILITIES MUST BE DETERMINED BY THE CONTRACTOR. IT SHALL BE THE DUTY OF THE CONTRACTOR TO ASCERTAIN WHETHER ANY ADDITIONAL FACILITIES OTHER THAN THOSE SHOWN ON THE PLAN MAY BE PRESENT.
- BACKFILL ALL EXCAVATIONS WITH COHESIVE MATERIAL COMPACTED TO 95% MAXIMUM STANDARD PROCTOR DRY DENSITY AND MOISTURE RANGE OF OPTIMUM MOISTURE TO 4% ABOVE OPTIMUM MOISTURE. TESTING OF BACKFILL TO BE BY A GEOTECHNICAL ENGINEER EMPLOYED BY THE OWNER. IN THE EVENT OF A TEST FAILURE, ANY RETESTING SHALL BE PAID FOR BY THE CONTRACTOR.
- FIELD VERIFY EXISTING GRADES AND LOCATION OF EXISTING UTILITIES, CONDUIT, LINES, POLES, TREES, PAVING, BUILDING AND OTHER SITE FEATURES PRIOR TO DEMOLITION AND IMMEDIATELY INFORM THE ENGINEER AND/OR OWNER OF ANY DISCREPANCIES.
- DEMOLITION NOTES AS SHOWN ON THE PLAN ARE NOT ALL INCLUSIVE. CONTRACTOR TO ABANDON IN PLACE OR REMOVE AND DISPOSE OF ALL EXISTING SITE IMPROVEMENTS ABOVE AND BELOW GROUND TO COMPLY WITH THE GENERAL INTENT OF THIS DOCUMENT.
- ALL CONSTRUCTION/DEMOLITION DEBRIS SHALL BE DISPOSED OFFSITE IN FULL COMPLIANCE WITH CURRENT ENVIRONMENTAL REGULATIONS.
- CONSTRUCTION LIMITS SHALL BE CONFINED TO THE SITE BOUNDARY AS NOTED. ANY DAMAGE TO PROPERTIES OUTSIDE THE SITE BOUNDARY SHALL BE AT THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
- ALL WORK SHALL BE IN ACCORDANCE WITH OSHA STANDARDS. NOTHING INDICATED ON THE DRAWINGS SHALL RELIEVE THE CONTRACTOR FROM COMPLYING WITH ANY APPROPRIATE SAFETY REGULATIONS.
- A DEMOLITION PERMIT WILL BE REQUIRED FROM THE WAUKEE COMMUNITY DEVELOPMENT DEPARTMENT PRIOR TO COMMENCEMENT OF DEMOLITION WORK.

TRAFFIC CONTROL NOTES

- ALL APPLICABLE CITY PERMITS, INCLUDING BUT NOT LIMITED TO CLOSURE PERMITS, SHALL BE OBTAINED PRIOR TO ANY CONSTRUCTION WITHIN CITY R.O.W. OR LANE CLOSURES.
- ALL TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
- PERMANENT SIGNING THAT CONVEYS A MESSAGE CONTRARY TO THE MESSAGE OF TEMPORARY SIGNING AND NOT APPLICABLE TO THE WORKING CONDITIONS SHALL BE COVERED BY THE CONTRACTOR WHEN DIRECTED BY THE CITY.
- THE CONTRACTOR SHALL COORDINATE HIS TRAFFIC CONTROL WITH OTHER CONSTRUCTION PROJECTS IN THE AREA.
- SIDEWALK CLOSED SIGNS REQUIRED FOR ALL SIDEWALK CLOSURES.
- THE CONTRACTOR IS CAUTIONED NEITHER TO OBSTRUCT NOR REMOVE ANY EXISTING PAVEMENT, NOR TO DISTURB THE EXISTING TRAFFIC PATTERNS MORE THAN IS NECESSARY FOR THE PROPER EXECUTION OF THE WORK.
- ALL SIGNING AND LANE STRIPING WILL NEED TO COMPLY WITH MUTCD. MAINTENANCE AND REPLACEMENT OF THE SIGNING AND STRIPING WILL BE THE RESPONSIBILITY OF THE APPLICANT.

DATE	
REVISIONS	
4121 NW URBANDEALE DRIVE	URBANDEALE, IA 50322
PHONE: (515) 369-4400	FAX: (515) 369-4410
ENGINEER:	DRAFTED:
VALVOLINE WAUKEE TOPOGRAPHIC SURVEY/DEMOLITION PLAN WAUKEE, IOWA	
DATE:	08/09/2022
SHEET NUMBER:	C1.1
	2204.262

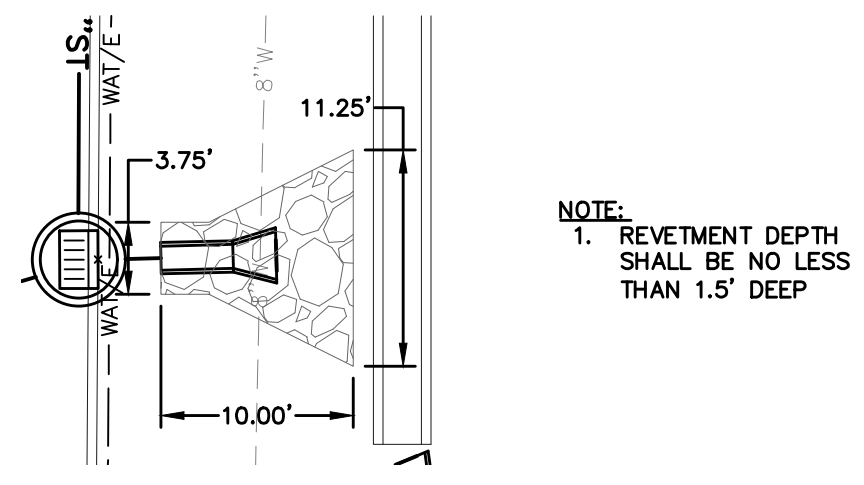
GRAND PRAIRIE PARKWAY



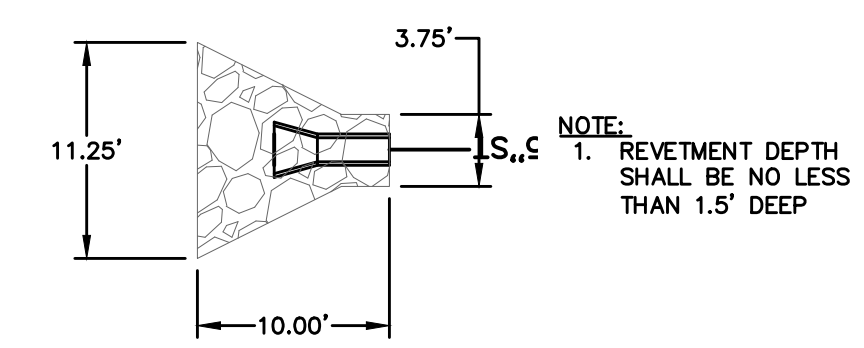
UTILITY NOTES

- REFER TO MECHANICAL, ELECTRICAL AND PLUMBING PLANS FOR UTILITY SERVICE SIZES AND EXACT LOCATIONS. REFER TO ELECTRICAL PLANS FOR ELECTRIC AND TELEPHONE SERVICE CONSTRUCTION DETAILS. REFER TO MECHANICAL PLANS FOR GAS SERVICE CONSTRUCTION DETAILS.
- FIELD VERIFY ELEVATIONS AND LOCATIONS OF ALL CONNECTIONS TO EXISTING UTILITIES PRIOR TO COMMENCING CONSTRUCTION.
- PROVIDE TEMPORARY SUPPORT FOR EXISTING UTILITY LINES THAT ARE ENCOUNTERED DURING CONSTRUCTION UNTIL BACKFILLING IS COMPLETE.
- BACKFILL ALL UTILITY TRENCHES ACCORDING TO ALL 2020 CITY OF WAUKEE STANDARD SPECIFICATIONS AND THE 2022 EDITION OF THE SUDAS STANDARD SPECIFICATIONS. MAINTAIN A MINIMUM OF 5.5' COVER OVER ALL WATERMANS.
- 5" STORZ FITTINGS ON ALL HYDRANTS INCLUDING ANY RELOCATED HYDRANTS. ADJUST ALL MANHOLES AND INTAKES TO FINISHED GRADES. INSTALL CHIMNEY SEALS ON ANY ADJUSTED SANITARY MANHOLES. ALL PROPOSED SANITARY MANHOLES ARE TO UTILIZE A TYPE 'A' WITH PRORINGS, PER WAUKEE STANDARD SPECS.
- ALL SANITARY SEWER AND WATER SERVICES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF WAUKEE STANDARD SPECIFICATIONS FOR PUBLIC IMPROVEMENTS.
- 18" MINIMUM VERTICAL CLEARANCE BETWEEN STORM SEWER AND SANITARY SEWER PIPES. GASKET JOINTS ARE TO BE INSTALLED IN SITUATIONS LESS THAN 18" BELOW OR ANY TIME. SANITARY OR STORM SEWER CROSSES OVER WATERMAIN. SEE SUDAS STANDARD SPECIFICATION DIVISION 5 SECTION 5010-3.07.
- MAINTAIN A MINIMUM OF 10' HORIZONTAL SEPARATION BETWEEN SANITARY SEWER LINES AND WATER MAINS.
- WHERE PUBLIC UTILITY FIXTURES ARE SHOWN AS EXISTING ON THE PLANS OR ENCOUNTERED WITHIN THE CONSTRUCTION AREA, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE OWNERS OF THOSE UTILITIES PRIOR TO THE BEGINNING OF ANY CONSTRUCTION. THE CONTRACTOR SHALL AFFORD ACCESS TO THESE FACILITIES FOR NECESSARY MODIFICATION OF SERVICES, UNDERGROUND FACILITIES, STRUCTURES AND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS AND RECORDS, AND THEREFORE, THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. IT IS POSSIBLE THERE MAY BE OTHERS, THE EXISTENCE OF WHICH IS PRESENTLY NOT KNOWN OR SHOWN. IT IS THE CONTRACTORS RESPONSIBILITY TO DETERMINE THEIR EXISTENCE AND EXACT LOCATIONS AND TO AVOID DAMAGE THERETO. NO CLAIMS FOR ADDITIONAL COMPENSATION WILL BE ALLOWED TO THE CONTRACTOR FOR ANY INTERFERENCE OR DELAY CAUSED BY SUCH WORK. THE CONTRACTOR IS REQUIRED TO UTILIZE THE UTILITY ONE-CALL SERVICE AT 800-292-8989 AT LEAST 48 HOURS PRIOR TO EXCAVATING ANYWHERE ON THE PROJECT.
- ALL WATERMAIN WORK, PUBLIC OR PRIVATE SHALL BE DONE IN ACCORDANCE WITH THE CITY OF WAUKEE STANDARD SPECIFICATIONS FOR PUBLIC IMPROVEMENTS.
- THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION OF WORK OF ALL SUBCONTRACTOR(S) INVOLVED IN THE PROJECT.
- PRIVATE UTILITIES TO BE INSTALLED PER THE CITY OF WAUKEE STANDARD SPECIFICATIONS AND THE LATEST EDITION OF THE UNIFORM PLUMBING CODE. CONTACT BUILDING INSPECTION A MINIMUM OF 24 HOURS IN ADVANCE FOR UTILITY INSTALLATION INSPECTIONS. ALL APPLICABLE UTILITY COMPANIES SHALL BE CONTACTED 48 HOURS PRIOR TO ANY WORK BEING STARTED.
- CONTRACTOR SHALL PREVENT ENTRY OF MUD, DIRT, DEBRIS AND OTHER MATERIAL INTO NEW AND EXISTING SEWER SYSTEMS. SHOULD ANY CONTAMINATION OCCUR DURING CONSTRUCTION, THE CONTRACTOR SHALL CLEAN AT NO COST TO THE OWNER. INSTALL SEDIMENT CONTROLS AT ALL PERMANENT STORM SEWER INLETS. DROP DOWN INLET PROTECTION IS REQUIRED FOR PUBLIC STREETS.
- ALL UTILITY TIE-INS TO EXISTING PUBLIC UTILITIES SHOULD BE COORDINATED WITH THE CITY OF WAUKEE ENGINEERING DEPARTMENT AND REQUIRES 48 HOUR NOTICE.
- FIRE DEPARTMENT CONNECTION WILL BE 2 - 2 1/2" CONNECTIONS WITH LOCKING KNOX CAPS.

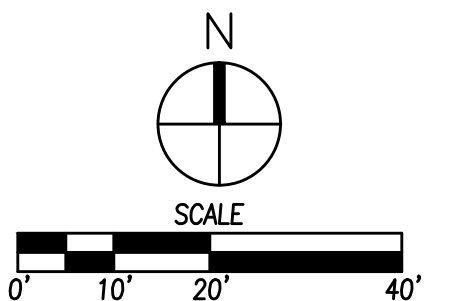
ST-3 REVETMENT



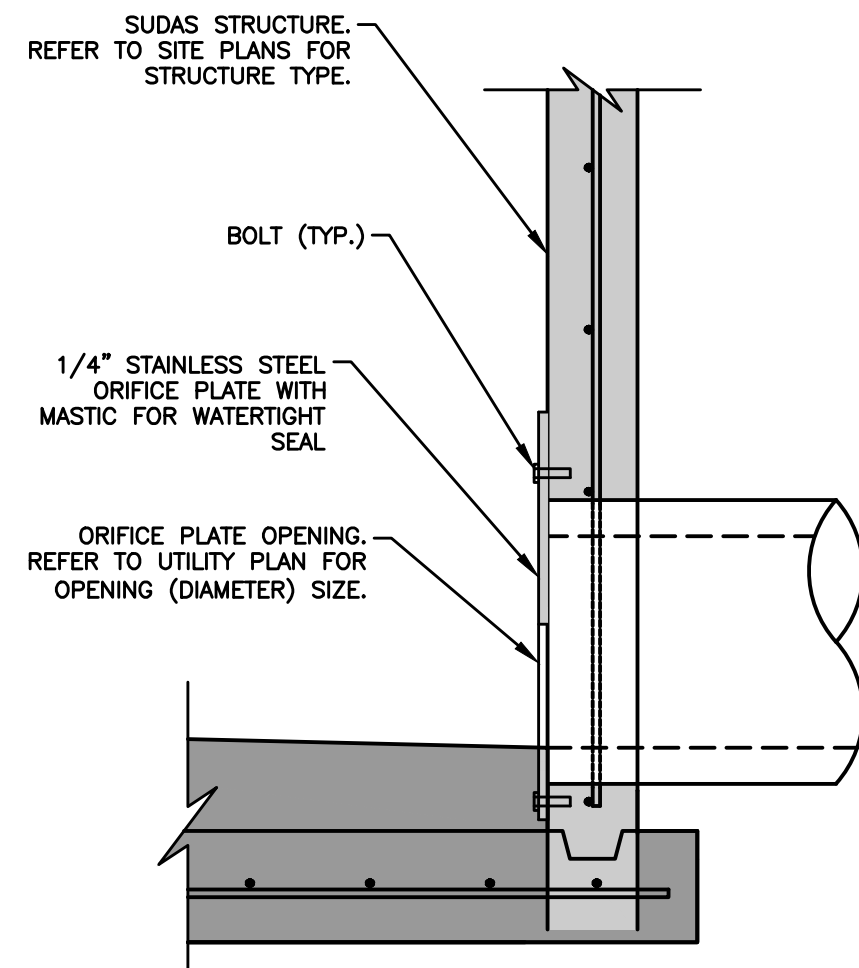
ST-8 REVETMENT



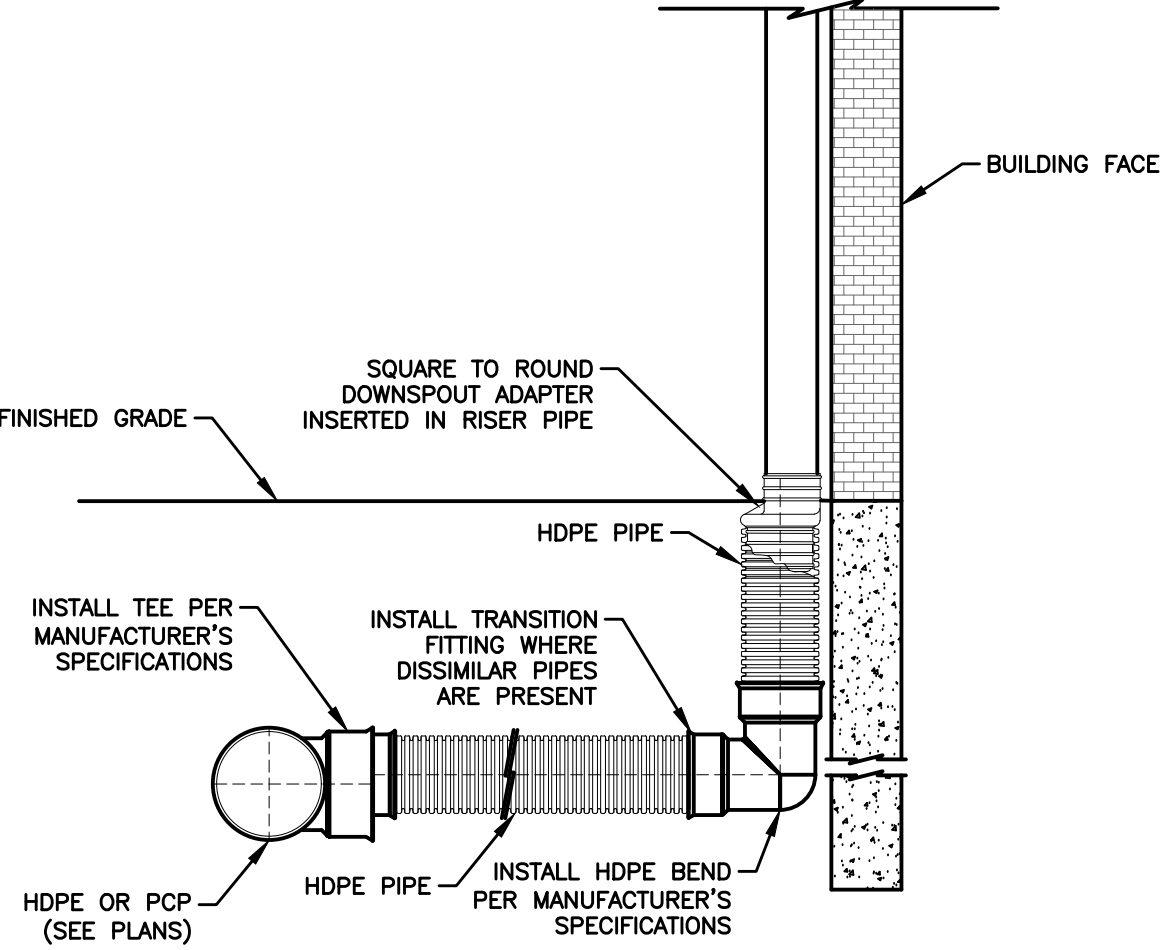
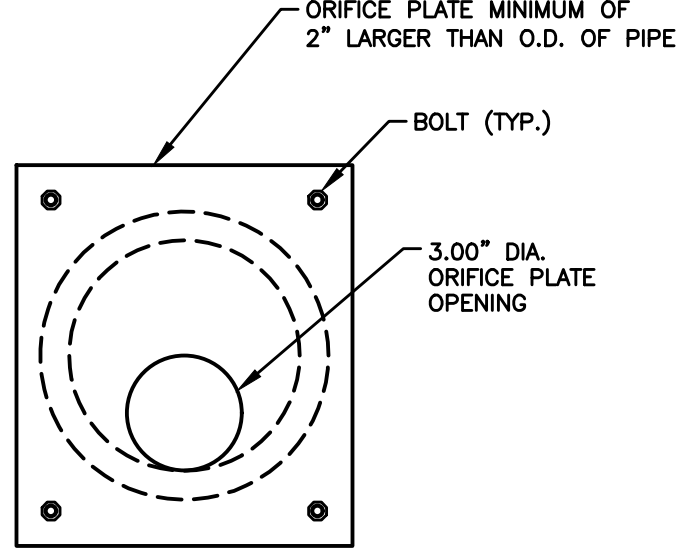
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 PLOTTED BY: NICOLE NEAL



DATE	
REVISIONS	
4121 NW URBANDALE DRIVE	ENGINEER:
URBANDALE, IA 50322	DRAFTED:
PHONE: (515) 369-4400	
FAX: (515) 369-4410	
Valvoline Business Division	
CIVIL DESIGN ADVANTAGE	
WAUKEE, IOWA	
UTILITY PLAN	
DATE:	08/09/2022
SHEET NUMBER:	C4.1
	2204.262



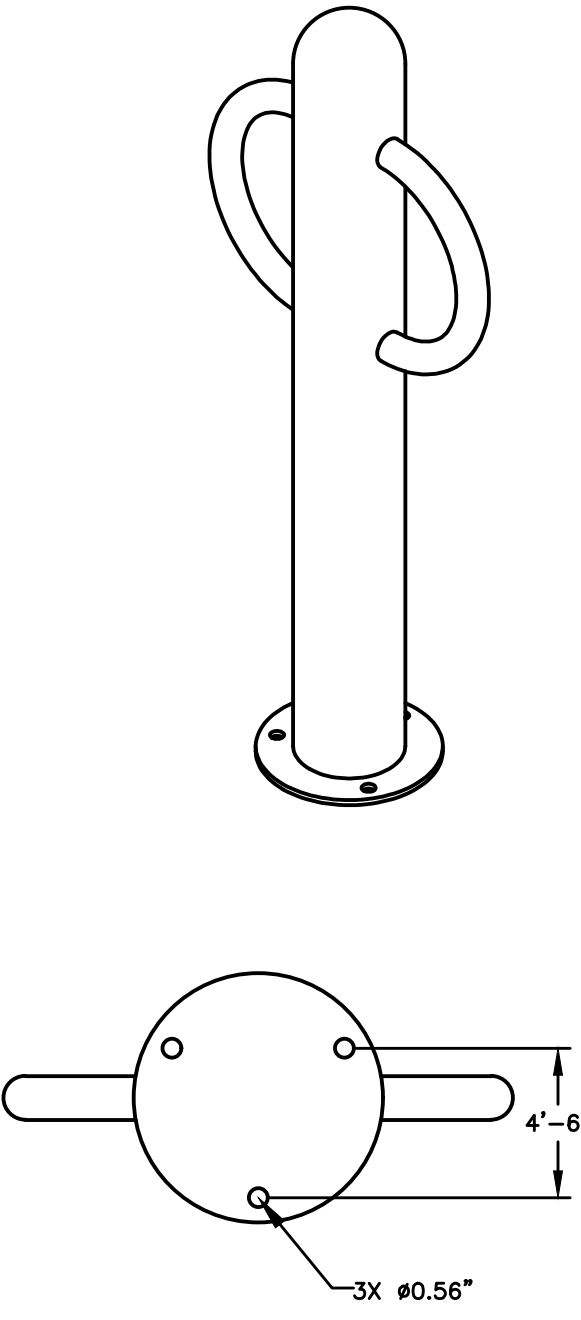
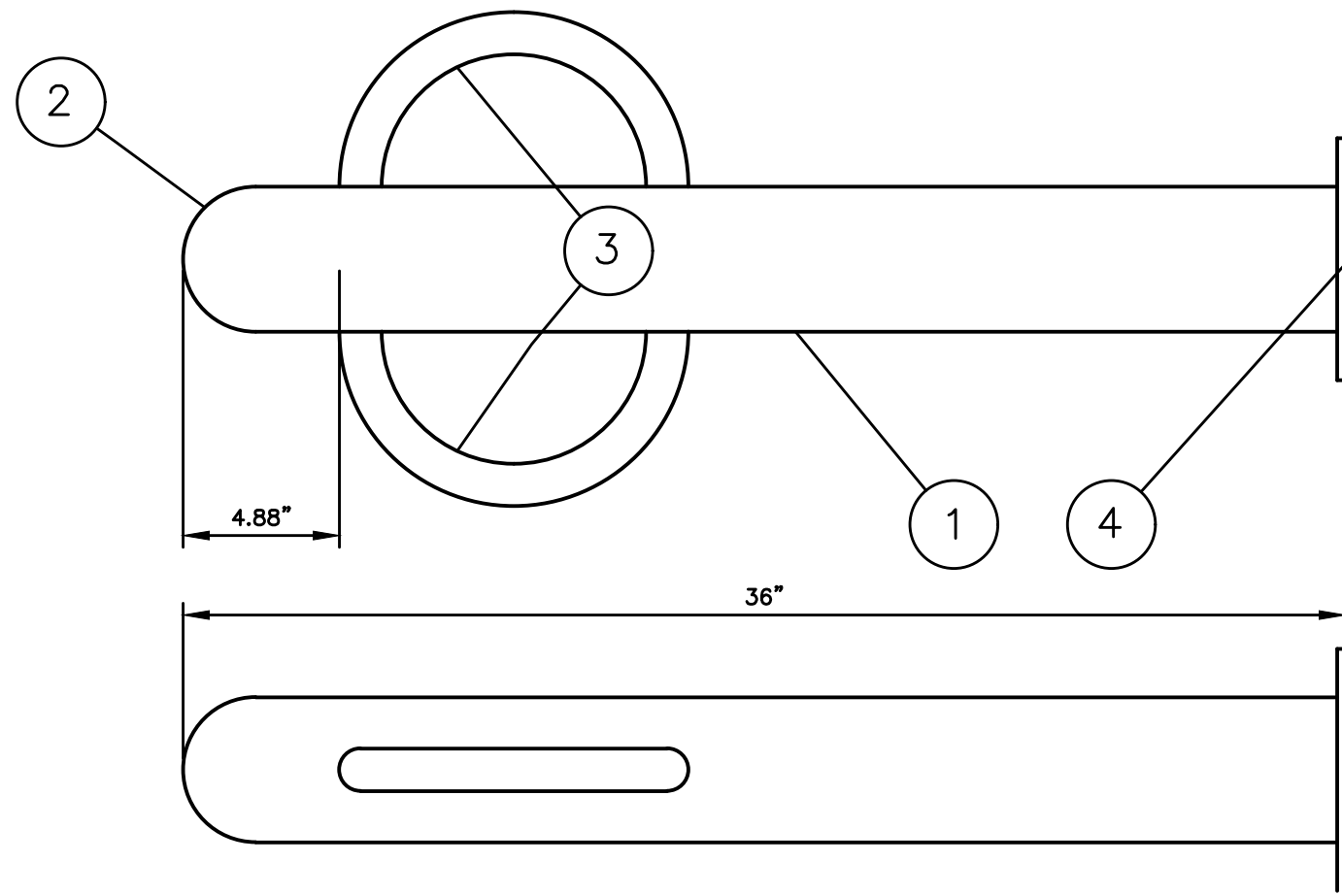
5 DETENTION ORIFICE PLATE
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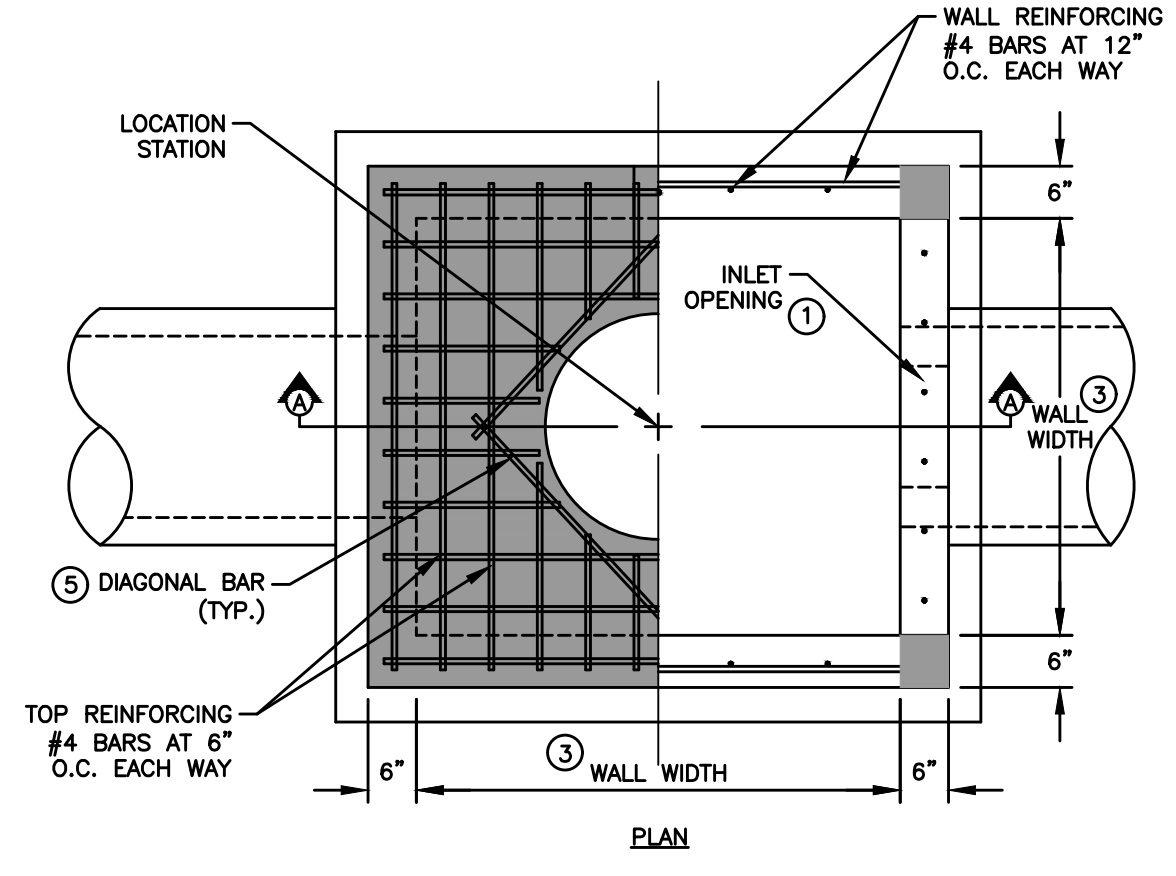
4 ROOF DRAIN CONNECTION WITH TEE
NOT TO SCALE

- MATERIALS LIST:**
1. TUBING - #4 1/2" x 1/8" WALL STEEL TUBING.
 2. CAP - #4 1/2" x 1/8" WALL STEEL DOME.
 3. LOOP - #1.315" x .133" WALL STEEL TUBING.
 4. SURFACE PLATE - #7 1/2" x 1/4" THICK STEEL PLATE WITH THREE #9/16" MOUNTING HOLES.
 5. MOUNTED WITH THREE #1/2" x 4-5" STAINLESS STEEL ANCHOR BOLTS (CUSTOMER SUPPLIED).

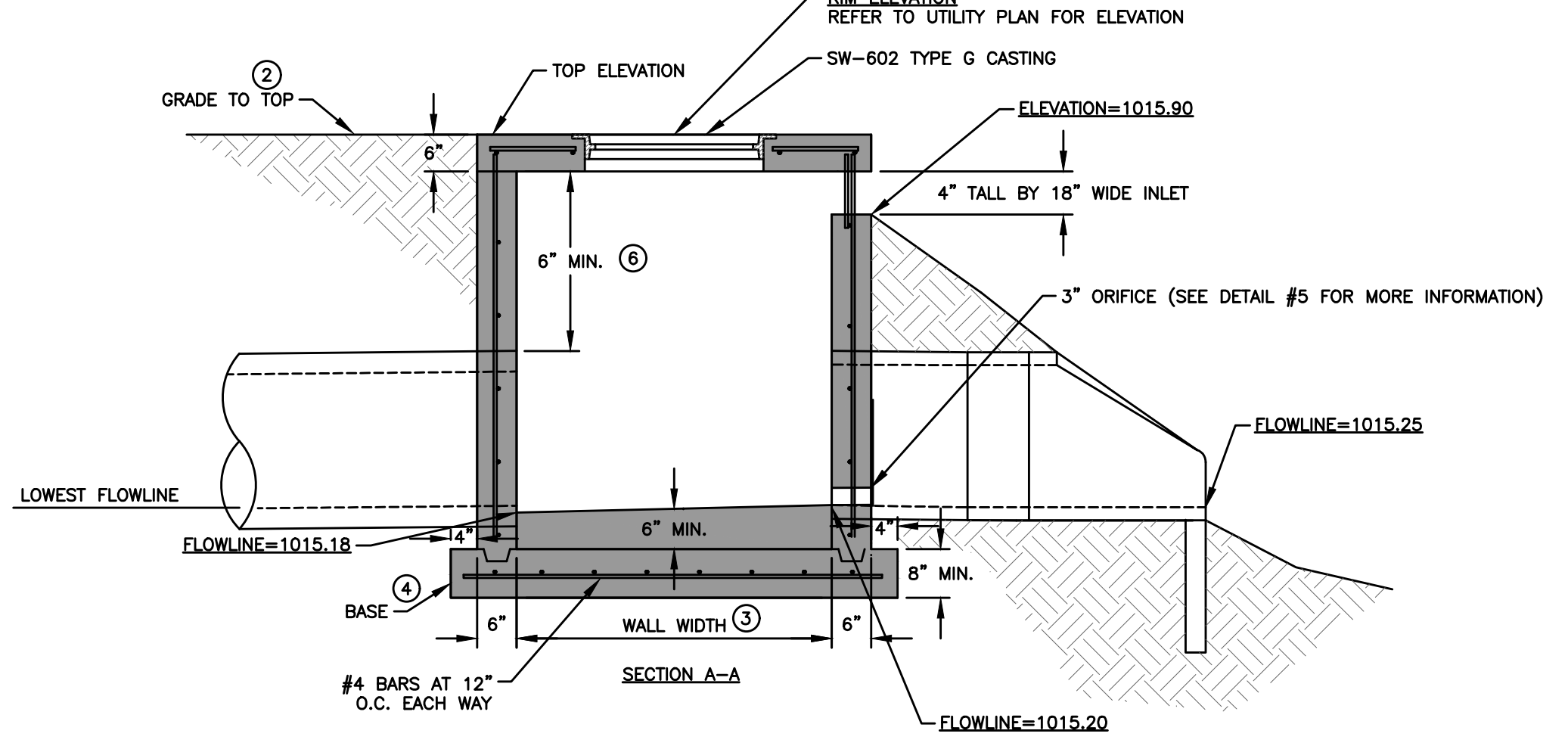
- NOTES:**
1. BIKE RACK TO BE INSTALLED IN CENTER OF 5'-0" x 6'-6" CONCRETE PAD.
 2. BOLLARD SHALL HAVE A BLACK POWDER COAT FINISH.



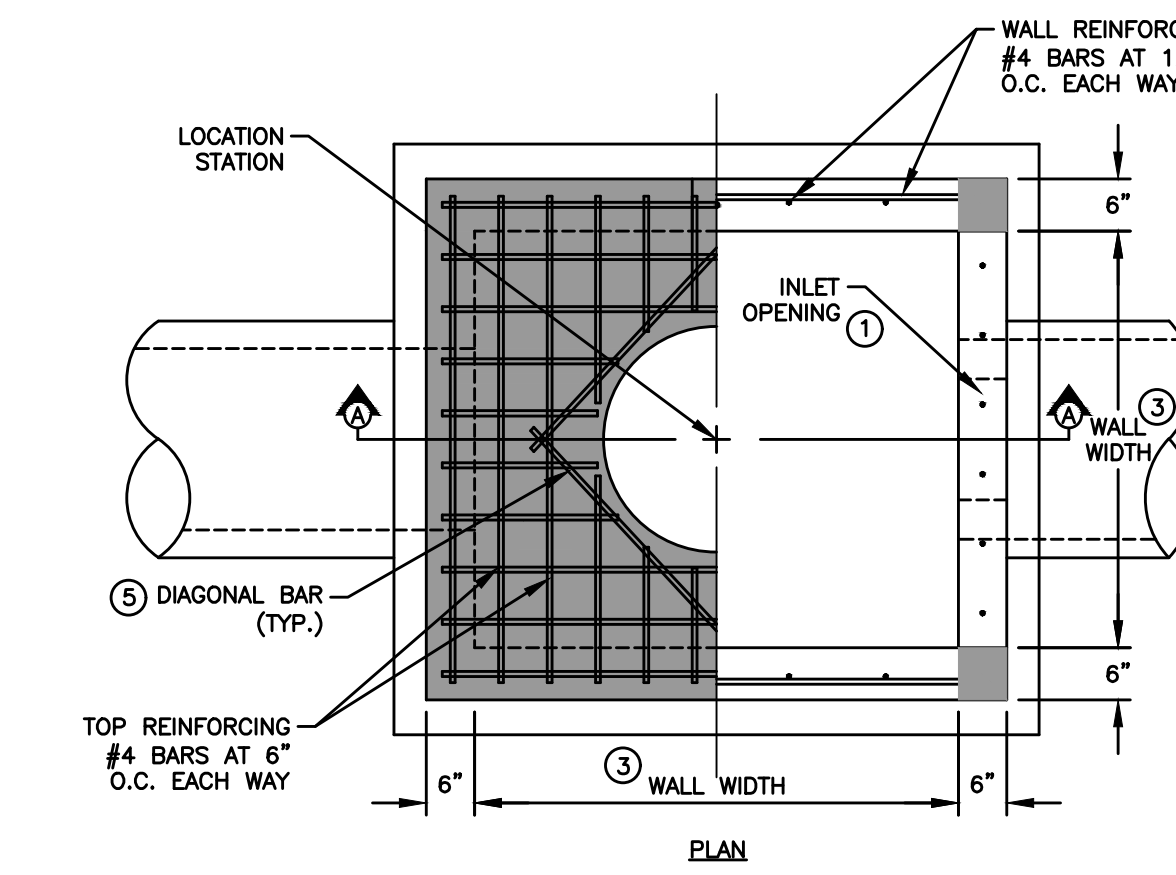
3 SITESCAPES BOLLARD BIKE RACK
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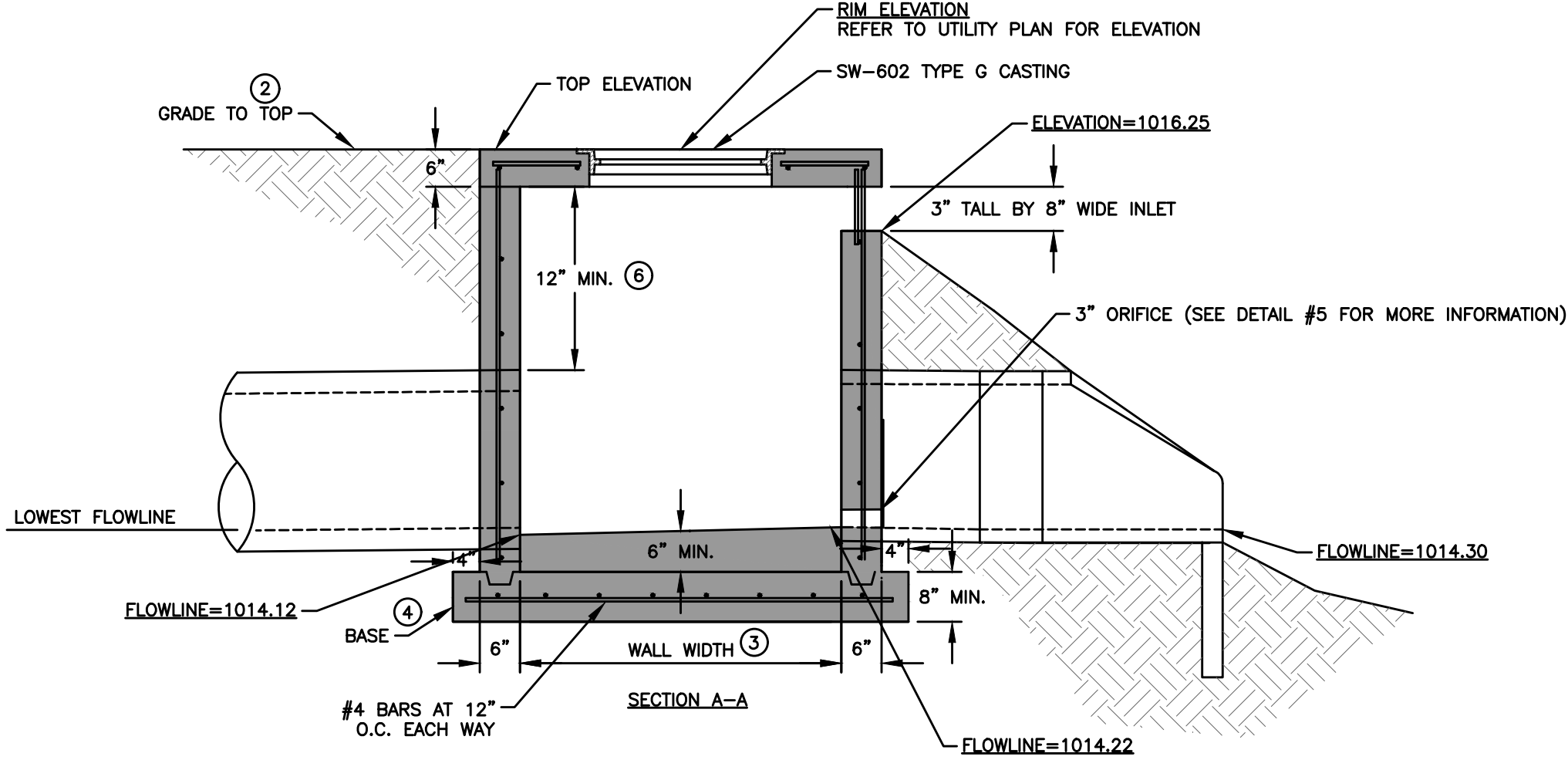
- STRUCTURE MAY BE BUILT WITH OPENINGS ON ANY OR ALL SIDES. PROVIDE OPENINGS AND ORIENTATION AS SPECIFIED IN THE CONTRACT DOCUMENTS.
- ADJACENT WALLS MAY HAVE DIFFERENT WIDTHS BASED UPON PIPE CONFIGURATION, BUT STRUCTURE MUST BE RECTANGULAR.
1. CONSTRUCT INLET OPENINGS WITH 15-INCH #4 EPOXY-COATED BARS AT 8 INCHES ON CENTER. EMBED BARS A MINIMUM OF 3 INCHES INTO WALLS AND TOP AT ALL OPENINGS.
 2. GRADE TO TOP ELEVATION ON CLOSED SIDES.
 3. WALL WIDTHS VARY WITH PIPE DIAMETER. PROVIDE 6 INCHES OF WALL WIDTH (MINIMUM) EACH SIDE OF PIPE OPENING. MINIMUM WALL WIDTH IS 36 INCHES. MAXIMUM WALL WIDTH IS 72 INCHES.
 4. CAST-IN-PLACE BASE SHOWN. IF BASE IS PRECAST INTEGRAL WITH WALLS, THE FOOTPRINT OF BASE IS NOT REQUIRED TO EXTEND BEYOND THE OUTER EDGE OF THE WALLS.
 5. INSTALL FOUR #4 DIAGONAL BARS AT ALL PIPE OPENINGS.
 6. 12" MINIMUM WALL HEIGHT ABOVE ALL PIPES.



2 SW-513 INTAKE - POND 2 OUTLET (ST-12)
NOT TO SCALE



- STRUCTURE MAY BE BUILT WITH OPENINGS ON ANY OR ALL SIDES. PROVIDE OPENINGS AND ORIENTATION AS SPECIFIED IN THE CONTRACT DOCUMENTS.
- ADJACENT WALLS MAY HAVE DIFFERENT WIDTHS BASED UPON PIPE CONFIGURATION, BUT STRUCTURE MUST BE RECTANGULAR.
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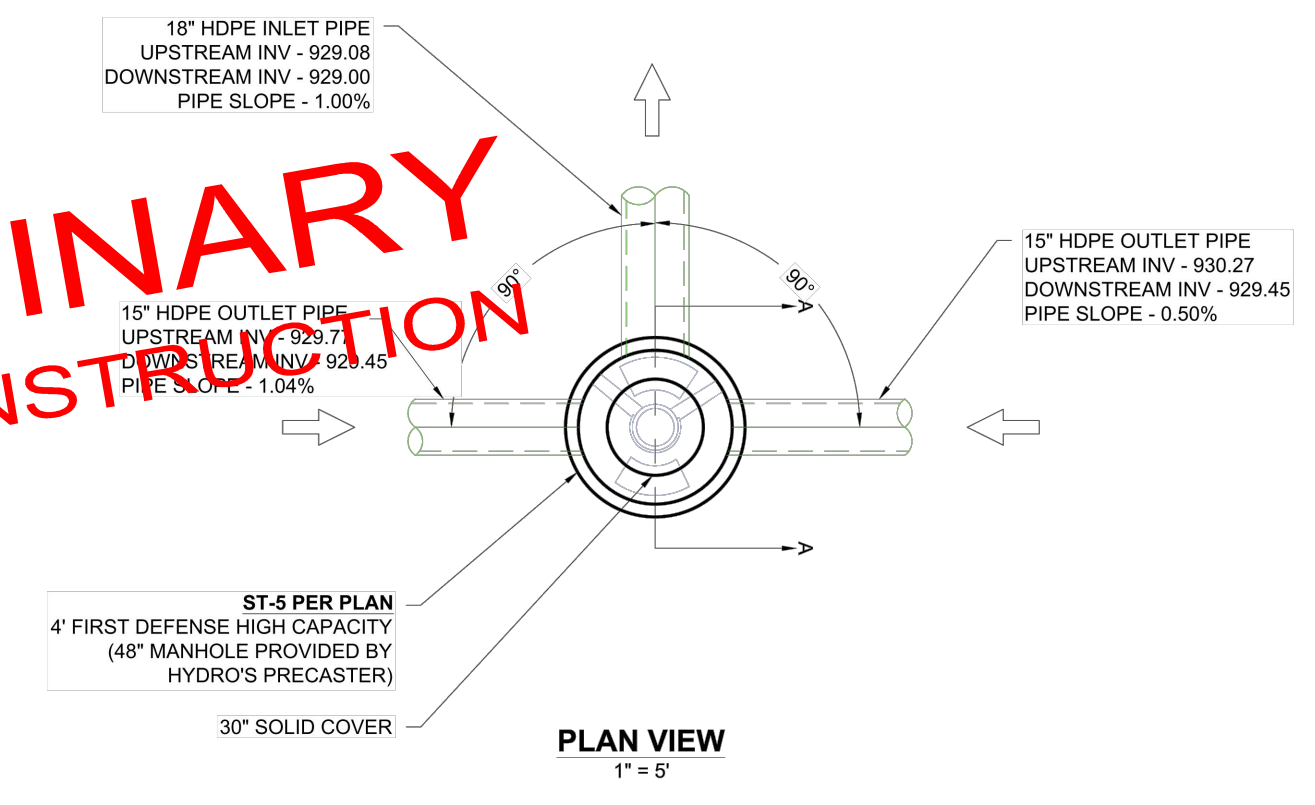
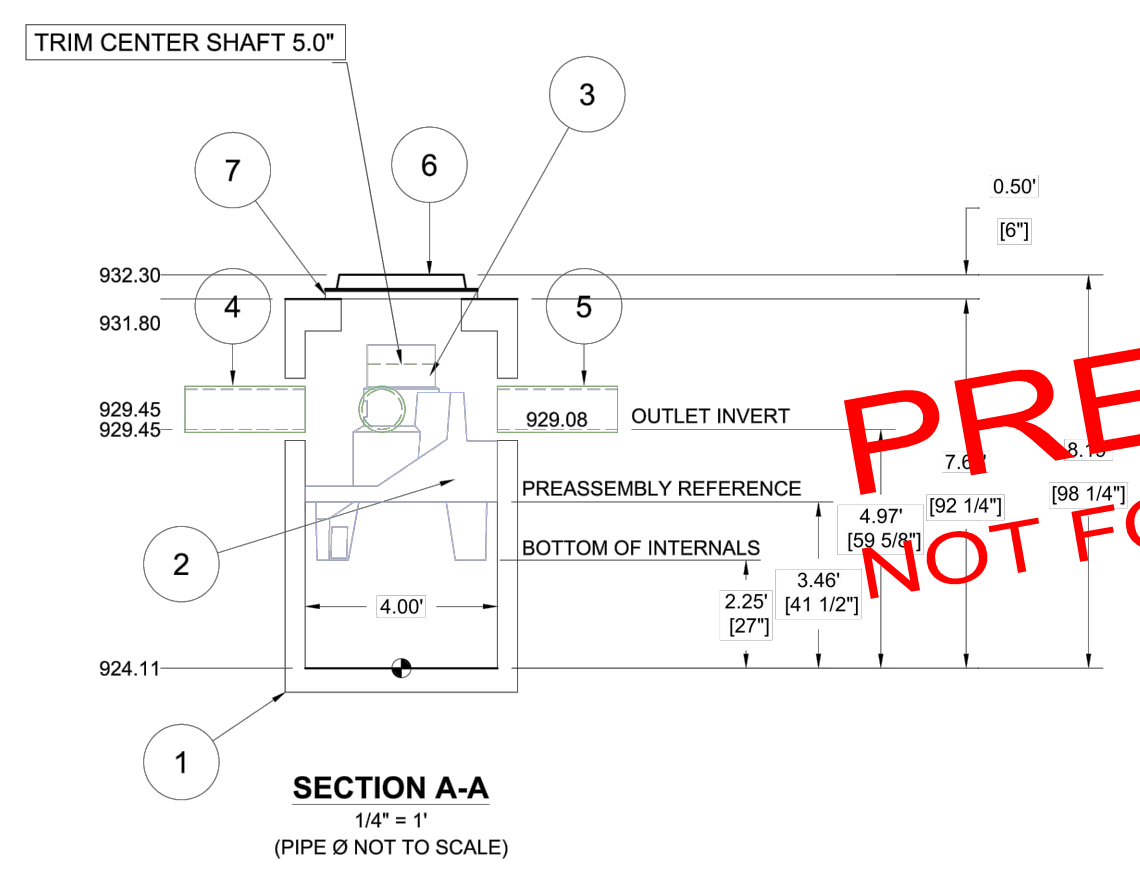
1 SW-513 INTAKE - POND 1 OUTLET (ST-2)
NOT TO SCALE

COMMENT: ENG.
 FILE DATE: 8/22
 PLOTTED BY: NICKOL NEAL
 DATE PLOTTED: 8/9/2022 4:30 PM

DATE	
REVISIONS	
4121 NW URBANDALE DRIVE URBANDALE, IA 50322 PHONE: (515) 369-4400 FAX: (515) 369-4410	DRAFTED:
Valvoline Infrastructure Division	ENGINEER:
VALVOLINE WAUKEE	WAUKEE, IOWA
DETAILS	
DATE: 08/09/2022	
SHEET NUMBER: C5.1	
2204.262	

PARTS LIST : 4' FIRST DEFENSE HIGH CAPACITY			
ITEM	SIZE (IN)	MATERIAL	DESCRIPTION
1	48	-	I.D. PRECAST MANHOLE
2	-	-	LEDGER SUPPORT
3	-	-	SEPARATION MODULE
4	15	HDPE	INLET PIPE (BY OTHERS)
5	18	HDPE	OUTLET PIPE (BY OTHERS)
6	30	-	FRAME & COVER
7	-	-	MATERIALS AND LABOR TO ACHIEVE FINAL GRADE (BY OTHERS)

NOTES:
ENGINEER / CONTRACTOR TO CONFIRM PIPE MATERIALS.



PRELIMINARY
NOT FOR CONSTRUCTION

KUM & GO
PLEASANT HILL, IA
DATE: 03/29/2022 DRAWN: NAL
PROJECT #: S289064 CHECKED: XXX

Hydro International
4640 TRUBMAN BLVD
HILLIARD, OH 43026
AS NOTED

2 SHEET OF 2

- MAINTENANCE:**
1. MAINTENANCE EVENTS MAY INCLUDE INSPECTION, OIL & FLOATABLES REMOVAL, AND SEDIMENT REMOVAL. MAINTENANCE EVENTS DO NOT REQUIRE ENTRY INTO THE FIRST DEFENSE, NOR DO THEY REQUIRE THE INTERNAL COMPONENTS OF THE FIRST DEFENSE TO BE REMOVED. IN THE CASE OF INSPECTION AND FLOATABLES REMOVAL, A VACTOR TRUCK IS NOT REQUIRED. HOWEVER, A VACTOR TRUCK IS REQUIRED IF THE MAINTENANCE EVENT IS TO INCLUDE OIL REMOVAL AND/OR SEDIMENT REMOVAL.
 2. INSPECTIONS SHOULD BE COMPLETED REGULARLY DURING FIRST YEAR OF INSTALLATION AND EVERY 6 MONTHS AFTER THE FIRST YEAR.
 3. OIL AND FLOATABLES SHOULD BE REMOVED ONCE PER YEAR AND ANYTIME FOLLOWING A SPILL IN THE DRAINAGE AREA.
 4. SEDIMENT SHOULD BE REMOVED ONCE PER YEAR OR AS NEEDED AND ANYTIME FOLLOWING A SPILL IN THE DRAINAGE AREA.

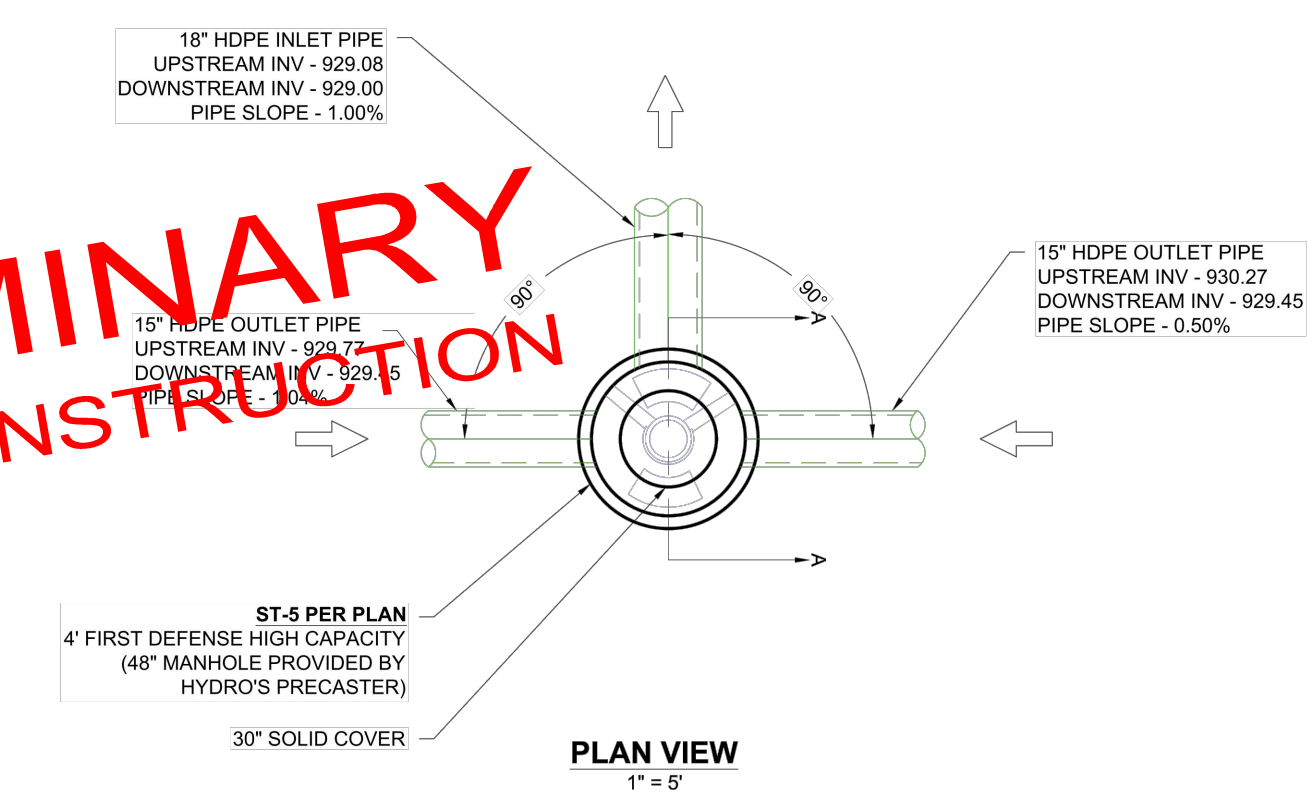
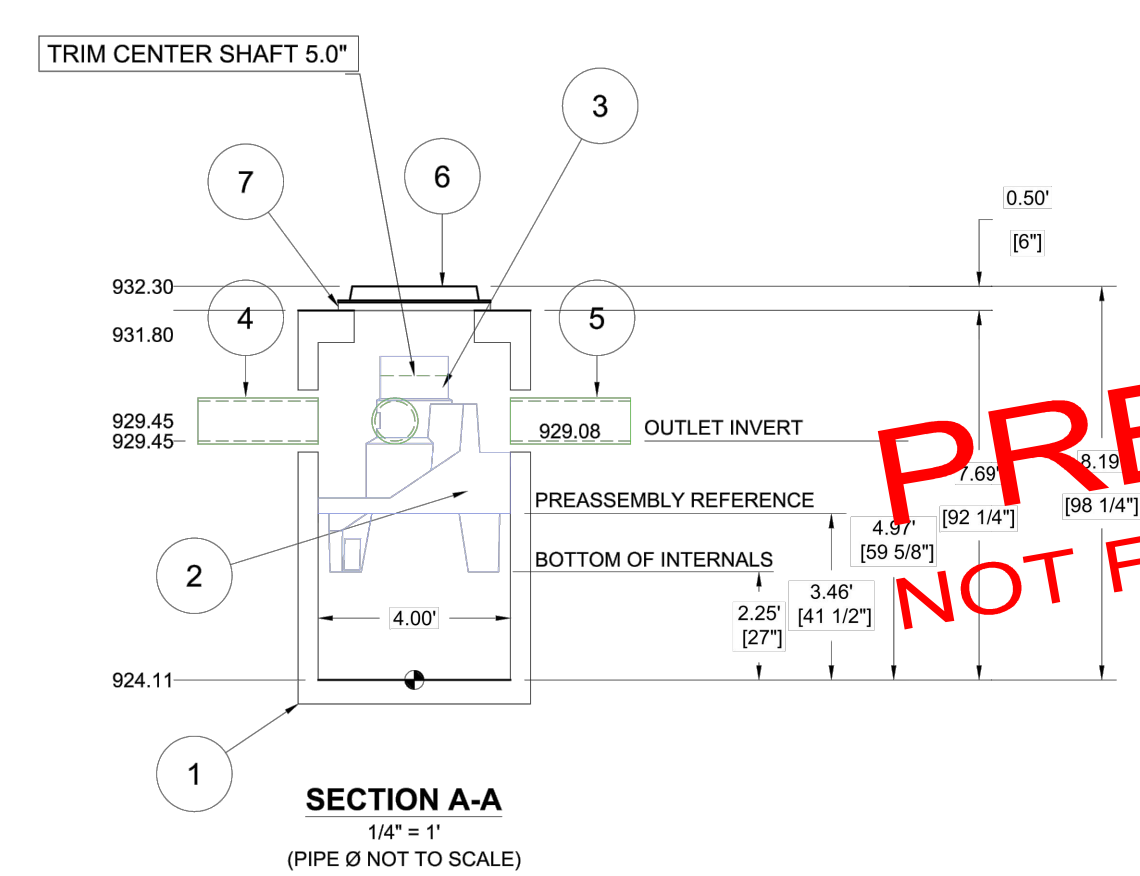
- GENERAL INSPECTION PROCEDURES:**
1. SET UP ANY NECESSARY SAFETY EQUIPMENT AROUND THE ACCESS PORT OR GRATE OF THE FIRST DEFENSE AS STIPULATED BY LOCAL ORDINANCES. SAFETY EQUIPMENT SHOULD NOTIFY PASSING PEDESTRIAN AND ROAD TRAFFIC THAT WORK IS BEING DONE.
 2. REMOVE THE GRATE OR LID TO THE MANHOLE.
 3. WITHOUT ENTERING THE VESSEL, LOOK DOWN INTO THE CHAMBER TO INSPECT THE INSIDE. MAKE NOTE OF ANY IRREGULARITIES. STANDING WATER SHOULD BE OBSERVED.
 4. WITHOUT ENTERING THE VESSEL, USE THE POLE WITH THE SKIMMER NET TO REMOVE FLOATABLES AND LOOSE DEBRIS FROM THE COMPONENTS AND WATER SURFACE.
 5. USING A SEDIMENT PROBE SUCH AS A SLUDGE JUDGE®, MEASURE THE DEPTH OF SEDIMENT THAT HAS COLLECTED IN THE SUMP OF THE VESSEL.
 6. RECORD THE DATE, UNIT LOCATION, ESTIMATED VOLUME OF FLOATABLES AND GROSS DEBRIS REMOVED, AND THE DEPTH OF SEDIMENT MEASURED ON A MAINTENANCE LOG. ALSO NOTE ANY APPARENT IRREGULARITIES SUCH AS DAMAGED COMPONENTS OR BLOCKAGES.
 7. SECURELY REPLACE THE GRATE OR LID.
 8. TAKE DOWN SAFETY EQUIPMENT.
 9. NOTIFY HYDRO INTERNATIONAL OF ANY IRREGULARITIES NOTED DURING INSPECTION.

NOTE:
1. A FULL GUIDE TO MAINTENANCE AND OPERATION CAN BE FOUND AT
[HTTPS://HYDRO-INT.COM/EN/PRODUCTS/FIRST-DEFENSE](https://hydro-int.com/en/products/first-defense)

2 ADS 4' FDHC HYDRODYNAMIC SEPARATOR (ST-9)
NOT TO SCALE

PARTS LIST : 4' FIRST DEFENSE HIGH CAPACITY			
ITEM	SIZE (IN)	MATERIAL	DESCRIPTION
1	48	-	I.D. PRECAST MANHOLE
2	-	-	LEDGER SUPPORT
3	-	-	SEPARATION MODULE
4	15	HDPE	INLET PIPE (BY OTHERS)
5	18	HDPE	OUTLET PIPE (BY OTHERS)
6	30	-	FRAME & COVER
7	-	-	MATERIALS AND LABOR TO ACHIEVE FINAL GRADE (BY OTHERS)

NOTES:
ENGINEER / CONTRACTOR TO CONFIRM PIPE MATERIALS.



PRELIMINARY
NOT FOR CONSTRUCTION

KUM & GO
PLEASANT HILL, IA
DATE: 03/29/2022 DRAWN: NAL
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Hydro International
4640 TRUBMAN BLVD
HILLIARD, OH 43026
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2 SHEET OF 2

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1 ADS 4' FDHC HYDRODYNAMIC SEPARATOR (ST-4)
NOT TO SCALE

COMMENT: ENG.
FILE DATE: 3/24/22
PLOTTED BY: NICKOLE NEAL

DATE: _____

REVISIONS: _____

4121 NW URBANDALE DRIVE
URBANDALE, IA 50322
PHONE: (515) 369-4400 FAX: (515) 369-4410

4640 TRUBMAN BLVD
HILLIARD, OH 43026

Valvoline
Engine Oil Change

Valvoline WAUKEE
DETAILS

WAUKEE, IOWA

DATE: 08/09/2022
SHEET NUMBER: C5.2
2204.262

