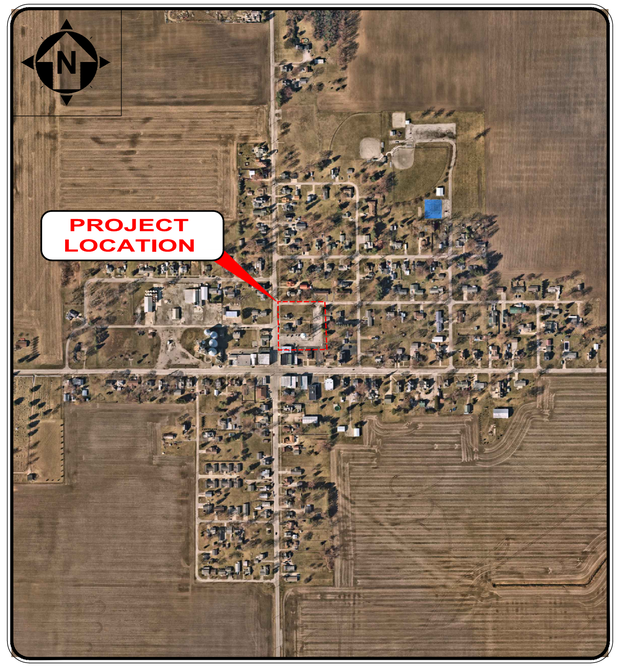
VILLAGE OF LYONS

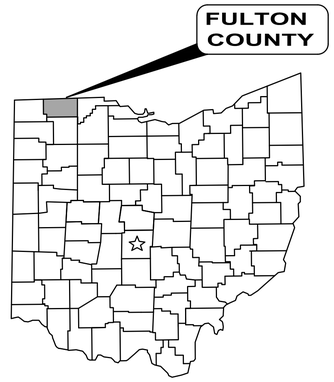
VILLAGE OF LYONS
WATER TOWER PROJECT

LYONS, OHIO

JANUARY 2026



LOCATION MAP
NOT TO SCALE



LYONS COUNCIL:

NELSON BARNHISER	MAYOR
DEBBIE CAMPBELL	FISCAL OFFICER
TANYA LUMBREZER	VILLAGE ADMIN
JOHN GOOD	COUNCIL
JULIE FENICLE	COUNCIL
MARK BRYSON	COUNCIL
AJ CALL	COUNCIL
JIMMY THORTON	COUNCIL
LANDON JOHNSON	COUNCIL

OWNER:

NELSON BARNHISER	MAYOR
DEBBIE CAMPBELL	FISCAL OFFICER

OHIO 811 DESIGN SERIAL NUMBER & UTILITY LIST:

TICKET #B232600365 - STATE ROUTE 534

TOLEDO EDISION:
341 WHITE POND DR, B3
AKRON, OH 44320
800-447-3333

BRIGHTSPEED (USIC):
833-692-7773
1120 SOUTH TRYON ST
CHARLOTTE, NC 28203

VILLAGE OF LYONS, WATER:
126 WEST MORENCI ST
LYONS, OH 43533
419-923-2001

OHIO GAS COMPANY:
715 EAST WILSON ST
BRYAN, OH 43506
800-331-7396

SPECTRUM:
1135 SOUTH MAIN ST, SUITE 210
BOWLING GREEN, OH 43402
866-874-2389

VILLAGE OF LYONS, SEWER:
126 WEST MORENCI ST
LYONS, OH 43533
419-923-2001

OHIO Utilities Protection SERVICE
Call Before You Dig
1-800-362-2764
CALL TWO WORKING DAYS BEFORE YOU DIG
(NON MEMBERS MUST BE CALLED DIRECTLY)

1. UNDERGROUND BUILDING SERVICE UTILITY LINES ARE NOT SHOWN ON THE PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING, MAINTAINING AND REPLACING AS NECESSARY TO ENSURE CONTINUAL SERVICE TO BUILDINGS.

2. THE CONTRACTOR IS RESPONSIBLE TO CALL OHIO UTILITIES PROTECTION SERVICE @ 1-800-362-2764, THREE WORKING DAYS PRIOR TO CONSTRUCTION.

your trusted advisor consultants engineers architects planners

ENGINEER'S PROJECT No. 220792

OFFICE:

VILLAGE OF LYONS
VILLAGE HALL
126 WEST MORENCI STREET
LYONS, OH 43533

(419) 923-2001 PHONE
(419) 923-3729 FAX

PROJECT SITE:

LOCATED IN THE PARKING LOT ON THE CORNER OF N ADRIAN STREET AND CLEVELAND AVE

ENGINEER:

CT CONSULTANTS, INC.
3875 EMBASSY PARKWAY
SUITE 200
AKRON, OH 44333

(330) 375-0800 PHONE
(330) 665-0620 FAX

STATE OF OHIO
ALAN FRYGIER PE90367
REGISTERED PROFESSIONAL ENGINEER

Alan Frygier P.E.
ALAN E. FRYGIER, P.E.

1/7/2026
DATE

BID SET

your trusted advisor consultants engineers architects planners

NO	REVISION	DATE

ISSUED FOR: BID SET
ISSUE DATE: 12/2/2025
SCALE: AS SHOWN
DESIGNED BY: AMM
DRAWN BY: AMM
CHECKED BY: RLM

VILLAGE OF LYONS
VILLAGE OF LYONS
WATER TOWER PROJECT
FULTON COUNTY LYONS, OHIO
GENERAL - 00 SERIES
COVER SHEET

PROJECT NO. 220792
DISCIPLINE GENERAL
SHEET NAME 00G-01
SHEET 1 OF 21

SERIES INFORMATION:

SERIES No:	DESCRIPTION:
00	GENERAL
01	WATER TOWER SITE
10	WATER TOWER FACILITY
20	WATER TREATMENT PLANT IMPROVEMENTS
30	CONSTRUCTION DETAILS
E	ELECTRICAL
SWP3	STORM WATER POLLUTION PREVENTION PLAN - SWP3 SERIES

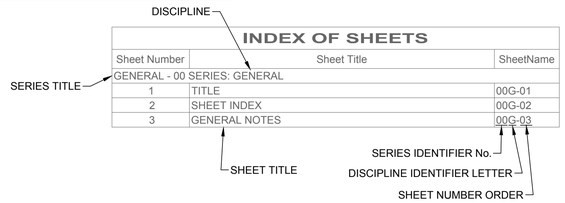
DISCIPLINE INFORMATION:

IDENTIFIER:	DISCIPLINE:
G	GENERAL
C	CIVIL
S	STRUCTURAL
A	ARCHITECTURAL
D	PROCESS
M	MECHANICAL (PLUMBING & HVAC)
E	ELECTRICAL
Y	INSTRUMENTATION

GENERAL ABBREVIATIONS:

AR	AIR RELEASE VALVE	MV	MUD VALVE
AV	AIR & VACUUM VALVE	N	NORTHING
BA	BALL VALVE	OH	OVERHEAD
BFV	BUTTERFLY VALVE	PD	PLUG DRAIN VALVE
BK	BACKPRESSURE VALVE	PF	PRESSURE RELIEF
BM	BENCH MARK	PG	PRESSURE REGULATOR
BP	BACKFLOW PREVENTER	PI	PINCH VALVE
CB	CATCH BASIN	PR	PROPOSED
CL	CENTER LINE	PRV	PRESSURE REDUCING VALVE
CO	CONE VALVE	PT	PRESSURE TEMPERATURE RELIEF
CPP	CORRUGATED PLASTIC PIPE	PV	PLUG VALVE
CV	CHECK VALVE	PVC	POLYVINYL CHLORIDE PIPE
DIP	DUCTILE IRON PIPE	R/W	RIGHT OF WAY
E	EASTING	RJ	RESTRAINED JOINT
EG	EXISTING GRADE	SAN	SANITARY
EL	ELEVATION	SCH	SCHEDULE
EX	EXISTING	SB	SOIL BORING
FG	FINISHED GRADE	SDR	STANDARD DIAMETER RATIO
FH	FIRE HYDRANT	SS	STAINLESS STEEL
FL	FLANGED	STA	STATION
FRP	FIBERGLASS REINFORCED PLASTIC	STL	STEEL PIPE
FTG	FITTING	STM	STORM
GL	GLOBE VALVE	SU	SURGE VALVE
GS	GALVANIZED STEEL	SV	SOLENOID VALVE
GV	GATE VALVE	TYP	TYPCIAL
HDPE	HIGH-DENSITY POLYETHYLENE PIPE	UG	UNDERGROUND
KG	KNIFE GATE VALVE	VB	VALVE BOX
KN	KNIFE VALVE	WAT	WATER
MH	MANHOLE	WV	WATER VALVE
MIN	MINIMUM		
MJ	MECHANICAL JOINT		

INDEX EXPLAINATION:



GENERAL SYMBOLOGY NOTES:

1. THIS IS A STANDARD SHEET SHOWING COMMONLY USED SYMBOLOGY.
2. ALL SYMBOLS ARE NOT NECESSARILY USED ON THIS PROJECT.
3. SCREENING OR SHADING OF WORK IS USED TO INDICATE EXISTING COMPONENTS OR TO DE-EMPHASIZE NEW IMPROVEMENTS SO AS TO HIGHLIGHT SPECIFIC TRADE WORK. REFER TO CONTEXT OF EACH SHEET FOR USAGE.
4. SYMBOLOGY OR DIAGRAMMATICAL LEGENDS MAY BE SHOWN ON INDIVIDUAL SHEETS FOR SCHEDULES, DIAGRAMS, DETAILS, SCHEMATICS OR EQUIPMENT.

DRAWING CODED NOTE TYPES:

1. CT CONTRACTUAL NOTES ARE DEPICTED WITH A HEXAGON, SQUARE, CIRCLE OR TRIANGLE. ALL OTHER EXISTING WRITTEN CALLOUTS SHOWN ON THE REUSED SCANNED PLANS, SECTIONS & DETAILS ARE FOR EXISTING CONDITIONS AND REFERENCE ONLY, MANY OF THOSE NOTES FROM THE SCANNED DRAWINGS PERTAIN TO PREVIOUS WORK DONE.

PLAN REVISIONS:

- (A) REVISION DESCRIPTION
- (B) REVISION DESCRIPTION

DEMOLITION CODED NOTES:

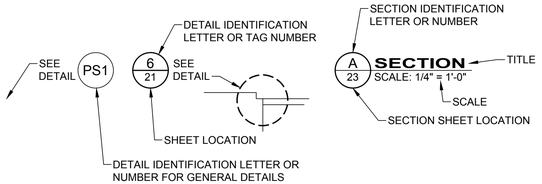
- [1] DEMOLITION DESCRIPTION
- [2] DEMOLITION DESCRIPTION

REFERENCE DIMENSION:

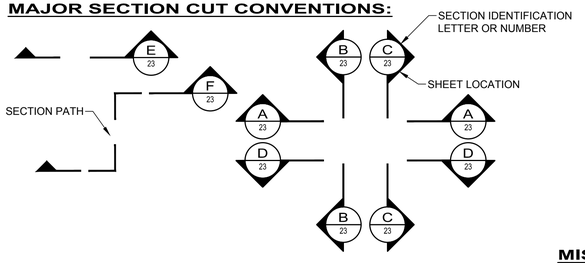
12'-4" (REF.)

REFERENCE DIMENSIONS ARE GIVEN FOR INFORMATION ONLY. THEY ARE CALCULATED DIMENSIONS NOT INTENDED TO BE USED WITHOUT FIELD VERIFICATION AND ARE USEFUL IN SHOWING INTENDED DESIGN.

DETAIL REFERENCES:



MAJOR SECTION CUT CONVENTIONS:



SITE SYMBOL LEGEND:

EX:	PR:	
MB	MB	POST, MAILBOX
		POST, SIGN
		POST, SIGN - DOUBLE
		POST, SIGN - DUAL
		GEOTECH - SOIL BORING
		BUSH
		TREE, DECIDUOUS
		TREE, EVERGREEN
		TREE, STUMP
		NAIL - MAG
		PIN - IRON
		PIPE - IRON
		SPIKE
GM	GM	GAS METER
		GAS VALVE
		GAS VENT
		WELDED PIPING
		FLG PIPING
		MJ PIPING
		FLEXIBLE CONNECTOR
		PIPE THROUGH SECTION
		PIPE CONTINUOUS BREAK
		PIPE BASE SUPPORT
		CONCRETE PIPE SUPPORT
		POLE - ELECTRIC (POWER)
		POLE - GENERAL
		POLE - GUY
		POLE - GUY ANCHOR
		POLE - LIGHT
		SANITARY CLEAN-OUT
S	S	SANITARY MANHOLE - 48"
V	V	SANITARY VENT
		CATCH BASIN - 2X2
		CURB INLET - 2X3
		STORM CLEAN-OUT
		STORM DRAIN
D	D	STORM MANHOLE - 48"
		WATER HYDRANT, FDC
		WATER HYDRANT, FIRE
WV	WV	WATER VALVE W/TEXT

SITE LINE LEGEND:

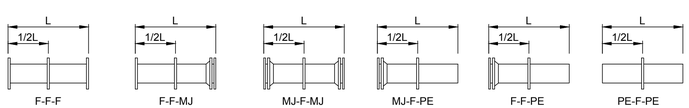
EX:

- EX. R/W — RIGHT-OF-WAY
- PROPERTY LINE
- BUILDING OUTLINES
- 650 — CONTOURS - MAJOR
- 648 — CONTOURS - MINOR
- SLOPE LINE
- SLOPE - BREAKLINE
- SLOPE - TOP
- SLOPE - TOE
- WATER CENTERLINE
- WATER EDGE
- EDGE OF ROAD
- FENCE - GENERAL
- FENCE - CHAIN LINK
- GUIDE RAIL
- TREE LINE
- ELEC — ELECTRIC LINE
- ELEC-OH — ELECTRIC LINE - OH
- ELEC-UG — ELECTRIC LINE - UG
- GAS — GAS LINE
- GS — GAS SERVICE
- SAN — SANITARY LINE
- STM — STORM LINE
- WAT — WATER LINE
- WS — WATER SERVICE

PR:

- UTIL-OH — UTILITY LINE - OH
- UTIL-UG — UTILITY LINE - UG
- US — UTILITY SERVICE
- US-OH — UTILITY SERVICE - OH
- US-UG — UTILITY SERVICE - UG
- TEL-OH — TELEPHONE LINE - OH
- TEL-UG — TELEPHONE LINE - UG
- ELEC-OH — ELECTRIC LINE - OH
- ELEC-UG — ELECTRIC LINE - UG
- GAS — GAS LINE
- GS — GAS SERVICE
- SAN — SANITARY LINE
- FM — SANITARY FORCE MAIN
- SS — SANITARY SERVICE
- STM — STORM LINE
- WAT — WATER LINE
- WS — WATER SERVICE
- SAN — UTILITY WITH CASING PIPE
- CENTERLINE
- DRIVE CENTERLINE
- PAVEMENT SAWCUT
- GUIDE RAIL
- FENCE - BARB WIRE
- FENCE - CHAIN LINK
- DITCH CENTERLINE
- STORM CULVERT LINE
- EDGE OF PAVEMENT
- CENTERLINE
- PERMANENT CONSTRUCTION EASEMENT LINE (PCE)
- TEMPORARY CONSTRUCTION EASEMENT LINE (TCE)
- WORK LIMITS

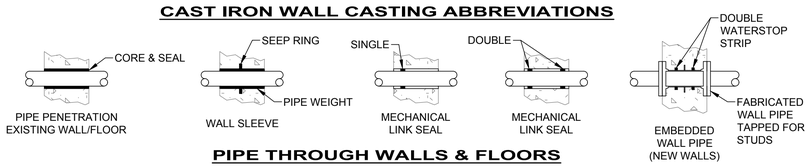
MISC PIPE SYMBOLOGY



NOTE:

WALL CASTINGS REQUIRING BELL ENDS IN LIEU OF MJ SHALL BE NOTED AS "B", ALL FLANGED (F) AND MECHANICAL JOINT (MJ) FLUSH WITH WALL ARE TO BE DRILLED, AND TAPPED FOR STUDS.

CAST IRON WALL CASTING ABBREVIATIONS



PIPE THROUGH WALLS & FLOORS

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GENERAL MATERIAL HATCHES:

- PROPOSED PAVEMENT (PLAN)
- EXISTING BUILDING (PLAN)
- PROPOSED RIP RAP AREA (PLAN / SECTION)
- PROPOSED GRAVEL DRIVE AREA (PLAN / SECTION)
- PROPOSED CONCRETE DRIVE AREA (PLAN)
- EXISTING EARTHEN MATERIAL (SECTION / ELEVATION)
- PROPOSED EARTHEN MATERIAL (SECTION / ELEVATION)
- CONCRETE (PLAN / SECTION / ELEVATION)
- PRECAST CONCRETE (PLAN / SECTION / ELEVATION)
- GROUT (PLAN / SECTION / ELEVATION)
- GRATING (PLAN)
- GRATING (SECTION)
- METAL OR STEEL (SECTION)
- DENOTES ITEM OR AREA FOR DEMOLITION

BID SET

your trusted advisor — consultants — engineers architects planners

NO	REVISION	DATE

ISSUED FOR:	BID SET
ISSUE DATE:	10/1/2025
SCALE:	AS SHOWN
DESIGNED BY:	AMM
DRAWN BY:	AMM
CHECKED BY:	RLM

VILLAGE OF LYONS
VILLAGE OF LYONS WATER TOWER PROJECT
FULTON COUNTY LYONS, OHIO

GENERAL - 00 SERIES
LEGENDS SYMBOLOGY & SHEET INDEX

PROJECT NO. 220792
DISCIPLINE GENERAL
SHEET NAME 00G-02
SHEET 2 OF 21

1. PROHIBITED CONSTRUCTION ACTIVITIES

A. DISPOSING OF EXCESS OR UNSUITABLE EXCAVATED MATERIAL IN WETLANDS OR FLOODPLAINS, EVEN WITH THE PERMISSION OF THE PROPERTY OWNER;

B. LOCATING STOCKPILE STORAGE AREAS IN ENVIRONMENTALLY SENSITIVE AREAS;

C. INDISCRIMINATE, ARBITRARY, OR CAPRICIOUS OPERATION OF EQUIPMENT IN ANY STREAM CORRIDORS, ANY WETLANDS, ANY SURFACE WATERS, OR OUTSIDE THE EASEMENT LIMITS;

D. PUMPING OF SEDIMENT-LADEN WATER FROM TRENCHES OR OTHER EXCAVATIONS DIRECTLY INTO ANY SURFACE WATERS, ANY STREAM CORRIDORS, ANY WETLANDS, OR STORM SEWERS; ALL SUCH WATER WILL BE PROPERLY FILTERED OR SETTLED TO REMOVE SILT PRIOR TO RELEASE;

E. DISCHARGING POLLUTANTS SUCH AS CHEMICALS, FUELS, LUBRICANTS, BITUMINOUS MATERIALS, RAW SEWAGE AND OTHER HARMFUL WASTE INTO OR ALONGSIDE OF RIVERS, STREAMS, IMPOUNDMENTS, OR INTO NATURAL OR MAN-MADE CHANNELS LEADING THERETO;

F. PERMANENT OR UNSPECIFIED ALTERATION OF THE FLOW LINE OF ANY STREAM;

G. DAMAGING VEGETATION OUTSIDE OF THE CONSTRUCTION AREA;

H. DISPOSAL OF TREES, BRUSH, AND OTHER DEBRIS IN ANY STREAM CORRIDORS, ANY WETLANDS, ANY SURFACE WATERS, OR AT UNSPECIFIED LOCATIONS;

I. OPEN BURNING OF PROJECT DEBRIS WITHOUT A PERMIT;

J. DISCHARGING INJURIOUS SILICA DUST CONCENTRATIONS INTO THE ATMOSPHERE RESULTING FROM BREAKING, CUTTING, CHIPPING, RILLING, BUFFING, GRINDING, POLISHING, SHAPING OR SURFACING CLOSER THAN 200 FEET TO PLACES OF RESIDENCES OR COMMERCIAL, PROFESSIONAL, QUASI-PUBLIC OR PUBLIC PLACES OF HUMAN OCCUPATION;

K. STORING CONSTRUCTION EQUIPMENT AND VEHICLES AND/OR STOCKPILING CONSTRUCTION MATERIALS ON PROPERTY, PUBLIC OR PRIVATE, NOT PREVIOUSLY SPECIFIED ON THE PLANS BY THE ENGINEER FOR SUCH PURPOSES;

L. RUNNING WELL POINT OR PUMP DISCHARGE LINES THROUGH PRIVATE PROPERTY OR PUBLIC PROPERTY AND RIGHTS-OF-WAY WITHOUT THE WRITTEN PERMISSION OF THE PROPERTY OWNER AND THE CONSENT OF THE ENGINEER;

M. OPERATIONS ENTAILING THE USE OF VIBRATORY HAMMERS OR COMPACTORS OUTSIDE THE HOURS OF 8:00 AM AND 5:00 P.M. OR OUTSIDE THE HOURS ALLOWED FOR CONSTRUCTION BY LOCAL ORDINANCES OR REGULATIONS; AND

N. NO CLOSING OFF CLEAR ACCESS TO ANY PUBLIC ALLEY, STREET, ROAD, AVENUE OR BOULEVARD WITHOUT THE PRIOR CONSENT OF MUNICIPAL OFFICIALS AND THE ENGINEER, AND CLOSING CLEAR ACCESS:

- BY FIRE PROTECTION EQUIPMENT AND EMERGENCY VEHICLES;

- BY THE PUBLIC TO ANY COMMERCIAL OR PROFESSIONAL PLACE OF BUSINESS, QUASI-PUBLIC OR PUBLIC ESTABLISHMENT, OR PLACE OF RESIDENCE; OR

- BY VEHICLES TO DRIVEWAYS WITHOUT THE PROVISION OF ALTERNATIVE MEANS OF BUILDING INGRESS AND EGRESS.

2. MITIGATIVE MEASURES

EROSION/SEDIMENT CONTROL

1. SITE CLEARING AND GRUBBING SHALL NOT COMMENCE UNTIL SUCH TIME THAT THE CONTRACTOR IS PREPARED TO START CONSTRUCTION. REMOVE ONLY THOSE TREES, SHRUBS, AND GRASSES THAT MUST BE REMOVED FOR CONSTRUCTION OF ACTUAL FACILITIES; PROTECT THE REST TO PRESERVE THEIR AESTHETIC, HABITAT, AND EROSION CONTROL VALUES.
2. IMMEDIATELY FOLLOWING SITE AND ACCESS CLEARING, TEMPORARY EROSION AND SEDIMENTATION CONTROLS SHALL BE INSTALLED. THEY WILL BE MAINTAINED IN EFFECTIVE OPERATING CONDITION DURING CONSTRUCTION UNTIL FINAL SEEDING AND SITE RESTORATION OCCURS.
3. AT THE WATER TOWER CONSTRUCTION SITE, INSTALL SEDIMENT BASINS AND DIVERSION DIKES BEFORE DISTURBING THE LAND THAT DRAINS INTO THEM.
4. DIVERSION CHANNELS WILL BE CONSTRUCTED AROUND THE WATER TOWER CONSTRUCTION SITE TO COLLECT RUNOFF AND PREVENT SILT AND OTHER ERODIBLE MATERIALS FROM ENTERING LOCAL DRAINAGE COURSES. DIVERSION CHANNELS WILL FLOW TO TEMPORARY SEDIMENT BASINS, AND ARE TO BE STABILIZED THROUGH SEEDING, RIP-RAPPING, OR LINING THEM WITH PLASTIC.
5. EXISTING TOPSOIL WILL BE STOCKPILED AND REPLACED UPON FINAL GRADING OF THE WATER TOWER CONSTRUCTION SITE.
6. EXTENSIVE AREAS OF STOCKPILED TOPSOIL AT THE WATER TOWER CONSTRUCTION SITE ARE TO BE PROTECTED THROUGH THE USE OF TEMPORARY SEEDING AND MULCHING OR COVERING SUCH AS WITH ANCHORED STRAW MULCH. SILT BARRIERS WILL BE INSTALLED DOWN GRADIENT OF THESE AREAS ON CONTOUR AND WITH THEIR ENDS UP SLOPE OF THE CONTOUR TO PREVENT SILT LADEN RUNOFF FROM ENTERING WATERWAYS OR STORM SEWERS. WITHIN 15 DAYS OF COMPLETION OF CONSTRUCTION, ANY REMAINING SOIL MUST EITHER BE REMOVED OR PERMANENTLY STABILIZED.
7. SILT FENCES SHOULD BE TRENCHED SIX TO TWELVE INCHES DEEP, THE FABRIC LAID IN THE TRENCH, AND THE SOIL PROPERLY BACKFILLED INTO THE TRENCH TO PREVENT UNDERCUTTING.
8. WHERE TRENCH EXCAVATION OCCURS PARALLEL TO ANY WATERWAY, A VEGETATED BARRIER SHOULD BE MAINTAINED BETWEEN THE STREAM AND THE CONSTRUCTION SITE. ALL TRENCH SPOILS WILL BE STOCKPILED ON THE SIDE OF THE TRENCH AWAY FROM THE WATERWAY, AND A LINE OF SILT BARRIERS WILL BE ESTABLISHED ALONG THE EDGE OF CONSTRUCTION ON THE CONTOUR BETWEEN THE TRENCH AND THE WATERWAY.
9. NO MORE THAN 200 FEET OF TRENCH SHALL BE OPEN AT ANY GIVEN TIME. TRENCH OPENING AND LAYING OF PIPE SHOULD OCCUR SO AS TO MINIMIZE THE AMOUNT OF DISTURBED AREA. ALL TRENCHES ARE TO BE BACKFILLED AND COMPACTED IMMEDIATELY AFTER PIPE INSTALLATION. IMMEDIATELY FOLLOWING THE BACKFILLING OF THE TRENCH, THE GROUND SURFACE WILL BE ROUGH GRADED TO THE EXISTING CONTOURS TO ALLOW FOR PROPER DRAINAGE, AND WILL BE SEEDED AND/OR MULCHED IN STAGES TO PREVENT EROSION.
10. ANY DISTURBED AREA THAT WILL NOT BE ACTIVELY UNDER CONSTRUCTION FOR A PERIOD OF 15 DAYS OR MORE WILL BE TEMPORARILY STABILIZED IMMEDIATELY BY SEEDING AND MULCHING OR BY ANCHORED STRAW MULCH.
11. AS CONSTRUCTION IS COMPLETED, PERMANENTLY STABILIZE EACH DISTURBED AREA IN STAGES WITH PERENNIAL VEGETATION INSTALLED ACCORDING TO OHIO EPA (OR EQUIVALENT) STANDARDS AND SPECIFICATIONS. AFTER FINAL SOIL SETTLING OVER THE SANITARY SEWER, OUTFALL SEWER, AND FORCE MAIN ALIGNMENTS, THE CONTRACTOR SHALL BRING THE TRENCH BACK TO GRADE IF NECESSARY, PLACE TOPSOIL, AND FINE GRADE, SEED, FERTILIZE, AND MULCH ALL AREAS DISTURBED BY ACTIVITIES ASSOCIATED WITH THE CONSTRUCTION OF THAT SECTION OF PIPE. FINAL GRADING WILL BE CONSISTENT WITH PRE-CONSTRUCTION TOPOGRAPHY FOR DRAINAGE AND AESTHETIC REASONS.
12. BORING PITS (FOR JACK AND BORE LOCATIONS) SHALL BE SURROUNDED WITH SILT BARRIERS TO PREVENT EROSION OF THE EXCAVATED PIT MATERIAL. STORM SEWER INLETS WILL BE SURROUNDED WITH SILT BARRIERS TO PREVENT SILTATION.
13. SLOPES EXCEEDING 15 PERCENT OR THAT TEND TO BE UNSTABLE REQUIRE SPECIAL TREATMENT SUCH AS WATER DIVERSION BERMS, SODDING, OR THE USE OF JUTE OR EXCELSIOR BLANKETS.
14. WHEN BORROW MATERIAL IS OBTAINED FROM OTHER THAN COMMERCIALLY OPERATED SOURCES, EROSION OF THE BORROW SITE WILL BE SO CONTROLLED BOTH DURING AND AFTER COMPLETION OF THE WORK THAT EROSION WILL BE MINIMIZED AND SEDIMENT WILL NOT ENTER STREAMS OR OTHER BODIES OF WATER. WASTE OR DISPOSAL AREAS AND CONSTRUCTION ROADS SHALL BE LOCATED AND CONSTRUCTED IN A MANNER THAT WILL KEEP SEDIMENT FROM ENTERING STREAMS. TEMPORARY EROSION CONTROL BARRIERS AND LIMITED SITE CLEARING WILL BE USED AS NEEDED.
15. IF WORK IS SUSPENDED FOR ANY REASON, THE CONTRACTOR SHALL MAINTAIN THE SOIL EROSION AND SEDIMENTATION CONTROLS IN GOOD OPERATING CONDITION DURING THE SUSPENSION OF THE WORK. ALSO, WHEN SEASONAL CONDITIONS PERMIT AND THE SUSPENSION OF WORK IS EXPECTED TO EXCEED A PERIOD OF ONE MONTH, THE CONTRACTOR SHALL SEED, FERTILIZE, AND MULCH ALL DISTURBED AREAS LEFT EXPOSED WHEN THE WORK IS STOPPED.
16. INSTALL THE ABOVE EROSION AND SEDIMENT CONTROL MEASURES, AS APPROPRIATE, REFERRING TO OHIO EPA, STORM WATER TECHNICAL ASSISTANCE, RAINWATER AND LAND DEVELOPMENT MANUAL STANDARDS AND SPECIFICATIONS (FORMERLY ODNR) OR EQUIVALENT FOR PARTICULAR TECHNIQUES. THESE MEASURES ARE TO BE MAINTAINED IN EFFECTIVE WORKING CONDITION DURING CONSTRUCTION AND UNTIL ALL DISTURBED AREAS HAVE BEEN PERMANENTLY STABILIZED.
    LINK:
    HTTPS://EPA.OHIO.GOV/DIVISIONS-AND-OFFICES/SURFACE-WATER/
    GUIDES-MANUALS/RAINWATER-AND-LAND-DEVELOPMENT

2. MITIGATIVE MEASURES - CONTINUED

TRAFFIC CONTROL

17. AT LEAST ONE LANE OF TRAFFIC MUST BE MAINTAINED ALONG THE TRAVEL ROUTE TO THE CONSTRUCTION SITE.
18. ACCESS MUST BE MAINTAINED FOR EMERGENCY VEHICLES AT ALL TIMES.
19. NO TRENCH WILL BE LEFT OPEN AT THE END OF A WORK DAY, WHERE PRACTICAL; ANY OPEN TRENCH WILL BE PROPERLY IDENTIFIED AND BARRICADED FOR SAFETY PURPOSES.
20. ANY CONSTRUCTION EQUIPMENT OR EXCAVATIONS NEAR ROADS MUST BE MARKED WITH LIGHTS, REFLECTORS, OIL LANTERNS, OR SMUDGE POTS.
21. THE CONTRACTOR SHALL PROVIDE, ERECT AND MAINTAIN ALL NECESSARY BARRICADES, WARNING SIGNS, DANGER SIGNALS, FLAG PERSON(S), WATCHERS, AND ALL OTHER APPROPRIATE PRECAUTIONS NECESSARY FOR THE PROTECTION OF THE WORK AND FOR SAFETY.
22. PRIOR TO CLOSING OFF CLEAR ACCESS TO ANY PUBLIC ALLEY, STREET, ROAD, AVENUE, OR BOULEVARD, THE CONTRACTOR MUST HAVE CONSENT FROM LOCAL OFFICIALS AND THE ENGINEER.

AIR POLLUTION / NOISE CONTROL

23. CONSTRUCTION ACTIVITIES WILL BE LIMITED TO DAYTIME HOURS.
24. CONSTRUCTION EQUIPMENT WILL BE PROVIDED WITH INTAKE SILENCERS AND MUFFLERS, AS REQUIRED BY SAFETY STANDARDS.
25. ALL CONSTRUCTION VEHICLES SHOULD BE EQUIPPED WITH PROPER EMISSIONS CONTROL EQUIPMENT.
26. PERIODICALLY CHECK EQUIPMENT AND MACHINERY FOR PROPER TUNING TO MINIMIZE EXHAUST EMISSIONS AND NOISE.
27. UNPAVED AREAS WILL BE WET DOWN (AS NECESSARY) DURING CONSTRUCTION TO MINIMIZE DUST GENERATION.

TREE / VEGETATION PROTECTION

28. TREE REMOVAL WILL BE LIMITED TO THAT NECESSARY FOR CONSTRUCTION AND WILL BE LIMITED FURTHER TO THE PERMANENT EASEMENT WHEREVER POSSIBLE.
29. NO TREE REMOVAL WILL BE PERMITTED OUTSIDE THE TEMPORARY EASEMENT WITHOUT PERMISSION OF THE ENGINEER.
30. TREES WHICH ARE NOT REMOVED WILL BE PROTECTED BY ENSURING THAT TREES TO BE REMOVED ARE FELLED SO AS NOT TO INJURE THE REMAINING TREES.
31. PRIOR TO CLEARING, THE CONTRACTOR AND ENGINEER, SHALL WALK THE ACQUIRED EASEMENTS IN AN EFFORT TO DESIGNATE THE TREES THAT ARE TO BE SAVED. TREES TO BE SAVED WILL BE CLEARLY MARKED BY PAINT WITH THE LETTER "S". TREES TO BE PROTECTED BY AN APPROPRIATE BARRIER SHALL BE MARKED WITH AN "S" ENCLOSED IN A CIRCLE.
32. SOIL AND OTHER MATERIAL WILL NOT BE STORED NEXT TO OR WITHIN THE DRIP-LINE OF TREES.
33. PRESERVATION OF LANDSCAPING SHOULD TAKE PRECEDENCE OVER REMOVAL. IF REMOVAL OR DAMAGE IS UNAVOIDABLE, EXISTING VEGETATION SHOULD BE REPAIRED OR REPLACED "IN-KIND" UNLESS THE HOMEOWNER SPECIFIES OTHERWISE.
34. IF TREES/SHRUBS CANNOT BE REPLACED IN THE SAME LOCATION DUE TO INSTALLATION OF IMPROVEMENTS, RELOCATION SHOULD BE CONSIDERED.
35. THE CONTRACTOR'S ARBORIST SHALL REPAIR ALL INJURIES TO BARK, TRUNKS, LIMBS, AND ROOTS OF REMAINING VEGETATION BY PROPERLY DRESSING, CUTTING, BRACING AND PAINTING, USING ONLY APPROVED TREE SURGERY METHODS, TOOLS, AND MATERIALS.
36. SELECTIVE PRUNING OF TREE LIMBS PRIOR TO INITIATION OF CONSTRUCTION SHOULD ONLY BE USED WITHIN ESTABLISHED EASEMENTS WHERE REMOVAL IS NECESSARY FOR OPERATION OF EQUIPMENT.
37. LIMIT THE USE OF RIP-RAP TO AREAS WHERE STREAM FLOW CONDITIONS PREEMPT VEGETATIVE STABILIZATION.

DEWATERING

38. ALL DEWATERING FLOWS ARE TO BE SETTLED IN SILTATION BASINS OR DIRECTED THROUGH FILTERING DEVICES BEFORE DISCHARGE TO STABILIZED SITES, SUCH AS STREAMS OR STORM SEWERS; NOT ONTO EXPOSED SOILS, STREAM BANKS, OR ANY OTHER SITE WHERE THE FLOW COULD CAUSE EROSION.
39. SILT FROM CONSTRUCTION OPERATIONS SHALL NOT BE PERMITTED TO ENTER THE STORM SEWER SYSTEM. WHEN CONSTRUCTION OCCURS NEAR STORM SEWER INLETS, EROSION CONTROL MEASURES SUCH AS INLET FILTERS AND HAY BALES SHALL BE USED TO PREVENT SILT FROM ENTERING THE STORM SEWERS.
40. CONVEY WATER FROM THE CONSTRUCTION SITE IN A CLOSED CONDUIT. DO NOT USE TRENCH EXCAVATIONS AS TEMPORARY DRAINAGE DITCHES.

ARCHAEOLOGICAL / HISTORICAL RESOURCES

41. CONTRACTORS AND SUBCONTRACTORS ARE REQUIRED UNDER OHIO REVISED CODE (O.R.C.) SECTION 149.53, TO NOTIFY THE OHIO'S STATE HISTORIC PRESERVATION OFFICE (SHPO), AND TO COOPERATE WITH THAT OFFICE IN ARCHAEOLOGICAL AND HISTORIC SURVEYS AND MITIGATION EFFORTS IF SUCH DISCOVERIES ARE UNCOVERED WITHIN THE PROJECT AREA.

    CONTACT: OHIO STATE HISTORIC PRESERVATION OFFICE
    DIANA WELLING, RESOURCE PROTECTION & REVIEW DEPARTMENT MANAGER
    PHONE: 1-614-298-2000
    EMAIL: DWELLING@OHIOHISTORY.ORG

GROUND WATER AND DRINKING WATER PROTECTION

42. REPORT ALL SPILLS TO THE APPLICANT AND TO THE OHIO EPA SPILL HOTLINE AT 1-800-282-9378.
43. POST THE OHIO EPA EMERGENCY SPILL HOTLINE NUMBER (1-800-282-9378) AT THE PROJECT SITE.

BID SET

your trusted advisor consultants — engineers architects planners

NO	REVISION	DATE

ISSUED FOR:
ISSUE DATE: 10/1/2025
SCALE: AS SHOWN
DESIGNED BY: AAM
DRAWN BY: AAM
CHECKED BY: RLM

VILLAGE OF LYONS
VILLAGE OF LYONS WATER TOWER PROJECT
FULTON COUNTY LYONS, OHIO

GENERAL - 00 SERIES
OHIO EPA GENERAL NOTES

PROJECT NO. 220792
DISCIPLINE GENERAL
SHEET NAME 00G-03
SHEET 3 OF 21

GENERAL:

1. THE CONTRACTOR SHALL PERFORM ALL OF THE WORK AND FURNISH ALL OF THE LABOR AND MATERIALS NECESSARY FOR THE FINAL COMPLETION OF THIS CONTRACT IN THE MANNER AND UNDER THE CONDITIONS HEREIN SPECIFIED AND PROVIDED AND IN ACCORDANCE WITH THE CONTRACT DRAWINGS.

2. THE CONTRACTOR SHALL NOTIFY THE VILLAGE OF LYONS (419) 923-2001 A MINIMUM OF FIVE (5) WORKING DAYS PRIOR TO THE START OF CONSTRUCTION TO ARRANGE A PRE-CONSTRUCTION MEETING. NO WORK SHALL BEGIN UNTIL A PRE-CONSTRUCTION MEETING HAS BEEN HELD.

3. A PRE-CONSTRUCTION VIDEO TAPE OF THE PROJECT AREA WILL BE REQUIRED AND SUBMITTED TO THE ENGINEER BEFORE CONSTRUCTION BEGINS.

4. ACCESS TO ALL DRIVEWAYS WILL BE MAINTAINED AT ALL TIMES EXCEPT THE TIME WHEN UTILITY INSTALLATION AND PAVEMENT REPLACEMENT WILL NOT PERMIT.

5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SECURING A SITE FOR DISPOSAL OF ALL EXCAVATED MATERIAL THAT IS UNSUITABLE FOR USE AS BACKFILL AND ALL OTHER EXCESS EXCAVATED MATERIALS. THE CONTRACTOR SHALL PROVIDE THE VILLAGE WITH THE LOCATION OF THE DISPOSAL SITE AND WRITTEN PERMISSION FOR USE OF THE SITE FROM THE PROPERTY OWNER.

6. ALL OVER-THE-ROAD VEHICLES USED ON THE PROJECT BY ALL CONTRACTORS AND SUBCONTRACTORS WILL BE CLEARLY MARKED SHOWING ITS COMPANY SYMBOL.

7. BEFORE THE VILLAGE WILL APPROVE AND ACCEPT THE WORK AND RELEASE THE GUARANTY RETAINER, THE CONTRACTOR WILL FURNISH THE VILLAGE OF LYONS A WRITTEN REPORT INDICATING THE RESOLUTION OF ANY AND ALL PROPERTY DAMAGE CLAIMS FILED WITH THE CONTRACTOR BY ANY PARTY DURING THE CONSTRUCTION PERIOD. THE INFORMATION TO BE SUPPLIED SHALL INCLUDE, BUT NOT BE LIMITED TO, NAME OF CLAIMANT, DATE FILED WITH CONTRACTOR, NAME OF INSURANCE COMPANY AND/OR ADJUSTOR HANDLING CLAIM, HOW CLAIM WAS RESOLVED AND IF CLAIM WAS NOT RESOLVED FOR THE THE FULL AMOUNT, A STATEMENT INDICATING THE REASON FOR SUCH ACTION.

8. MATERIALS FOR "AS-DIRECTED" ITEMS SHALL NOT BE ORDERED OR DELIVERED TO THE PROJECT SITE OR WORK PERFORMED UNTIL AUTHORIZED BY THE ENGINEER.

9. ALL SHOP DRAWINGS WILL BE SUBMITTED TO THE ENGINEER FOR CHECKING.

10. THE CONTRACTOR SHALL NOTIFY THE VILLAGE OF LYONS POLICE AND FIRE DEPARTMENTS AND THE VILLAGE ADMINISTRATOR AT LEAST 48 HOURS IN ADVANCE OF ANY STREET CLOSING OR TRAFFIC CHANGE.

11. THE CONTRACTOR SHALL PERFORM WORK AS TO NOT DISTURB, DAMAGE OR DESTROY ANY MAILBOX, PAPERBOX, TELEPHONE OR POWER POLES, SIGNS, LANDSCAPING ITEMS, ETC.. ANY ITEM DAMAGED OR DESTROYED SHALL BE REPLACED AT THE CONTRATOR'S EXPENSE. ANY ITEM DISTURBED OR IN CONFLICT WITH THE WORK TO BE PERFORMED SHALL BE REMOVED AND RESET AT THE CONTRACTOR'S EXPENSE. PRIOR ENGINEER APPROVAL IS REQUIRED BEFORE ANY OF THE ABOVE ITEMS ARE PERFORMED.

12. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO APPLY, WHEN ORDERED BY THE OWNER, WATER OR CALCIUM CHLORIDE FOR THE ALLEVIATION OR PREVENTION OF DUST NUISANCE ORIGINATING FROM HIS CONSTRUCTION ACTIVITIES. SUFFICIENT QUANTITIES OF CALCIUM CHLORIDE SHALL BE STORED ON THE JOB SITE AT ALL TIMES TO BE USED FOR DUST CONTROL. THE COST OF DUST CONTROL SHALL BE INCLUDED IN THE UNIT BID PRICES FOR ALL ITEMS OF THE PROPOSAL.

13. ALL SOIL AREAS DISTURBED SHALL BE TOPSOILED (4" THICK), SEEDED AND MULCHED. ALL TOPSOIL WORK INSIDE THE STREET RIGHT-OF-WAY SHALL BE INCLUDED IN THE UNIT BID PRICES FOR ALL ITEMS OF THE PROPOSAL.

14. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CONSTRUCTION LAYOUT.

15. THE CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS BEFORE INSTALLING ANY PROPOSED CONDUIT. ANY ADJUSTMENTS NEEDED SHALL BE APPROVED BY THE ENGINEER.

16. THE VILLAGE OF LYONS SPECIFICATIONS SUPPLEMENTED WHERE NECESSARY BY THE OHIO DEPT. OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS (CMS - CURRENT EDITION) SHALL GOVERN THE INSTALLATION OF WATER MAIN AND ASSOCIATED APPURTENANCES.

SANITARY, STORM, AND WATER SERVICE CONNECTIONS:

1. THE FOLLOWING NOTES APPLY TO SANITARY, STORM, AND WATER CONNECTIONS

   a. LOCATIONS OF EXISTING SERVICE CONNECTIONS ARE APPROXIMATE. THE CONTRACTOR SHALL FIELD LOCATE ALL EXISTING CONNECTIONS AT NO ADDITIONAL COST TO THE VILLAGE. THE CONTRACTOR SHALL RECORD ACTUAL LOCATION INFORMATION ON HIS RECORD DRAWINGS AS CONSTRUCTION OCCURS.

   b. THERE SHALL BE NO ADDITIONAL PAYMENT MADE FOR SAW CUTTING, EXCAVATION OR BACKFILL, INCLUDING MATERIALS AND LABOR FOR, PIPING, CAPS, BULKHEADS AND APPURTENANCES PLACED FOR LATERALS WHICH ARE DETERMINED TO BE INACTIVE AND THUS ARE TO BE ABANDONED.

   c. NO INACTIVE LATERALS SHALL BE RECONNECTED TO THE SEWER.

2. THE CONTRACTOR SHALL BE REQUIRED TO BYPASS AND MAINTAIN THE FLOW FROM ALL HOUSE UTILITY CONNECTIONS DURING CONSTRUCTION.

3. THE CONTRACTOR SHALL SUPPLY ALL PIPE AND ADAPTERS TO CONNECT TO EXISTING PIPING. THE ADAPTERS MUST BE SUBMITTED TO AND APPROVED BY THE ENGINEER PRIOR TO CONSTRUCTION.

4. EXISTING SEWER AND WATER SERVICE CONNECTIONS SHALL BE PROTECTED AND MAINTAINED IN SERVICE. ANY EXISTING WATERLINE, SANITARY SEWER, AND GAS LINE, IN OR OUTSIDE OF THE CONSTRUCTION LIMITS, DAMAGED DURING CONSTRUCTION OF THE PROPOSED PROJECT, WILL BE REPLACED AT THE CONTRACTOR'S EXPENSE.

EXCESS EXCAVATION:

1. ALL EXCESS EXCAVATION SHALL BE DISPOSED OF IN A LOCATION TO BE SELECTED BY THE CONTRACTOR. THE CONTRACTOR MUST OBTAIN A PERMIT FROM THE VILLAGE OF LYONS IF THE MATERIAL IS TO BE DISPOSED OF WITHIN THE VILLAGE LIMITS.

2. THE VILLAGE OF LYONS DOES NOT HAVE A VILLAGE LANDFILL/DUMP. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER DISPOSAL OF ALL CONSTRUCTION MATERIALS/DEBRIS.

PRESERVATION OF PROPERTY CORNERS AND SURVEY MARKERS:

1. THE CONTRACTOR WILL CAREFULLY PRESERVE BENCH MARKS, PROPERTY CORNERS, REFERENCE POINTS, AND STAKES AND IN CASE OF DISTURBANCE, HE SHALL ENGAGE A REGISTERED SURVEYOR TO REPLACE THEM AT HIS EXPENSE AND SHALL BE RESPONSIBLE FOR ANY MISTAKES THAT MAY BE CAUSED BY THEIR LOSS OR DISTURBANCE.

SUBSURFACE CONDITIONS:

1. IT IS THE OBLIGATION AND RESPONSIBILITY OF THE CONTRACTOR TO MAKE HIS OWN INVESTIGATION OF SUBSURFACE CONDITIONS PRIOR TO SUBMITTING HIS BID.

STATIONING AND LOCATIONS:

1. ALL LOCATIONS AND ITEMS CALLED OUT BY STATION ARE SUBJECT TO ADJUSTMENT IN THE FIELD AS APPROVED BY THE ENGINEER.

PROTECTION AGAINST VANDALISM:

1. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE SUFFICIENT SITE SECURITY MEASURES AND / OR PERSONNEL TO PROTECT ALL NEW CONCRETE WORK FROM VANDALISM UNTIL THE CONCRETE IS SUFFICIENTLY CURED AT NO ADDITIONAL COST.

EXISTING UTILITIES:

1. EACH CONTRACTOR SHALL VISIT THE SITE PERSONALLY TO ASCERTAIN THE NATURE OF THE WORK AND THOROUGHLY FAMILIARIZE HIMSELF WITH THE SITE PRIOR TO BID SUBMISSION.

2. THE DATA SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR. THE EXISTENCE OF FACILITIES ABOVE OR BELOW GROUND, WHICH MAY NOT BE SHOWN, MAY NOT BE A BASIS FOR A CLAIM FOR EXTRA WORK.

3. THE LOCATIONS OF THE UNDERGROUND UTILITIES ARE PLOTTED ACCORDING TO THE INFORMATION FURNISHED BY THE UTILITIES CONCERNED AND THE VILLAGE DOES NOT GUARANTEE THE ACCURACY THEREOF. CONTRACTOR ALSO TO COORDINATE HIS WORK WITH TOLEDO EDISON, OHIO GAS COMPANY, BRIGHTSPEED, SPECTRUM, AND THE VILLAGE OF LYONS WATER/SEWER DEPARTMENTS.

4. WHERE EXISTING POWER OR TELEPHONE POLES ARE IN CLOSE PROXIMITY TO WORK, THE CONTRACTOR SHALL COORDINATE HIS WORK EFFORTS WITH THOSE OF THE UTILITY COMPANIES SUCH THAT THEIR EXISTING FACILITIES CAN BE MAINTAINED AND PROTECTED DURING THE TIME WORK IS GOING ON ADJACENT TO THE POLE. THE COST FOR ANY REQUIRED PROTECTION OR RELOCATION OF EXISTING POWER OR TELEPHONE POLES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND NOT THAT OF THE VILLAGE.

5. DELAYS TO THE CONTRACTOR AS A RESULT OF TIMING OF POLE RELOCATION OR PROTECTION SHALL NOT BE CONSIDERED COMPENSABLE DELAYS, AS IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE HIS WORK IN CONFORMANCE TO THE UTILITY COMPANY'S SCHEDULE.

6. BEFORE ANY WORK IS STARTED THAT WILL INTERFERE WITH THE EXISTING UTILITIES, THE CONTRACTOR SHALL CALL THE "OHIO UTILITIES PROTECTION SERVICE" AT 1-800-362-2764, FORTY-EIGHT (48) HOURS IN ADVANCE OF THE WORK. NON-MEMBER UTILITIES MUST BE CONTACTED DIRECTLY. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS, AT NO ADDITIONAL EXPENSE TO THE VILLAGE OF LYONS, TO AVOID DAMAGE TO EXISTING UNDERGROUND AND OVERHEAD UTILITY LINES DURING THE ENTIRE PROJECT. IN THE EVENT OF DAMAGE TO EXISTING PUBLIC AND/OR PRIVATE UTILITIES, THE AGENCY CONCERNED SHALL BE NOTIFIED IMMEDIATELY AND ALL REPAIR WORK SHALL BE EXECUTED IN ACCORDANCE WITH THE SPECIFICATIONS OF THE RESPECTIVE AGENCY AT NO ADDITIONAL EXPENSE TO THE VILLAGE OF LYONS, INCLUDING ANY INSPECTION FEES OR MAINTENANCE CREWS. THE UTILITY OWNERSHIPS ARE LISTED ON THE COVER SHEET.

7. WHERE PLANS PROVIDE FOR A PROPOSED CONDUIT TO BE CONNECTED TO, OR CROSS OVER OR UNDER AN EXISTING SEWER OR UNDERGROUND UTILITY, THE CONTRACTOR SHALL LOCATE THE EXISTING PIPES OR UTILITIES BOTH AS TO LINE AND GRADE BEFORE STARTING TO LAY THE PROPOSED CONDUIT.

8. IF IT IS DETERMINED THAT THE ELEVATION OF THE EXISTING CONDUIT, OR EXISTING APPURTENANCE TO BE CONNECTED, DIFFERS FROM THE PLAN ELEVATION OR RESULTS IN A CHANGE IN THE PLAN CONDUIT SLOPE, THE ENGINEER SHALL BE NOTIFIED BEFORE STARTING CONSTRUCTION OF ANY PORTION OF THE PROPOSED CONDUIT WHICH WILL BE AFFECTED BY THE VARIANCE IN THE EXISTING ELEVATIONS.

9. IF IT IS DETERMINED THAT THE PROPOSED CONDUIT WILL INTERSECT AN EXISTING SEWER OR UNDERGROUND UTILITY IF CONSTRUCTED AS SHOWN ON THE PLAN, THE ENGINEER SHALL BE NOTIFIED BEFORE STARTING CONSTRUCTION OF ANY PORTION OF THE PROPOSED CONDUIT WHICH WOULD BE AFFECTED BY THE INTERFERENCE WITH AN EXISTING FACILITY.

LANDSCAPING BEDS, PLANTINGS AND TREE PROTECTION/ REMOVAL:

1. ANY LANDSCAPING BEDS, PLANTINGS AND TREES DISTURBED BY CONSTRUCTION ACTIVITIES BEYOND THE RIGHT-OF-WAY SHALL BE RESTORED TO ITS ORIGINAL CONDITION OR REPLACED AS DIRECTED BY THE VILLAGE OF LYONS.

2. ALL TREES WITHIN THE RIGHT-OF-WAY THAT ARE IN CONFLICT WITH CONSTRUCTION ARE TO BE REMOVED BY THE CONTRACTOR. TREES GREATER THAN 12'' IN DIAMETER THAT ARE REMOVED ARE TO BE PAID FOR EACH TREE. TREES LESS THAN 12'' IN DIAMETER THAT ARE REMOVED ARE TO BE INCLUDED IN THE COST FOR CLEARING AND GRUBBING.

SALVAGED ITEMS:

1. THE VILLAGE OF LYONS SHALL RECEIVE ALL SALVAGED ITEMS SUCH AS MANHOLE CASTINGS, FIRE HYDRANTS, VALVE CAPS, ETC. THE VILLAGE OF LYONS HAS THE RIGHT OF FIRST REFUSAL FOR ALL STEEL REMOVED FROM THE PROJECT.

RESTORATION:

1. THE CONTRACTOR SHALL CLEAN UP ALL DEBRIS AND MATERIALS RESULTING FROM HIS OPERATION AND RESTORE ALL SURFACES, STRUCTURES, DITCHES AND PROPERTY TO ITS ORIGINAL CONDITION TO THE SATISFACTION OF THE ENGINEER. ANY DITCHES DISTURBED DURING CONSTRUCTION SHALL BE REGRADED BY THE END OF THE SAME WORKDAY.

2. ALL EXISTING STORM AND SANITARY SEWER FACILITIES, INCLUDING TILE, DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED, REPLACED OR RECONNECTED TO THE EXISTING OR PROPOSED SYSTEM AS DIRECTED BY THE ENGINEER AT NO COST TO THE OWNER.

DEMOLITION:

1. THE CONTRACTOR SHALL REFER TO THE PROJECT SPECIFICATIONS AND CONSTRUCTION DRAWINGS.

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your trusted advisor
consultants
engineers
architects
planners

NO	REVISION	DATE

ISSUED FOR:	
ISSUE DATE:	10/1/2025
SCALE:	AS SHOWN
DESIGNED BY:	AMM
DRAWN BY:	AMM
CHECKED BY:	RLM

VILLAGE OF LYONS
VILLAGE OF LYONS
WATER TOWER PROJECT
FULTON COUNTY
LYONS, OHIO

GENERAL - 00 SERIES

CT GENERAL NOTES 1

PROJECT NO.
220792

DISCIPLINE
GENERAL

SHEET NAME
00G-04

SHEET 4 OF 21

EXCAVATION, BACKFILL, AND COMPACTION:

1. ALL UTILITY LINES (i.e. STORM SEWERS, STORM LATERALS, SANITARY LATERALS, WATER MAINS, WATER SERVICE CONNECTIONS, GAS MAINS, GAS SERVICE CONNECTIONS, UNDERGROUND OBT CONDUITS, CABLE T.V. LINES) CROSSING THE PROPOSED IMPROVEMENTS, WHETHER SHOWN OR NOT SHOWN ON THE PLANS, SHALL BE PROTECTED AND SUPPORTED WITH HARDWOOD PLANKS OR REMOVED AND REPLACED, RECONNECTED AND SUPPORTED ACROSS THE ENTIRE WIDTH OF THE TRENCH. NO ADDITIONAL COMPENSATION WILL BE PAID FOR THE ABOVE WORK. IF ANY OF THESE LINES ARE DAMAGED DURING CONSTRUCTION, THEY SHALL BE REPLACED.

2. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE ENGINEER FORTY-EIGHT (48) HOURS IN ADVANCE OF BEGINNING WORK WHICH REQUIRES COMPACTION TESTING AND/OR PRE-POUR INSPECTION PRIOR TO PLACEMENT OF PAVEMENT. WORK WILL NOT BEGIN UNTIL TESTING AND/OR INSPECTION HAS BEEN COMPLETED AND APPROVED BY THE ENGINEER.

STORM NOTES:

1. STORM SEWERS AND SERVICE LATERALS SHALL BE THE FOLLOWING AS PER PLAN:

   A. 12" THRU 72" DIA PIPE SHALL BE REINFORCED CONCRETE PER ASTM C-76, WALL "B" ; RUBBER GASKET JOINTS PER ASTM C-443; CLASS IV FOR 12" & 15" DIA. PIPE; AND CLASS III FOR 18" THRU 72" DIA. PIPE.

   B. 4" THRU 10" DIA. PIPE SHALL BE PVC SDR 26 OR 35 PER ASTM D-3034; GASKETS PER ASTM F-477; INTEGRAL BELL AND SPIGOT JOINTS PER ASTM D-3212; AND INSTALLATION AND BEDDING PER ASTM D-2321.

   C. 12" THRU 60" DIA. PIPE SHALL BE HIGH-DENSITY POLYETHYLENE (HDPE) N-12 SMOOTH INTERIOR, CORRUGATED EXTERIOR PER ASTM F-2648; GASKETS PER ASTM F-477; WATERTIGHT BELL AND SPIGOT JOINTS TO ASTM D-3212; FITTINGS TO ASTM F-2306; AND INSTALLATION AND BEDDING PER ASTM D-2321.

   D. 12" THRU 60" DIA. PIPE SHALL BE POLYPROPYLENE (PP) DUAL WALL SMOOTH INTERIOR, ANNULAR EXTERIOR CORRUGATIONS (I.E. ADS HP STORM) PER ASTM F-2881; GASKETS PER ASTM F-477; BELL AND SPIGOT JOINTS TO ASTM D-3212; FITTINGS TO ASTM F-2881; AND INSTALLATION AND BEDDING PER ASTM D-2321.

2. THE CONTRACTOR SHALL MAINTAIN THE FLOW IN EXISTING LIVE STORM SEWERS DURING CONSTRUCTION SUCH AS TEMPORARY BYPASS PUMPING.

3. ALL STORM SEWER JOINTS SHALL BE WATERTIGHT.

4. THE CONTRACTOR SHALL CLEAN ALL EXISTING AND NEW STORM SEWERS AND VACUUM CLEAN ALL MANHOLES AND CATCH BASINS WITHIN THE PROJECT LIMITS BEFORE ACCEPTANCE.

5. PIPE ENTRIES INTO CONCRETE STRUCTURES (I.E. MANHOLE, CATCH BASIN, VAULT, CHAMBER) SHALL USE FLEXIBLE CONNECTORS PRECAST WITH HOLE LOCATIONS AS PER PLAN. KNOCKOUT TYPE CONCRETE STRUCTURES ARE NOT ALLOWED.

6. OPENING REQUIRED INTO EXISTING CONCRETE MANHOLE OR CATCH BASIN SHALL BE FIELD CORED AND HAVE MECHANICAL CONNECTOR (KOR-N-SEAL PIPE-TO-MANHOLE CONNECTOR) CONFORMING TO ASTM C-923.

7. THE MINIMUM SLOPE OF STORM SERVICE LATERALS IS 1.00% OR AS PER PLAN.

8. THE COST OF ALL SADDLES, BOOTS, FITTINGS, ETC. SHALL BE INCLUDED IN THE COST FOR EACH STORM SERVICE LATERAL.

9. A STORM SERVICE LATERAL CONNECTION TO A NEW OR EXISTING STORM MAIN SEWER SHALL USE A BOOT INSTALLED IN A CORED HOLE IN THE STORM SEWER (I.E. INSERTA TEE FITTING).

10. ROOF DRAINS, FOUNDATION DRAINS AND OTHER CLEAN WATER CONNECTIONS TO THE SANITARY SEWER SYSTEM ARE PROHIBITED.

WATER MAIN SPECIFICATIONS & NOTES:

1. 6" THRU 12" DIA. PIPES SHALL BE COLOR BLUE POLYVINYL CHLORIDE PRESSURE PIPE PER AWWA C909 PVCO PRESSURE CLASS 235 WITH TRACER WIRE; JOINTS SHALL BE RESTRAINED.

   RESTRAINED PUSH-ON JOINTS SHALL BE COMPLETELY BOLTLESS; MCWANE SUPER-LOCK, AMERICAN FLEX-RING, U.S. PIPE TR FLEX, OR AS APPROVED. RESTRAINED MECHANICAL JOINTS SHALL BE MEGALUG AS MANUFACTURED BY EBAA IRON, INC., OR AS APPROVED, OF DUCTILE IRON AND WITH A WORKING PRESSURE OF AT LEAST 250 PSI AND A MINIMUM SAFETY FACTOR OF 2:1. MINIMUM LENGTH OF CUT PIECES OF WATER MAIN THAT MAY BE REUSED IS 5 LF.

2. FITTINGS SHALL BE DUCTILE IRON AND MANUFACTURED IN ACCORDANCE WITH ANSI/AWWA C110/A21.10 OR ANSI/AWWA C153/A21.53 (FOR COMPACT FITTINGS). ALL FITTINGS AND ACCESSORIES SHALL BE FURNISHED WITH MECHANICAL TYPE JOINTS IN ACCORDANCE WITH ANSI/AWWA C111/A21.11.

   ALL FITTINGS, BENDS, TEES, PLUGS, ETC. SHALL BE TIED TO THE WATER MAIN WITH EITHER M.J. TYPE CONNECTIONS, TIE RODS OR MEGA-LUGS. TIE RODS SHALL BE 3/4" DIAMETER STAINLESS STEEL. FOR 8" DIAMETER PIPE USE FOUR RODS.

3. POLYETHYLENE ENCASEMENT SHALL BE AN 8 MIL. THICK POLYETHYLENE TUBE MANUFACTURED IN ACCORDANCE WITH ANSI/AWWA C105/A21.5. POLYETHYLENE ADHESIVE TAPE, 2" WIDE, SHALL BE USED ON FITTINGS AND TO SEAL ALL JOINTS.

4. FIRE HYDRANTS SHALL BE POST TYPE WITH A BREAKABLE FLANGE DESIGN. THE MAIN VALVE SHALL BE 5¼", OPENING LEFT WITH ONE 4½" STEAMER/PUMPER NOZZLE AND TWO 2½" HOSE NOZZLES, ALL WITH NATIONAL STANDARD THREADS UNLESS OTHERWISE SPECIFIED. THE OPENING NUT SHALL BE PENTAGONAL IN SHAPE. HYDRANTS SHALL HAVE A 6" MECHANICAL JOINT TYPE SHOE WITH A 4'-6" MIN. BURY DEPTH. HYDRANTS SHALL BE SHIPPED AND PAINTED AS DIRECTED BY THE VILLAGE.

   NOTE - FIRE HYDRANT ASSEMBLIES SHALL CONSIST OF:

   A. MECHANICAL JOINT ANCHOR TEE
   B. 6" M.J. x M.J. GATE VALVE AND BOX
   A. 6" DUCTILE IRON PIPE (LENGTH VARIES)
   D. FIRE HYDRANT (SEE ABOVE)
   E. ALL NECESSARY APPURTENANCES
   F. 5¼" EXTENSION KIT (IF REQUIRED)

5. GATE VALVES SHALL BE RESILIENT SEAT, NON-RISING STEM WITH MECHANICAL JOINT TYPE ENDS WHICH MEET THE REQUIREMENTS OF AWWA C509. MECHANICAL JOINT ENDS SHALL COMPLY WITH AWWA C111; EXCEPT FOR TAPPING VALVES. THE OPERATING NUT SHALL BE 2" SQUARE, WHICH OPENS TO THE LEFT. VALVES SHALL COME EQUIPPED WITH A DOUBLE O-RING SEAL STUFFING BOX AND HAVE AN EPOXY COATING ON ALL EXTERIOR SURFACES WHICH COMPLIES WITH AWWA C550.

6. BUTTERFLY VALVES SHALL BE OF THE SIZE SHOWN ON THE PLANS AND MEET OR EXCEED ALL APPLICABLE REQUIREMENTS OF ANSI/AWWA C-504 WITH A MAXIMUM WORKING PRESSURE OF 175 PSI. THE VALVE SHALL HAVE A DUCTILE IRON BODY CONFORMING TO ASTM A-536 WITH MECHANICAL JOINT ENDS. ALL EXTERIOR SURFACES SHALL HAVE AN EPOXY COATING WHICH COMPLIES WITH AWWA C-550. THE ACTUATOR SHALL BE MANUALLY OPERATED WITH A 2" SQUARE NUT, WHICH OPENS COUNTER CLOCKWISE (LEFT).

7. VALVE BOXES SHALL BE CAST IRON, TWO PIECE SCREW TYPE, 5¼" DIA. CONFORMING TO ASTM A-126. EACH PIECE SHALL BE COATED, INSIDE AND OUTSIDE WITH A COAL-TAR PITCH VARNISH, SIMILAR TO THAT USED FOR COATING CAST IRON PIPE. HEIGHT RANGE OF BOX ASSEMBLED SHALL BE 36" TO 60". EACH BOX SHALL INCLUDE A CAST IRON LID WITH THE WORD "WATER" CAST INTO THE TOP. ALL VALVE BOXES SHALL INCLUDE ONE 1½" VALVE BOX RISER.

8. WATER MAINS SHALL TYPICALLY HAVE 4'-6" OF COVER, MEASURED FROM THE TOP OF PIPE VERTICALLY TO THE FINAL FINISH GROUND GRADE OR AS SHOWN SPECIFICALLY ON THE PLANS OR AS DIRECTED BY THE VILLAGE OF LYONS.

9. TAPPING SLEEVES SHALL HAVE A STAINLESS STEEL BODY WITH A DUCTILE IRON FLANGED OUTLET WHICH COMPLIES WITH ANSI B16.1, CLASS 125 AND WITH MSS SP-60. THE GASKET SHALL COMPLETELY SURROUND THE INSIDE OF THE STAINLESS STEEL BODY. THE SLEEVE SHALL COME EQUIPPED WITH A ¾" NPT BRASS TEST PLUG. MAXIMUM WORKING PRESSURE FOR 4" - 12" SIZES (250 psig) AND FOR 14" - 24" SIZES (200 psig).

   TAPPING VALVES SHALL MEET OR EXCEED ALL APPLICABLE REQUIREMENTS OF ANSI/AWWA C509. THE INLET FLANGE SHALL COMPLY WITH ANSI B16.1, CLASS 125 DRILLING. THE MECHANICAL JOINT OUTLET SHALL COMPLY WITH ANSI/AWWA C111. THE VALVE SHALL HAVE A NON-RISING STEM (NRS). THE OPERATING NUT SHALL BE 2" SQUARE, WHICH OPENS TO THE LEFT. VALVES SHALL COME EQUIPPED WITH A DOUBLE O-RING SEAL STUFFING BOX AND HAVE AN EPOXY COATING ON ALL EXTERIOR SURFACES WHICH COMPLIES WITH AWWA C550.

10. BLOW-OFF HYDRANT ASSEMBLIES SHALL BE ECLIPSE MODEL NO. 85, AS MANUFACTURED BY THE KUPFERLE FOUNDRY COMPANY (1-800-231-3990), OR APPROVED EQUAL. ASSEMBLIES SHALL BE SELF-DRAINING, NON-FREEZING, COMPRESSION TYPE WITH 2-3/16" MAIN VALVE OPENING. THE INLET CONNECTION SHALL BE 2"IP. THE OUTLET SIZE SHALL BE 2-1/2" NST. HYDRANT SHALL HAVE A CAST IRON BOX, LOCKING LID, AND 3" DUCTILE IRON RISER PIPE. THE INTERIOR OPERATING PARTS SHALL BE BRASS AND BE REMOVABLE FROM THE HYDRANT FOR SERVICING WITHOUT EXCAVATING THE HYDRANT. THE ASSEMBLY SHALL BE SET IN A MINIMUM FOUR (4) CUBIC FEET OF #57 WASHED STONE. THE DEPTH OF BURY SHALL BE 5'-6". THE TOP OF THE ASSEMBLY SHALL BE FLUSH WITH THE FINAL GRADE OF THE ADJACENT GROUND.

11. WATER SERVICE PIPE, 2" OR LESS, SHALL BE AS NOTED ON PLANS AND SPECIFICATIONS. SIZE SHALL BE AS NOTED ON THE PLANS (1" MINIMUM). ALL PIPES SHALL HAVE COMPRESSION ENDS. MINIMUM COVER OVER THE PIPE SHALL BE FIVE (5) FEET UNLESS OTHERWISE NOTED ON THE DRAWINGS.

12. CORPORATION STOPS SHALL BE A GROUND KEY DESIGN, CAST FROM BRASS ALLOY, CONFORMING TO ANSI/AWWA C800. INLET END SHALL HAVE AWWA TAPER THREADS; OUTLET END SHALL HAVE A COPPER COMPRESSION QUARTER BEND CONNECTION.

    ALL WATER SERVICE TAPS, 2" OR LESS SHALL BE TAPPED ON TOP OF THE WATER MAIN. THE CORPORATION STOPS AND QUARTER BEND SHALL BE BLOCKED.

13. CURB VALVES (STOPS) SHALL BE A ONE PIECE DESIGN, CAST FROM A BRASS ALLOY, CONFORMING TO ANSI/AWWA C800, HAVE A MAXIMUM WORKING PRESSURE OF 175 PSIG, AND HAVE A QUARTER TURN CHECK. BOTH ENDS SHALL HAVE COPPER COMPRESSION FITTINGS. CURB VALVES SHALL BE BURIED TO A MINIMUM DEPTH OF 4 FEET AND A MAXIMUM DEPTH OF 5 FEET.

14. CURB BOXES SHALL BE CAST IRON, TWO PIECE SCREW TYPE, ADJUSTABLE TO A TOTAL HEIGHT BETWEEN 48 INCHES TO 60 INCHES. LIDS SHALL BE CAST IRON WITH THE WORD "WATER" CAST INTO THE TOP. LIDS SHALL BE SECURED WITH ONE BRASS PENTAGONAL HEAD SCREW. ALL BOXES SHALL BE LOCATED WHERE SHOWN ON THE PLANS OR AS DIRECTED BY THE VILLAGE OF LYONS.

15. SERVICE FITTINGS TO CONNECT TO EXISTING WATER SERVICES WHICH ARE NOT 1" DIAMETER COPPER SHALL BE A MUELLER H-15425, SMITHBLAIR 525, OR EQUAL.

    BEFORE TESTING THE WATER MAIN, THE SYSTEM SHALL BE FLUSHED ACCORDING TO THE MOST CURRENT PROCEDURES SET FORTH BY THE VILLAGE OF LYONS WATER DEPT. CALL (419) 923-2001 FOR THE MOST RECENT PROCEDURES. ALL LEAKS SHALL BE LOCATED AND REPAIRED BY THE CONTRACTOR. ALL WATER SAMPLES SHALL BE OBTAINED AND TESTED BY THE VILLAGE OF LYONS.

16. WATER MAINS SHALL BE PRESSURE TESTED IN ACCORDANCE WITH AWWA C600. ALL TEST RESULTS MUST BE APPROVED BY THE VILLAGE OF LYONS BEFORE INSTALLATION OF WATER SERVICES. COST SHALL BE SUBSIDIARY TO THE INSTALLATION OF WATER MAIN. TEST PRESSURE SHALL BE 150 PSI.

17. WATER MAINS SHALL BE DISINFECTED IN ACCORDANCE WITH AWWA C651. COST SHALL BE SUBSIDIARY TO THE INSTALLATION OF WATER MAIN.

18. THE PROPOSED WATER SYSTEM SHALL MAINTAIN A MINIMUM STATIC PRESSURE OF 35psi DELIVERED TO THE CURB STOP DURING NORMAL OPERATING CONDITIONS.

19. BOOSTER PUMPS ARE NOT PERMITTED ON SERVICE CONNECTIONS. THE VILLAGE MAY GRANT SPECIAL PERMISSION FOR BUILDINGS SIX STORIES AND HIGHER.

20. THE CONTRACTOR SHALL MAINTAIN A MINIMUM 10 FOOT HORIZONTAL SEPARATION AND 18 INCH VERTICAL SEPARATION BETWEEN THE PROPOSED WATER MAIN AND EXISTING STORM SEWERS AS MEASURED FROM OUTSIDE EDGE TO OUTSIDE EDGE UNLESS NOTED ON THE PLAN AND PROFILE SHEETS.

21. THE CONTRACTOR SHALL MAINTAIN A MINIMUM 10 FOOT HORIZONTAL SEPARATION AND 18 INCH VERTICAL SEPARATION BETWEEN THE PROPOSED WATER MAIN AND EXISTING SANITARY SEWERS FROM OUTSIDE EDGE TO OUTSIDE EDGE.

22. THE CONTRACTOR SHALL NOT OPERATE OR TURN ANY EXISTING WATER VALVE. IF VALVES NEED TO BE OPENED OR CLOSED HE SHALL NOTIFY THE VILLAGE OF LYONS.

23. ALL ROUGH GRADING WITHIN SIX (6) INCHES OF FINISH GRADE SHALL BE COMPLETED OVER THE PROPOSED WATER MAIN PRIOR TO BEING PUT INTO SERVICE.

24. THE LOCATION OF EXISTING WATER UTILITIES AS SHOWN ON THESE PLANS WERE DETERMINED FROM AVAILABLE DATA AT THE TIME OF FIELD SURVEYING IN ACCORDANCE WITH SECTION 153.63 OF THE OHIO REVISED CODE.

25. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS, PAYING ALL FEES, AND FOLLOWING ALL REQUIREMENTS ASSOCIATED WITH THE PERMITS. THE VILLAGE OF LYONS ASSUMES NO LIABILITY FOR NOT FOLLOWING THE ABOVE.

26. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING THE OHIO UTILITY PROTECTION SERVICE (OUPS) AS REQUIRED BY LAW.

27. NO WATERLINE TIE-INS SHALL BE DONE ON FRIDAYS OR THE DAY BEFORE A VILLAGE HOLIDAY.

28. DEFLECT WATER MAIN AS REQUIRED TO MAINTAIN ALIGNMENT AS SHOWN ON PLANS. MAXIMUM DEFLECTION IS 3 DEGREES PER JOINT.

29. TEMPORARY BLOW-OFF AND FLUSHING ASSEMBLY:

    A. PIPE SHALL BE TYPE K COPPER WITH COMPRESSION FITTINGS.

    B. CORPORATION STOPS SHALL BE GROUND KEY DESIGN, CAST FROM A BRASS ALLOY AND CONFORM TO AWWA C800. INLET END SHALL HAVE AWWA TAPER THREADS. OUTLET END SHALL HAVE COPPER COMPRESSION QUARTER BEND CONNECTION. ALL TAPS SHALL BE MADE ON TOP OF THE WATER MAIN. CORPORATION STOPS AND QUARTER BENDS SHALL BE BLOCKED.

    C. CURB VALVES (STOPS) SHALL BE ONE PIECE DESIGN, CAST FROM A BRASS ALLOY, CONFORM TO AWWA C800, HAVE A MAXIMUM WORKING PRESSURE OF 175 PSIG AND HAVE A QUARTER TURN CHECK. BOTH ENDS SHALL HAVE COPPER COMPRESSION FITTINGS.

    D. LOCATIONS SHALL BE AS SHOWN ON THE DRAWINGS, AT A MINIMUM. CONTRACTOR SHALL INSTALL ADDITIONAL ASSEMBLIES AS NEEDED TO EXHAUST AIR AND TO COMPLY WITH REGULATIONS REGARDING PRESSURE TESTING, BACTERIA SAMPLING AND FLUSHING.

    E. AT COMPLETION OF TESTING, CLOSE CORPORATION STOP, REMOVE COPPER PIPING AND INSERT PLUG ON CORPORATION STOP.

    F. NO SEPARATE PAYMENT SHALL BE MADE FOR TEMPORARY BLOW-OFFS AND FLUSHING ASSEMBLIES.

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NO	REVISION	DATE

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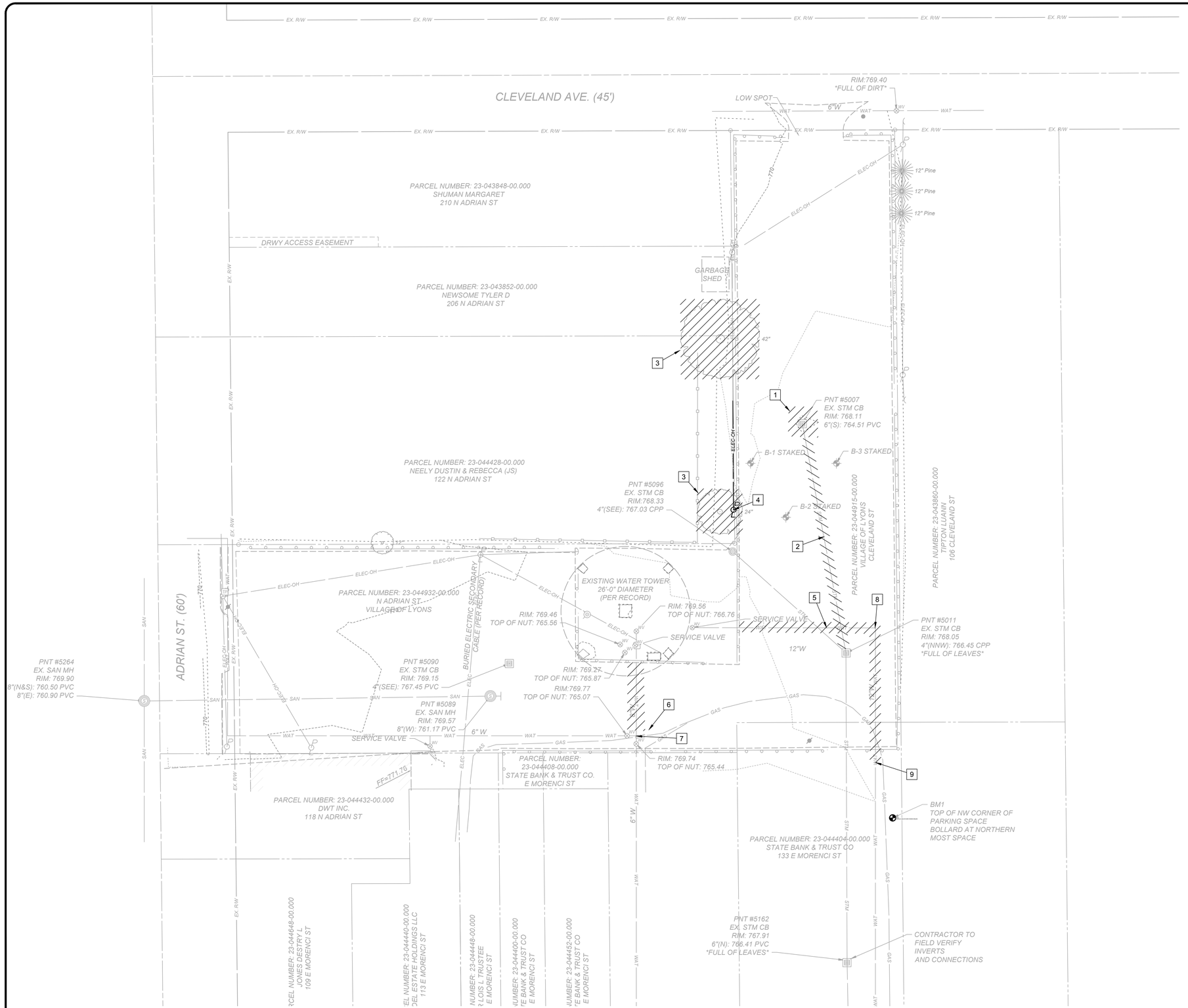
ISSUE DATE: AS SHOWN
SCALE: AMM
DESIGNED BY: AMM
DRAWN BY: RLM
CHECKED BY:

VILLAGE OF LYONS
VILLAGE OF LYONS
WATER TOWER PROJECT
FULTON COUNTY LYONS, OHIO

GENERAL - 00 SERIES

CT GENERAL NOTES 2

PROJECT NO. 220792
DISCIPLINE GENERAL
SHEET NAME 00G-05
SHEET 5 OF 21



EXISTING CONDITIONS SITE PLAN - DEMOLITION

SCALE: 1" = 20'

DEMOLITION GENERAL NOTES:

1. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL LABOR, EQUIPMENT & SERVICES TO PROPERLY EXECUTE THE DEMOLITION & REMOVAL WORK INDICATED ON THESE CONSTRUCTION DOCUMENTS.
2. THE CONTRACTOR SHALL VISIT THE SITE & INSPECT THE EXISTING STRUCTURES & VERIFY THAT ALL ITEMS INDICATED TO BE EXISTING & SO MARKED ON THE DRAWINGS ARE IN PLACE & CORRECT.
3. PROVISIONS SHALL BE MADE TO ALLEVIATE THE SPREAD OF DEBRIS, DIRT & DUST TO THE ROADWAY & ADJACENT PROPERTIES. THE PROPERTY SHALL BE KEPT CLEAN AS POSSIBLE AT ALL TIMES.
4. ALL DEBRIS & MATERIALS FROM THE DEMOLITION WORK SHALL BE DISPOSED OF OFF THE SITE IN A LEGAL MANNER. NO RECLAIMED MATERIALS SHALL BE RE-USED EXCEPT AS SPECIFICALLY APPROVED BY ENGINEER OR OWNER.
5. WHERE DEMOLITION & CUTTING WORK HAS OCCURRED OR WHERE EXISTING SURFACES, MATERIALS OR OTHER ITEMS HAVE BEEN DAMAGED OR DISTURBED AS A RESULT OF THIS CONTRACT, THE SAID SURFACES & AREAS SHALL BE CAREFULLY RESTORED AS REQUIRED TO BE CONTIGUOUS TO EXISTING SURROUNDING SURFACES.
6. WHERE ELECTRICAL NEEDS TO BE ABANDONED, REMOVE WIRE FROM LOCATION ALL THE WAY BACK TO THE ELECTRICAL PANEL/SOURCE.
7. WHERE PIPING NEEDS TO BE ABANDONED, REMOVE ALL WATER LINES BACK TO POINT OF ENTRY (CAREFULLY VERIFY IF ANY LINES CAN BE RE-UTILIZED AS A PART OF THE NEW CONSTRUCTION. ALL UNDERGROUND SANITARY OR WATER LINES SHALL BE CAPPED-OFF PER PLUMBING SHEETS. MAKE SURE ALL WATER HAS BEEN TURNED OFF PRIOR TO ANY WORK.
8. WHERE ALL UTILITY LINES (GAS & WATER) &/OR SERVICE LINES NEED TO BE ABANDONED, CAREFULLY REMOVE ALL PIPING, SHUT-OFF VALVES & FITTINGS AS REQUIRED. GAS METER & REGULATOR & WATER METER SHALL BE REMOVED BY UTILITY COMPANY.
9. COORDINATE ALL DEMOLITION WITH NEW PLAN SO AS NOT TO CREATE CONFLICTS OF NEW INSTALLATION.

DEMOLITION CODED NOTES:

1. REMOVE EXISTING CATCH BASIN
2. REMOVE 6" STORM SEWER. PLUG HOLE IN CATCH BASIN
3. REMOVE & DISPOSE OF TREES
4. REMOVE EXISTING UTILITY POLE
5. ABANDON 12" WATERMAIN AND PLUG
6. ABANDON 8" WATERMAIN AND PLUG
7. REMOVE EXISTING 6 X 6 X 8 TEE. CAP 6" WATERMAINS
8. REMOVE 90 DEGREE BEND
9. REMOVE EXISTING 12" WATERMAIN. CAP 12" WATER MAIN TO REMAIN

LEGEND:

DENOTES ITEM OR AREA FOR DEMOLITION

BORING NOTES:

1. THE BORING STAKES WERE REMOVED PRIOR TO SURVEY, THE LOCATIONS SHOWN ON THIS PLAN ARE APPROXIMATE AND BASED ON THE LOCATIONS SHOWN IN THE SOIL BORING REPORT

BAR SCALE
20' 10' 0' 20'
SCALE: 1"= 20'

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CHECKED BY:	RLM

VILLAGE OF LYONS
VILLAGE OF LYONS
WATER TOWER PROJECT
FULTON COUNTY LYONS, OHIO
WATER TOWER SITE - 01 SERIES
EXISTING CONDITON AND SITE PLAN & DEMO

PROJECT NO.	
220792	
DISCIPLINE	
CIVIL	
SHEET NAME	
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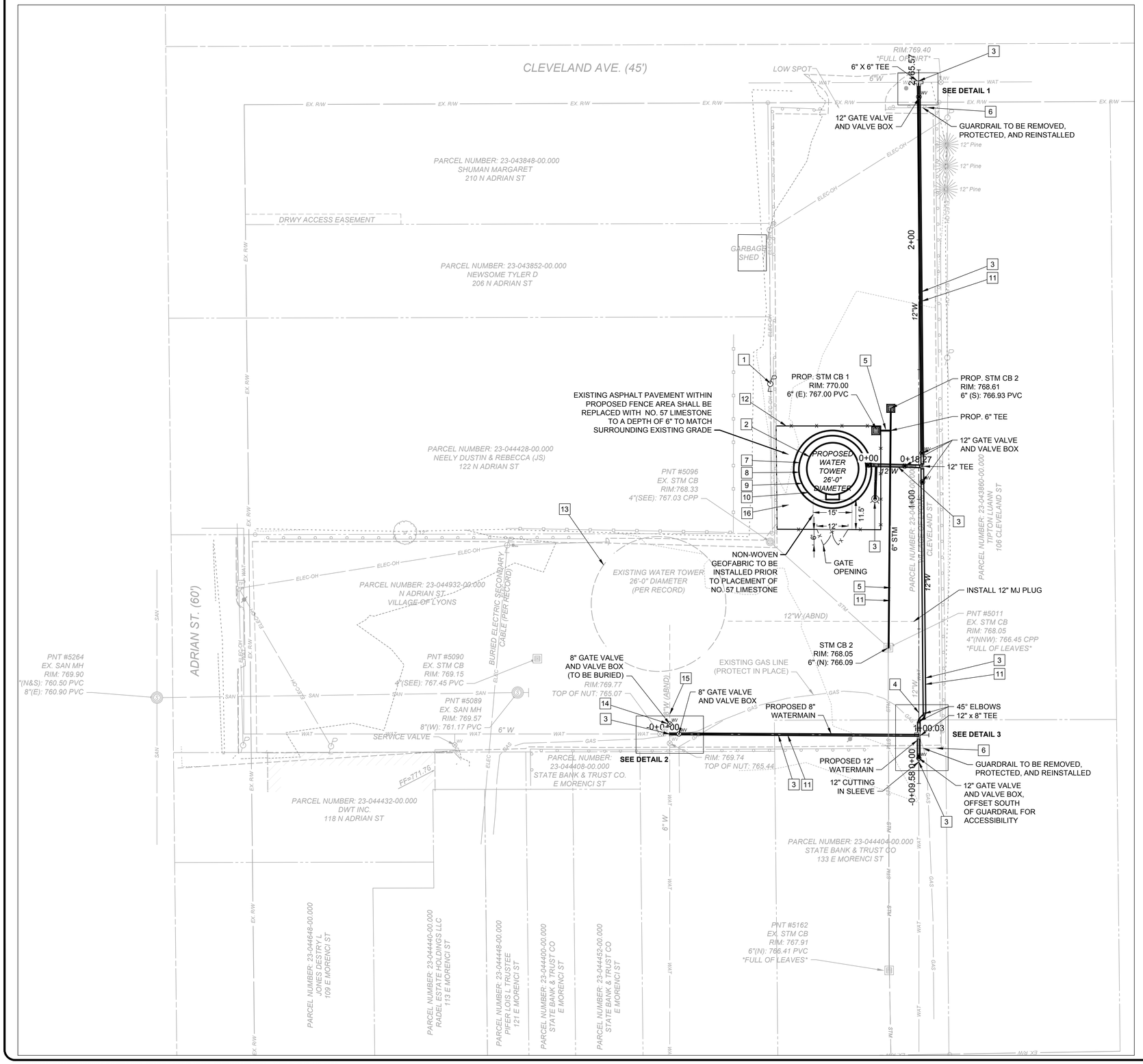

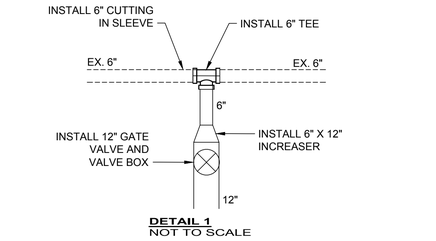

DETAIL 1
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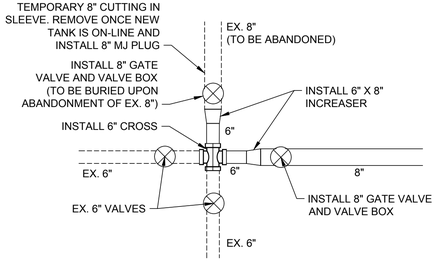

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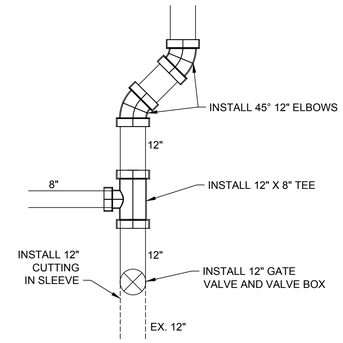

DETAIL 3
NOT TO SCALE

SEQUENCE OF CONSTRUCTION:

1. RELOCATE EXISTING UTILITY POLE. COORDINATE WITH UTILITIES ABOUT AERIAL RELOCATIONS AND SUPPORTS AS NEEDED.
2. EXCAVATE EXISTING GRADE. CONSTRUCT WATER TOWER FOUNDATION.
3. INSTALL PROPOSED WATER MAINS, HYDRANT, VALVES, AND APPURTENANCES. DISINFECT AND CONNECT TO EXISTING MAINS AND INSTALL PROPOSED CROSS.
4. ABANDON EXISTING 12" MAIN AND INSTALL MJ PLUG.
5. INSTALL PROPOSED STORM SEWER PIPE AND STRUCTURES. TIE INTO EXISTING CATCH BASIN.
6. REINSTALL GUARDRAIL.
7. CONSTRUCT WATER TOWER CONE, PEDESTAL, AND TANK.
8. PAINT WATER TOWER.
9. PERFORM PRESSURE TESTING AND DISINFECTION OF WATER TOWER.
10. RELOCATE EXISTING TELEMETRY FROM EXISTING TOWER.
11. BACKFILL AND RESTORATION TO PROPOSED SITE CONDITIONS.
12. INSTALL FENCE.
13. DRAIN AND ISOLATE EXISTING TOWER
14. CLOSE INSTALLED 8" VALVE NORTH OF CROSS AND REMOVE VALVE BOX.
15. CUT INTO EXISTING MAIN NORTH OF 8" VALVE. MJ PLUG MAIN NORTH OF 8" VALVE. CONCRETE PLUG AT END OF MAIN AND ABANDON IN PLACE.
16. FINAL SITE RESTORATION.

GENERAL NOTES:

1. CONTRACTOR TO FIELD VERIFY ALL UTILITIES PRIOR TO CONNECTION.

BAR SCALE
20' 10' 0' 20'
SCALE: 1"= 20'

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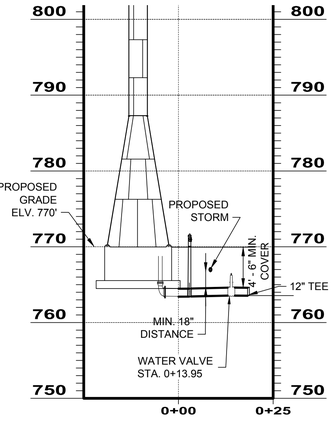
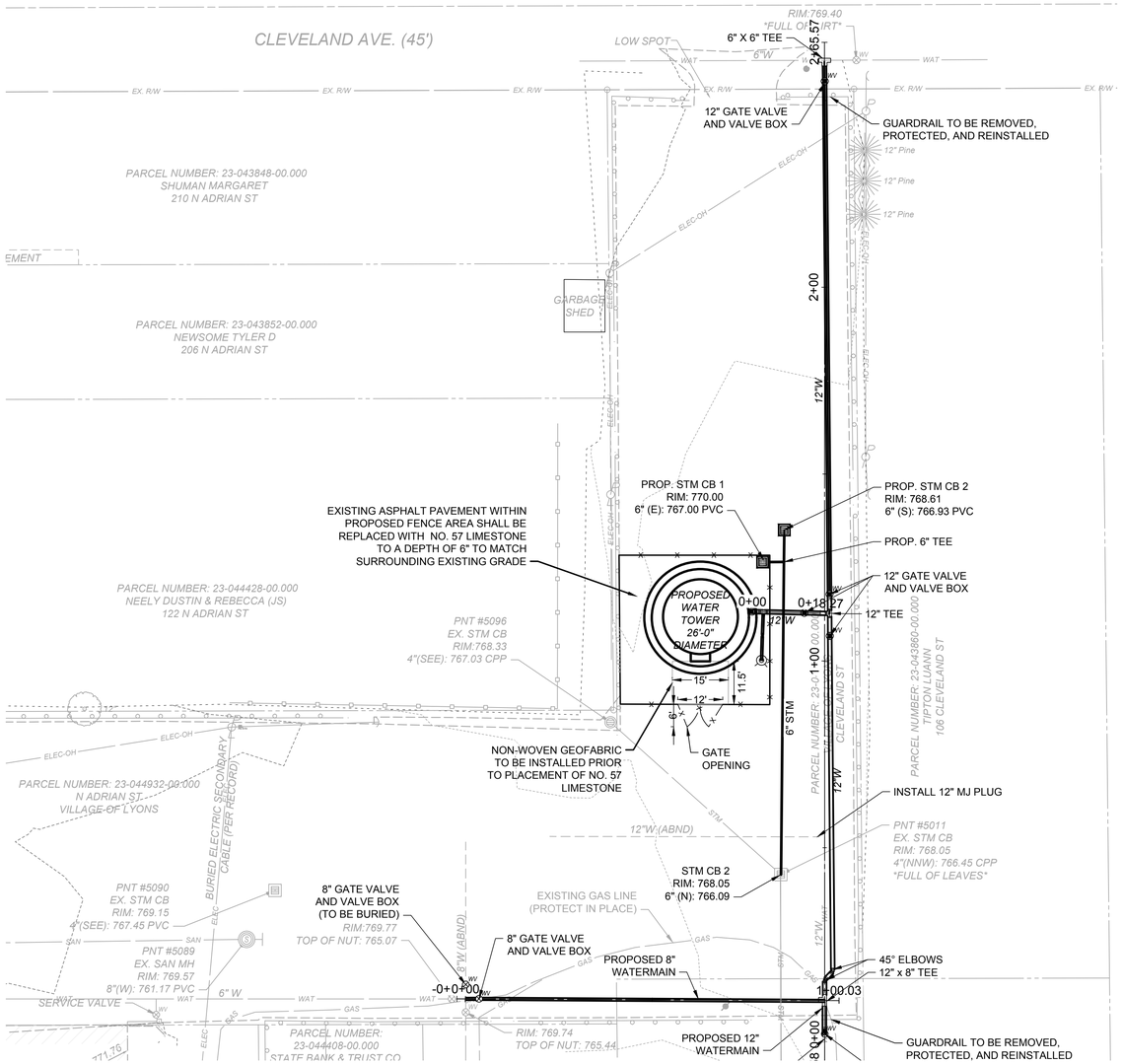
WATER TOWER PROJECT
FULTON COUNTY
LYONS, OHIO

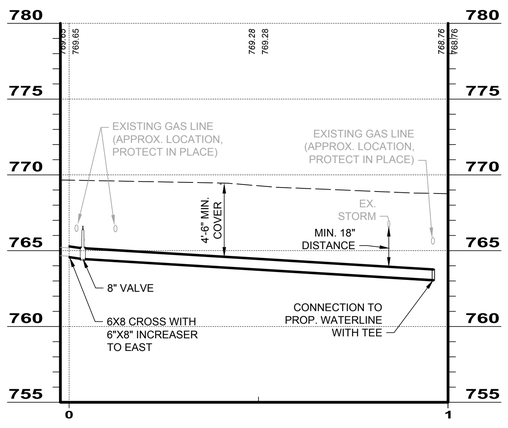
WATER TOWER SITE - 01 SERIES
PROPOSED WATER TOWER

PROJECT NO.
220792
DISCIPLINE
CIVIL
SHEET NAME
01C-02
SHEET 7 OF 21

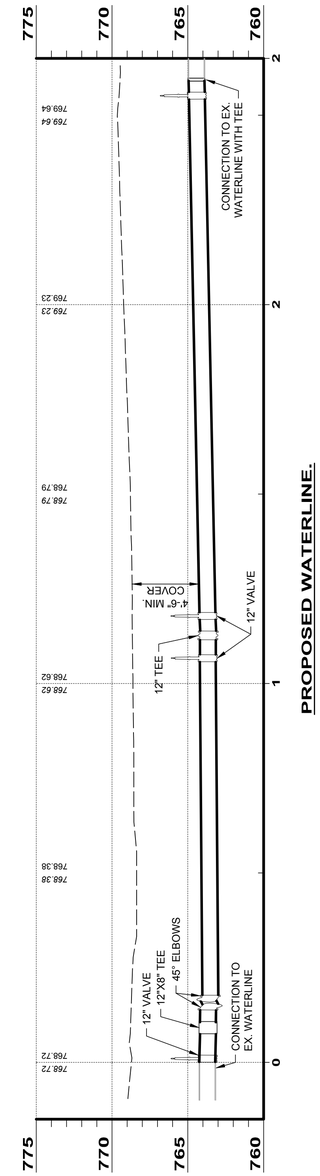


WATER TANK





PROPOSED WATERLINE



PROPOSED WATERLINE.

GENERAL NOTES:

1. ALL WATERMAIN ON THIS SHEET TO BE COMPLETELY BOLTLESS RESTRAINED JOINT PIPE.
2. CONTRACTOR TO FIELD VERIFY ALL UTILITIES PRIOR TO CONNECTING

BAR SCALE
20' 10' 0' 20'
SCALE: 1"= 20'

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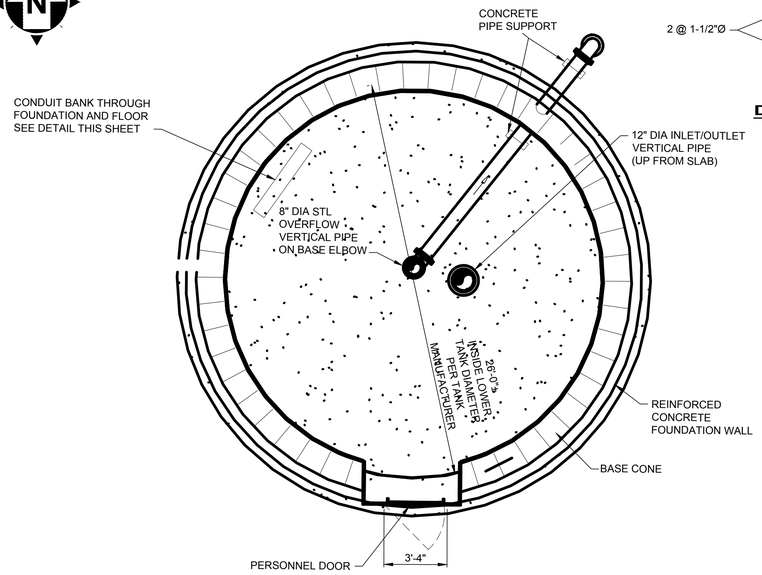
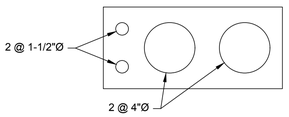
WATER TOWER PROJECT
FULTON COUNTY LYONS, OHIO

WATER LINE SITE - 02 SERIES

PROPOSED WATER MAIN PLAN & PROFILE

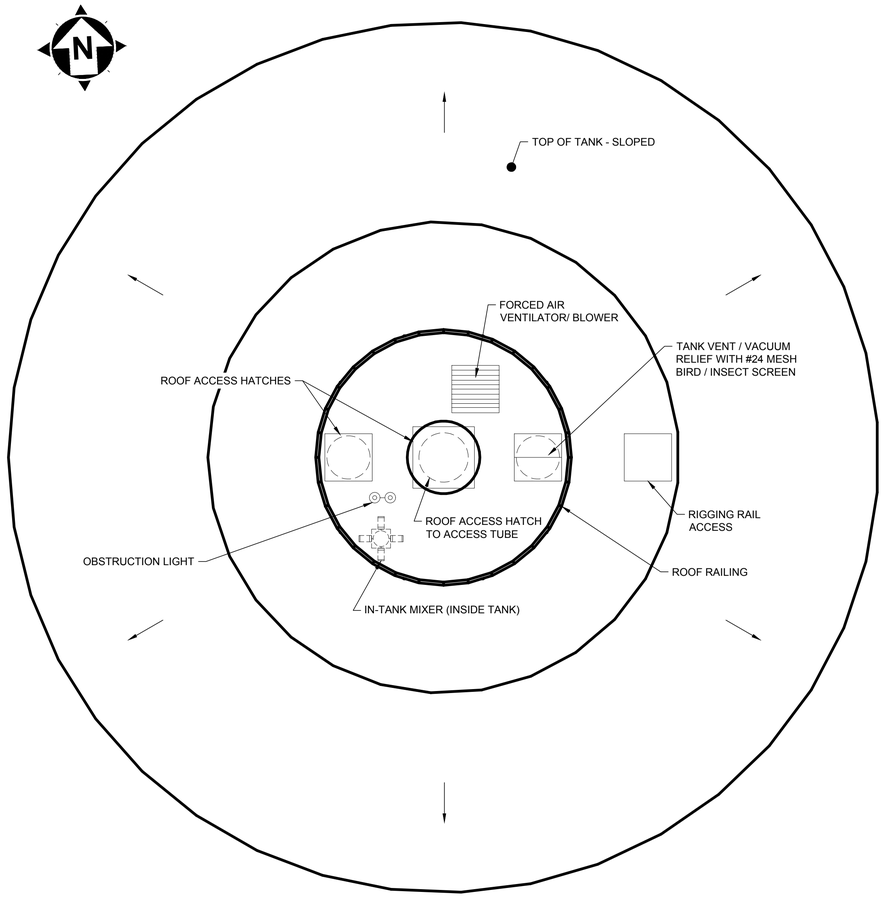
PROJECT NO.
220792
DISCIPLINE
CIVIL
SHEET NAME
02C-01
SHEET 8 OF 21



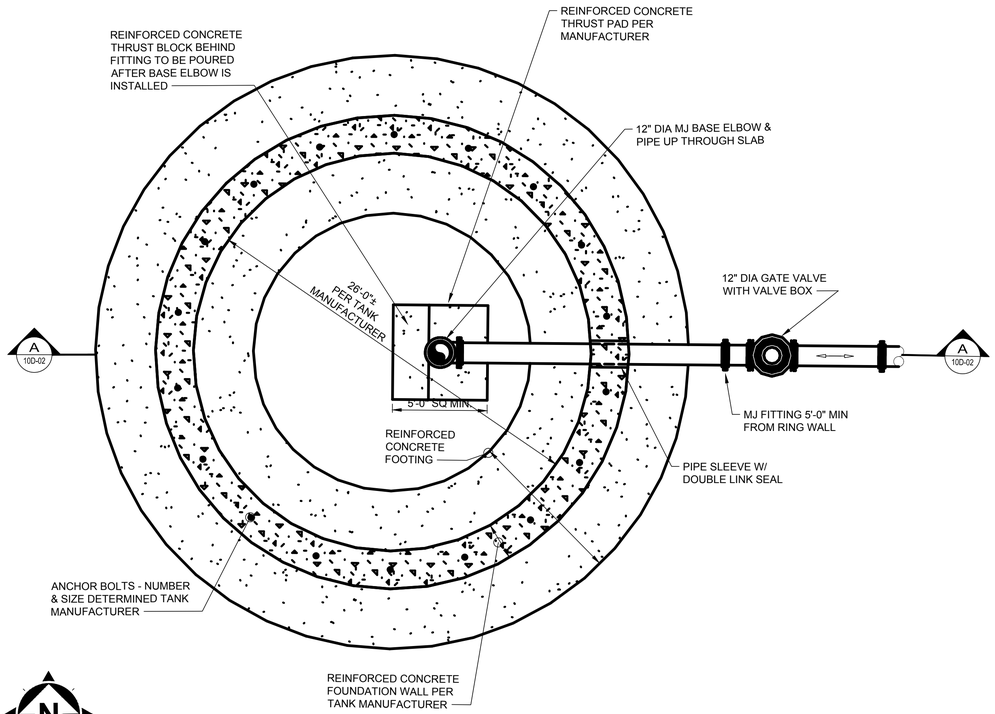


DUCT BANK DETAIL
NOT TO SCALE

FLOOR SLAB PLAN
SCALE: 1/4" = 1'-0"'



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



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

WATER TOWER DESIGN NOTES:

1. THE WATER TANK DRAWINGS ARE DESIGNED BASED ON PEDESPHERE ELEVATED STORAGE TANK WITH A CONE BASE, 100,000 GALLON CAPACITY, 26'-0" TANK DIAMETER (BULB), HEAD RANGE OF 22'-0" WITH A MINIMUM 5'-0" FREEBOARD FROM THE OVERFLOW WEIR.
2. THE WATER TANK & TANK FOUNDATION DESIGN IS THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL SUBMIT DESIGN CALCULATIONS & DRAWINGS SEALED BY A REGISTER ENGINEER IN OHIO.
3. ALL WATER TANK APPURTENANCES (LADDER CAGE, LADDER, RAILINGS, PIPE SUPPORTS, VENTILATOR, ACCESS HATCHES, PIPE PENETRATIONS, PIPE SUPPORTS, LANDINGS, PLATFORMS, WALKWAYS AND ALL OTHER STRUCTURAL CONNECTIONS, ETC. MUST BE DESIGNED BY AN ENGINEER REGISTERED IN THE STATE OF OHIO UNDER CONTRACT WITH THE SUPPLIED TANK MANUFACTURER) AND SHALL BE FABRICATED BY THE SUPPLIED TANK MANUFACTURER. CONTRACTOR SHALL COORDINATE WITH THE TANK MANUFACTURER & ENGINEER FOR ANY ADDITIONAL APPURTENANCES. THE ELEVATED WALKWAYS MUST BE DESIGNED FOR A LIVE LOAD OF 40 PSF. ALL STRUCTURAL DESIGNS MUST BE IN ACCORDANCE WITH PERTINENT BUILDING AND STRUCTURAL DESIGN CODES.
4. WATER TANK CONCRETE FLOOR SHALL HAVE XYPEX CRACK / SEEPAGE CONTROL ADMIXTURE OR APPROVED SUBSTITUTE PER MANUFACTURER RECOMMENDATIONS.
5. ALL HANDRAILS, PLATFORM LANDINGS, WALKWAYS, LADDERS, AND SAFETY CLIMB DEVICES SHALL CONFORM WITH CURRENT OSHA STANDARDS.
6. SEE PROJECT SPECIFICATIONS FOR SHOP AND FIELD PAINT REQUIREMENTS.
7. DISINFECT TANK IN ACCORDANCE WITH AWWA C652-19 AND PROJECT SPECIFICATIONS.

FOUNDATION NOTES:

1. FOUNDATION CONSTRUCTION SHALL COMPLY WITH A.C.I. 318-14, A.C.I. 301-16, AWWA D100-21, AND APPLICABLE SECTIONS OF THE PROJECT SPECIFICATIONS AND THE PROJECT SOILS REPORT.
2. FOUNDATION DESIGN WILL BE THE RESPONSIBILITY OF THE TANK MANUFACTURER.
3. PEDESTAL AND FOOTING DIMENSIONS AND CONCRETE REINFORCEMENT SHALL BE DETERMINED BY THE TANK MANUFACTURER.
4. MINIMUM FOUNDATION CONCRETE COMPRESSIVE STRENGTH SHALL BE 4,000 P.S.I. AT 28 DAYS. REINFORCEMENT SHALL CONFORM TO ASTM A615 GR. 60.
5. CONSTRUCTION JOINTS SHALL BE ROUGHENED ACROSS ENTIRE FACE WITH 1/4" MINIMUM DEPTH INDENTATIONS.
6. THE TOP OF THE RINGWALL SHALL BE LEVEL WITHIN (±) 1/8" IN 30 FEET WITH A MAXIMUM DIFFERENTIAL OF (±) 1/4" BETWEEN ANY TWO POINTS ON THE CIRCUMFERENCE.
7. PROVIDE 1/2" THICK EXPANSION JOINT MATERIAL BETWEEN FLOOR AND WALL AND AT ALL PIPING PENETRATIONS.
8. REFER TO SUBSURFACE EXPLORATION REPORT PROVIDED BY TTL ASSOCIATES INC. (TTL PROJECT No. 2046501). FOR THE FOUNDATION DESIGN RECOMMENDATIONS.

BAR SCALE
2' 1' 0' 2' 4'
SCALE: 1/4"=1'-0"

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VILLAGE OF LYONS
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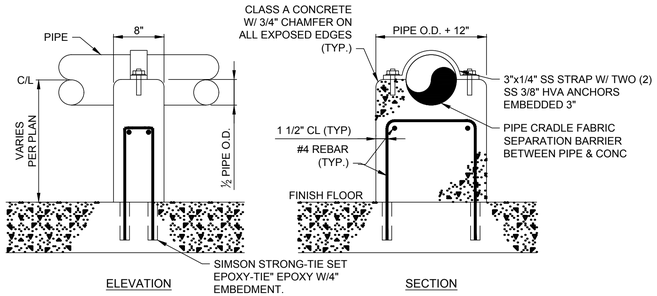
WATER TOWER PROJECT
FULTON COUNTY LYONS, OHIO

WATER TOWER FACILITY - 10 SERIES

WATER TOWER PLAN VIEWS

PROJECT NO.
220792
DISCIPLINE
PROCESS
SHEET NAME
10D-01
SHEET 9 OF 21



1 10D-02 CONCRETE PIPE SUPPORT DETAIL
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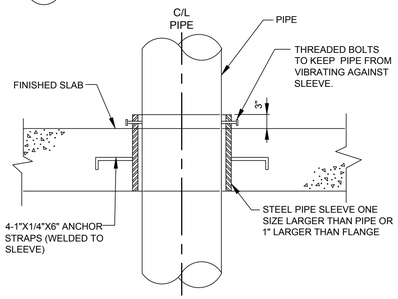

2 10D-02 FLOOR SLEEVE DETAIL
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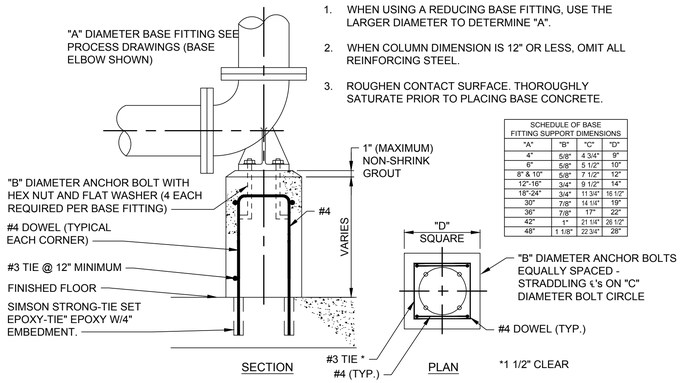


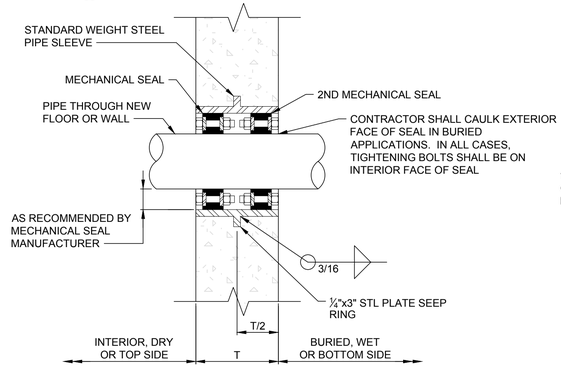
NOTES:

1. WHEN USING A REDUCING BASE FITTING, USE THE LARGER DIAMETER TO DETERMINE "A".
2. WHEN COLUMN DIMENSION IS 12" OR LESS, OMIT ALL REINFORCING STEEL.
3. ROUGHEN CONTACT SURFACE. THOROUGHLY SATURATE PRIOR TO PLACING BASE CONCRETE.

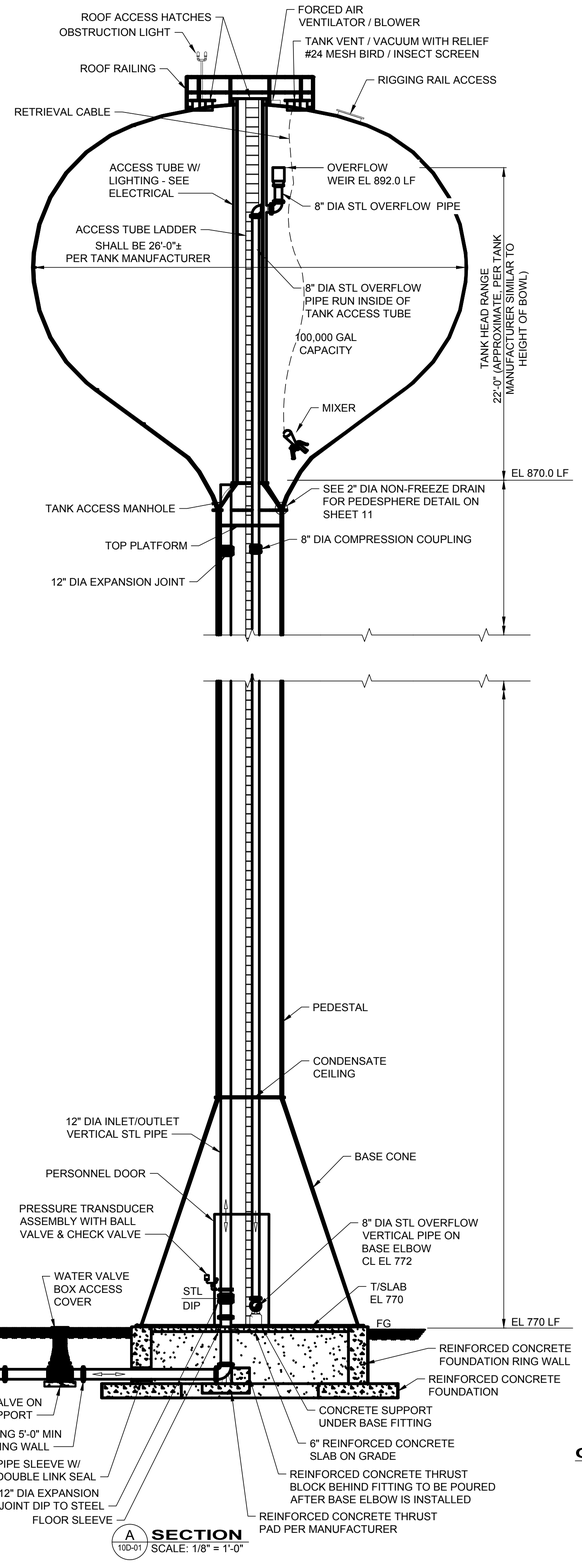
SCHEDULE OF BASE FITTING SUPPORT DIMENSIONS

"A"	"B"	"C"	"D"
4"	5/8"	4 3/4"	9"
6"	5/8"	5 1/2"	10"
8" & 10"	5/8"	7 1/2"	12"
12"-16"	3/4"	9 1/2"	14"
18"-24"	3/4"	11 3/4"	16 1/2"
30"	7/8"	14 1/4"	19"
36"	7/8"	17"	22"
42"	1"	21 1/4"	26 1/2"
48"	1 1/8"	22 3/4"	28"

3 10D-02 BASE FITTING ON CONCRETE SUPPORT DETAIL
NOT TO SCALE



4 10D-02 DOUBLE LINK SEAL DETAIL
NOT TO SCALE



A 10D-01 SECTION
SCALE: 1/8" = 1'-0"

TANK DESIGN NOTES:

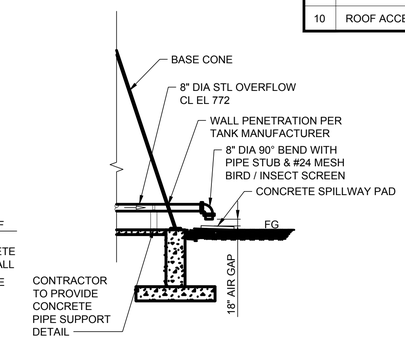
1. TANK AND SUPPORT STRUCTURE SHALL BE DESIGNED, FABRICATED AND ERECTED IN ACCORDANCE WITH AWWA D100-21 AND THE PROJECT SPECIFICATIONS.

WIND LOAD:	BASIC 3-SECOND GUST WIND SPEED 120 MPH, EXPOSURE CATEGORY C
SNOW LOAD:	20 PSF
SEISMIC DESIGN DATA:	Ss = 0.126 S1 = 0.055 SEISMIC DESIGN CATEGORY = C

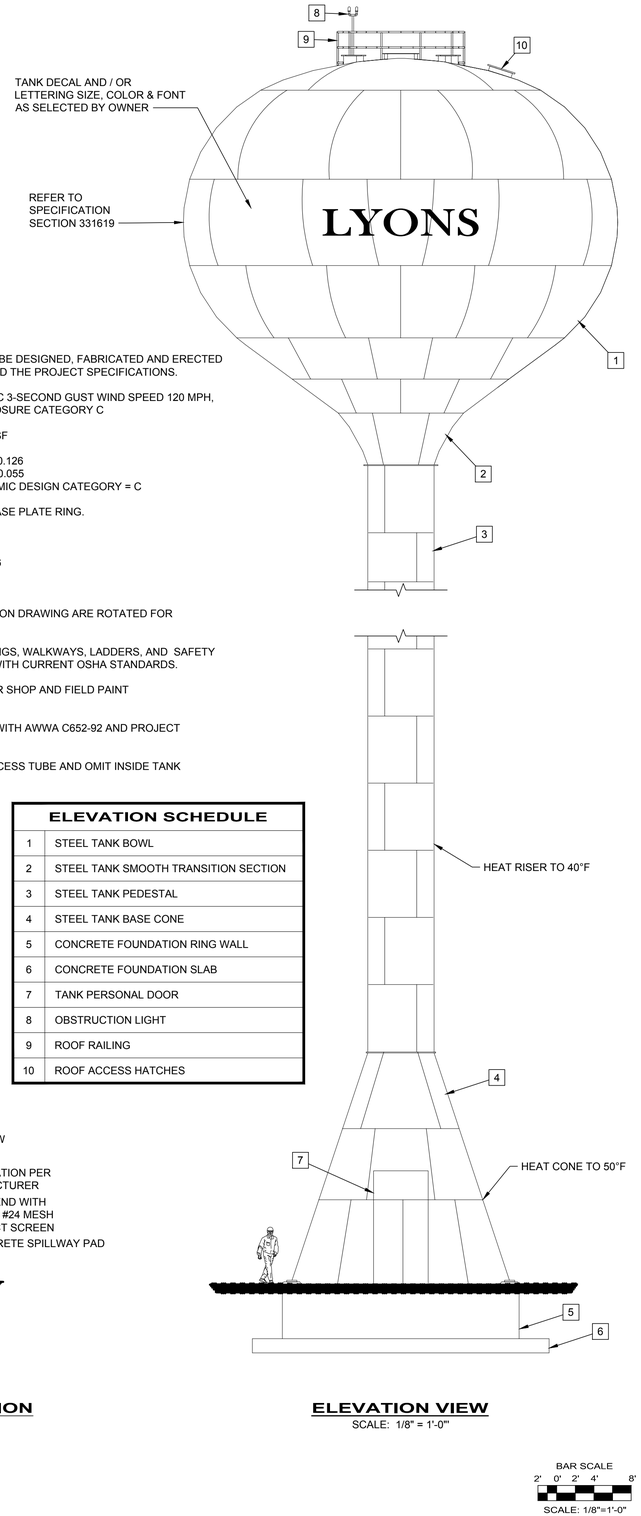
2. TANK ERECTOR SHALL GROUT UNDER BASE PLATE RING.
3. MATERIALS:
   STEEL PLATE: ASTM A283 GR.C / A36 S
   STRUCTURAL STEEL SHAPES: ASTM A36
   LADDER RUNGS: ASTM A706
4. GENERAL:
   A. ACCESSORIES SHOWN ON ELEVATION DRAWING ARE ROTATED FOR CLARITY.
   B. ALL HANDRAILS, PLATFORM LANDINGS, WALKWAYS, LADDERS, AND SAFETY CLIMB DEVICES SHALL CONFORM WITH CURRENT OSHA STANDARDS.
   C. SEE PROJECT SPECIFICATIONS FOR SHOP AND FIELD PAINT REQUIREMENTS.
   D. DISINFECT TANK IN ACCORDANCE WITH AWWA C652-92 AND PROJECT SPECIFICATIONS.
   E. ROUTE OVERFLOW PIPE INSIDE ACCESS TUBE AND OMIT INSIDE TANK LADDER.

ELEVATION SCHEDULE

1	STEEL TANK BOWL
2	STEEL TANK SMOOTH TRANSITION SECTION
3	STEEL TANK PEDESTAL
4	STEEL TANK BASE CONE
5	CONCRETE FOUNDATION RING WALL
6	CONCRETE FOUNDATION SLAB
7	TANK PERSONAL DOOR
8	OBSTRUCTION LIGHT
9	ROOF RAILING
10	ROOF ACCESS HATCHES



OVERFLOW OUTLET SECTION
SCALE: 1/8" = 1'-0"



ELEVATION VIEW
SCALE: 1/8" = 1'-0"

BAR SCALE
2' 0' 2' 4' 8'
SCALE: 1/8"=1'-0"

BID SET

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planners

NO	REVISION	DATE

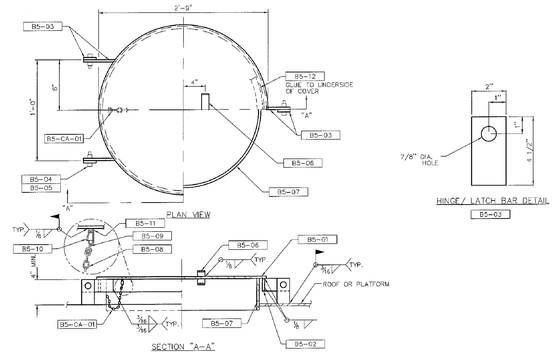
ISSUED FOR:	
ISSUE DATE:	10/1/2025
SCALE:	AS SHOWN
DESIGNED BY:	AM
DRAWN BY:	AMM
CHECKED BY:	RLM

VILLAGE OF LYONS
VILLAGE OF LYONS
WATER TOWER PROJECT
FULTON COUNTY
LYONS, OHIO

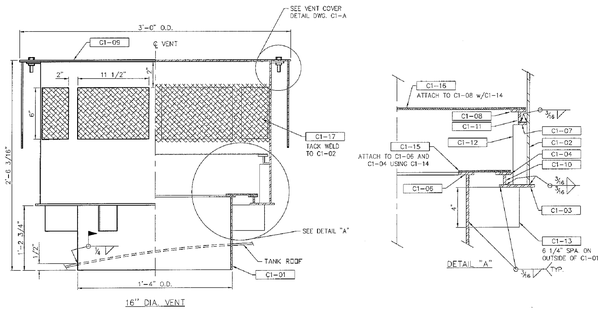
WATER TOWER FACILITY - 10 SERIES
WATER TOWER SECTION & ELEVATION

PROJECT NO.
220792
DISCIPLINE:
PROCESS
SHEET NAME
10D-02
SHEET
10
OF
21

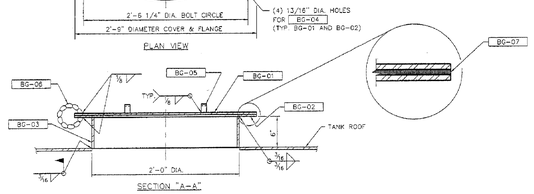
NOTE:
FIELD ADJUST CHAIN SUCH THAT MANHOLE COVER OPENS PAST VERTICAL BUT DOES NOT LAND ON ROOF OR ROOF ACCESSORY.



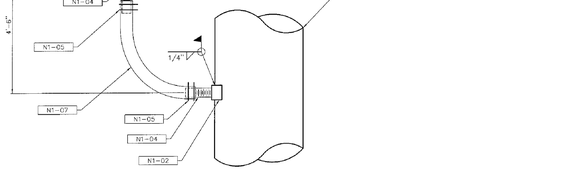
30" DIA ROOF MANHOLE DETAIL
NOT TO SCALE



16" DIA VENT DETAIL
NOT TO SCALE



24" DIA EXHAUST FAN MANHOLE DETAIL
NOT TO SCALE

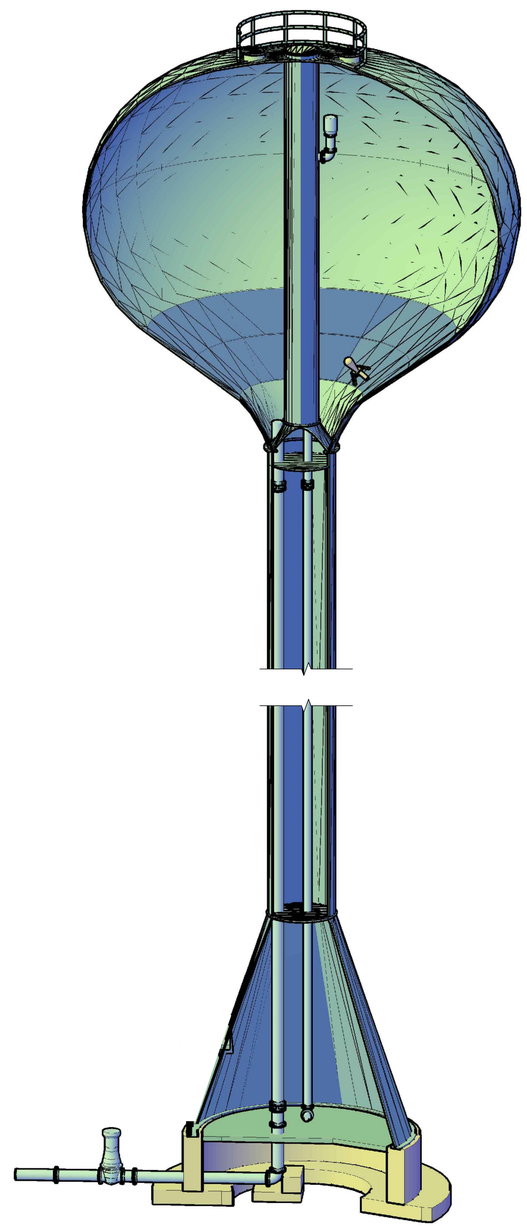


NOTES:
1. TEFLON TAPE TO BE USED FOR ALL THREADED CONNECTIONS.
2. PLUG SHALL REMAIN INSTALLED IN COUPLING UNTIL PAINTING OPERATIONS ARE COMPLETE.
3. ASSEMBLY N1-DV-02 SHALL BE SHIPPED TO PAINT SUBCONTRACTOR FOR INSTALLATION AS SHOWN AFTER PAINTING OPERATIONS ARE COMPLETE.

2" DIA NON-FREEZE DRAIN FOR PEDESPHERE DETAIL
NOT TO SCALE

WATER TANK DETAIL NOTES:

1. THIS DRAWING ILLUSTRATES GENERAL WATER TANK DETAILS, STANDARD DETAILS FOR WATER TANKS VARY PER MANUFACTURER,CONTRACTOR TO COORDINATE WITH WATER TANK MANUFACTURER SHOP DRAWINGS FOR FINAL STANDARD DETAILS.



ELEVATED WATER STORAGE TANK 3D CONCEPT
SCALE: 1/8" = 1'-0"

BAR SCALE
2' 0' 2' 4' 8'
SCALE: 1/8"=1'-0"

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ISSUE DATE:	10/1/2025
SCALE:	AS SHOWN
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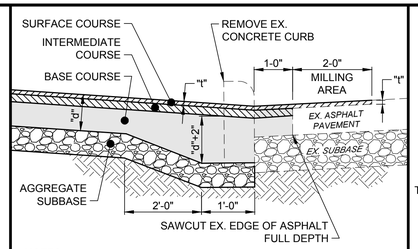
DRAWN BY:	AMM
CHECKED BY:	RLM

VILLAGE OF LYONS
VILLAGE OF LYONS
WATER TOWER PROJECT
FULTON COUNTY
LYONS, OHIO

WATER TOWER FACILITY - 10 SERIES

WATER TOWER 3D CONCEPT & DETAILS

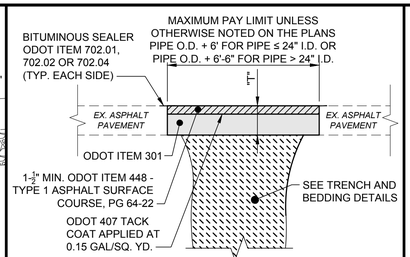
PROJECT NO.
220792
DISCIPLINE
PROCESS
SHEET NAME
10D-03
SHEET 11 OF 21



NOTES:

1) "t" IS THE THICKNESS OF THE NEW ASPHALT SURFACE COURSE. SEE THE SEPARATE ASPHALT PAVEMENT DETAIL.
2) TACK COAT SHALL BE APPLIED TO THE EXPOSED EX. ASPHALT BASE COURSE AND ALL SIDES OF EACH PATCH.
3) A SEALANT SHALL BE APPLIED AROUND THE EDGE OF EACH PATCH.

1 BUTT JOINT DETAIL
20G-01 NOT TO SCALE

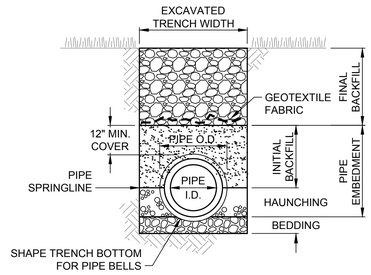


"T" = 4-½" MIN. FOR PUBLIC ROADWAYS, COMMERCIAL DRIVES AND DRIVE APRONS.

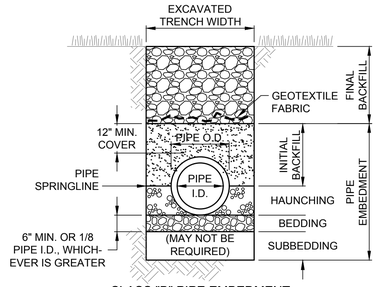
"T" = 2-½" MIN. FOR RESIDENTIAL DRIVEWAYS AND DRIVE APRONS ONLY (DRIVEWAY).

IN NO CASE SHALL THE THICKNESS OF THE OVERLAY AND/OR "T" BE LESS THAN THE EXISTING PAVEMENT THICKNESS.

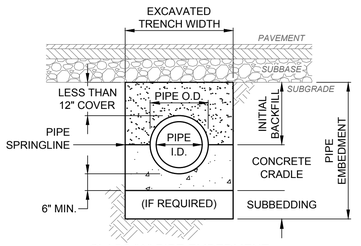
2 TYPE C PAVEMENT REPLACEMENT DETAIL
20G-01 NOT TO SCALE



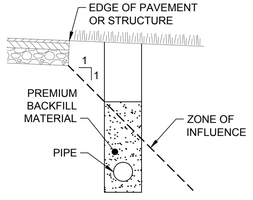
CLASS "C" PIPE EMBEDMENT



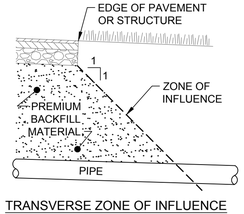
CLASS "B" PIPE EMBEDMENT



CLASS "A" PIPE EMBEDMENT



PARALLEL ZONE OF INFLUENCE



TRANSVERSE ZONE OF INFLUENCE

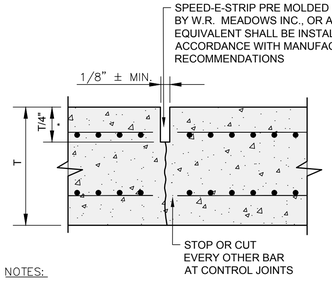
1) EXCAVATED TRENCH WIDTH: MEASURED FROM BOTTOM OF TRENCH TO 12" OVER TOP OF PIPE (WITHIN THE PIPE EMBEDMENT), THE MIN. TRENCH WIDTH SHALL BE 9" AND THE MAX. SHALL BE:
   - O.D.+24" FOR 24" AND SMALLER I.D. PIPE
   - O.D.+30" FOR 27" THRU 72" I.D. PIPE
   - O.D.+48" FOR 84" AND LARGER I.D. PIPE
2) FINAL BACKFILL: ALL AREAS UNDER PAVEMENT, STRUCTURES OR WITHIN THE ZONE OF INFLUENCE SHALL BE PREMIUM BACKFILL (ODOT ITEM 304 LIMESTONE). PAVEMENT INCLUDES ROADWAY, SHOULDER AND DRIVEWAY, BUT NOT SIDEWALK. NO SLAG OR SLACKER AGGREGATES ALLOWED. IN ALL OTHER AREAS, THE FINAL BACKFILL SHALL BE SUITABLE ON-SITE MATERIAL.
3) PIPE EMBEDMENT:

   CLASS "A": SHALL BE USED FOR ALL PIPES UNDER PAVEMENT OR STRUCTURES WITH LESS THAN 12" OF PIPE COVER TO THE SUBGRADE. THE CONCRETE CRADLE SHALL BE IN ACCORDANCE WITH ODOT ITEM 499, CLASS QC-1. THE INITIAL BACKFILL SHALL BE NO. 57 COURSE INTERLOCKING LIMESTONE AGGREGATE.

   CLASS "B": SHALL BE USED FOR ALL PIPES UNLESS OTHERWISE NOTED ON THE PLANS. ALL PIPE EMBEDMENT FOR PLASTIC PIPE SHALL BE SAND. FOR NON-PLASTIC PIPE, BEDDING AND HAUNCHING SHALL BE NO. 8 OR 57 COURSE INTERLOCKING LIMESTONE AGGREGATE. IN AREAS UNDER PAVEMENT, STRUCTURES OR WITHIN THE ZONE OF INFLUENCE, THE INITIAL BACKFILL SHALL BE NO. 8 OR 57 COURSE INTERLOCKING LIMESTONE AGGREGATE. IN ALL OTHER AREAS, THE INITIAL BACKFILL MAY BE SUITABLE ON-SITE MATERIAL FOR RIGID PIPE.

   CLASS "C": SHALL BE USED ONLY FOR DUCTILE IRON WATER MAIN OR FORCE MAIN. THE PIPE EMBEDMENT SHALL BE NO. 8 OR 57 COURSE INTERLOCKING LIMESTONE AGGREGATE IN ALL AREAS UNDER PAVEMENT, STRUCTURES OR WITHIN THE ZONE OF INFLUENCE. IN ALL OTHER AREAS, THE PIPE EMBEDMENT SHALL BE SUITABLE ON-SITE MATERIAL. BEDDING IS NOT REQUIRED. WHERE ROCK OR SHALE IS ENCOUNTERED, BEDDING SHALL BE 6" MIN. OF NO. 8 OR 57 COURSE INTERLOCKING LIMESTONE AGGREGATE OR SAND.
4) SUBBEDDING: WHERE AN UNSTABLE TRENCH BOTTOM CONDITION IS ENCOUNTERED, EXCAVATE TO A DEPTH REQUIRED BY THE ENGINEER AND REPLACE WITH MATERIAL AS DIRECTED BY THE ENGINEER.
5) GEOTEXTILE FABRIC SHALL BE PER ODOT 712.09, TYPE A, AND INSTALLED AFTER ALL INITIAL BACKFILL.
6) CLAY TRENCH DAMS SHALL BE REQUIRED AS SHOWN ON PLANS OR AS DIRECTED BY THE ENGINEER.

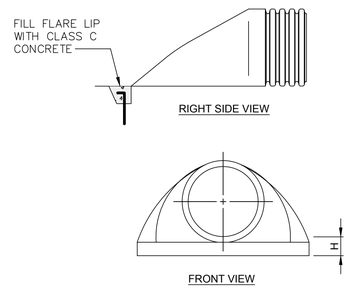
4 TRENCHING, EMBEDMENT AND BACKFILL DETAIL
20G-01 NOT TO SCALE

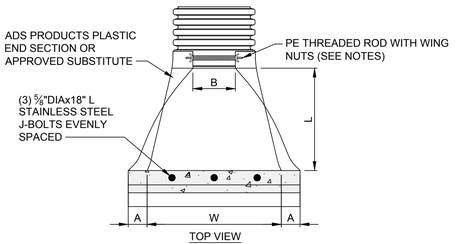


NOTES:

1. THE "SOFF-CUT" MACHINE BY SOFF-CUT INTERNATIONAL MAY BE USED TO CUT CONTROL JOINTS WITHIN APPROXIMATELY 2 HOURS AFTER FINAL FINISHING. THE DEPTH OF CUT SHALL BE AS RECOMMENDED BY THE MANUFACTURER.
2. IF CONTROL JOINTS ARE SAW CUT PER NOTE #1 THEY SHALL BE FLUSHED WITH CLEAN WATER, ALLOWED TO DRY AND THEN FILLED WITH A JOINT SEALANT. * T/4 FOR PRE MOLDED INSERTS ONLY

3 CONTROL JOINT TYPE "C"
20G-01 NOT TO SCALE





ADS PART NO.	PIPE SIZE	A	B (MAX.)	H	L	W
1210NP	12"	6.5"	10"	6.5"	25"	29"
1510NP	15"	6.5"	10"	6.5"	25"	29"
1810NP	18"	7.5"	15"	6.5"	32"	35"
2410NP	24"	7.5"	18"	6.5"	36"	45"
3012NP	30"	10.5"	N/A	7.0"	53"	68"
3612NP	36"	10.5"	N/A	7.0"	53"	68"

NOTES:

1. PE THREADED ROD WITH WING NUTS PROVIDED FOR END SECTIONS 12"-24". 30" & 36" END SECTIONS TO BE WELDED TO PIPE PER MANUFACTURER'S RECOMMENDATIONS.
2. ALL DIMENSIONS ARE NOMINAL.

5 STORM PIPE FLARED END SECTION DETAIL
20G-01 NOT TO SCALE

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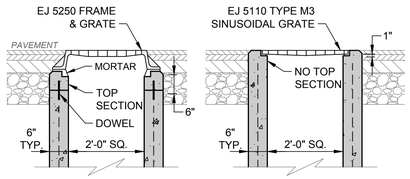
NO	REVISION	DATE

ISSUED FOR: BID SET
ISSUE DATE: 11/19/2025
SCALE: AS SHOWN
DESIGNED BY: AMM
DRAWN BY: AMM
CHECKED BY: RLM

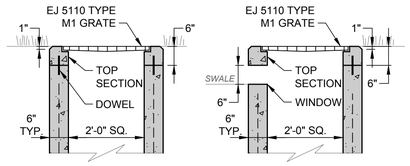
VILLAGE OF LYONS
VILLAGE OF LYONS WATER TOWER PROJECT
FULTON COUNTY LYONS, OHIO
CONSTRUCTION DETAILS - 20 SERIES
CONSTRUCTION DETAILS 1

PROJECT NO. 220792
DISCIPLINE DETAILS
SHEET NAME 20G-01
SHEET 12 OF 21



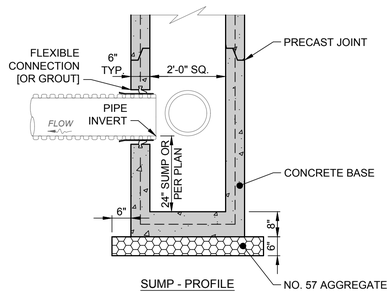
PAVED AREA

ALTERNATE #1: PAVED AREA

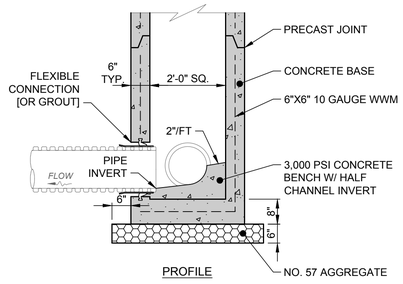


GRASS AREA

GRASS AREA W/ WINDOW



SUMP - PROFILE



PROFILE

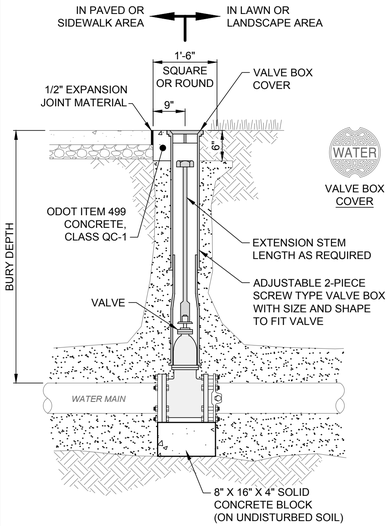
NOTES:

1. CONCRETE SHALL BE ODOT ITEM 499, CLASS QC-1.
2. STRUCTURE SHALL MEET H-20 LOADING.
3. PRECAST CONCRETE STRUCTURE AND REINFORCEMENT SHALL CONFORM TO ASTM C-913.
4. PRECAST KNOCKOUT SIDES FOR CURB DRAIN AND PIPE CONNECTION HOLES, AS REQUIRED. PIPE OPENINGS SHALL BE O.D. OF PIPE PLUS 2", AND INTERSTITIAL SPACE FILLED WITH GROUT [. . . OR . . . . . ALL PIPE OPENINGS MUST BE PRECAST WITH FLEXIBLE CONNECTIONS (Z-LOK OR A-LOK) PER ASTM C-923].
5. IF TOP SECTION IS A SEPARATE CAST PIECE, 1/2"Ø X 6" L DOWELS SHALL BE USED AT EACH CORNER TO ATTACH THE TOP TO THE BOTTOM SECTIONS OF BASIN.
6. GRATE MUST INCLUDE LETTERING "DUMP NO WASTE" AND FISH IMAGE.
7. THIS DETAIL IS FOR REFERENCE AND DIMENSION CONTROL ONLY; SEE UTILITY PLAN FOR ACTUAL PIPE SIZES AND ELEVATIONS.

(PRECAST CONCRETE 2'X2') INLET BASIN DETAIL

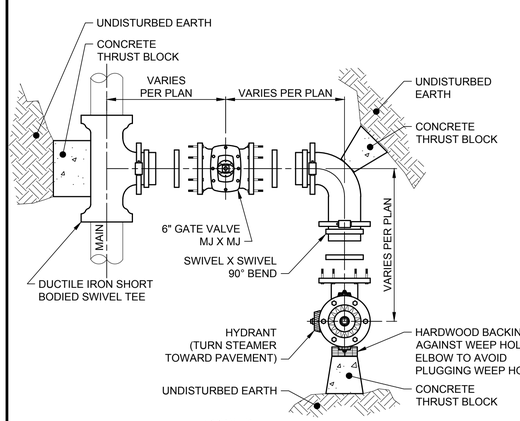
1 / 20G-02

SCALE: NONE

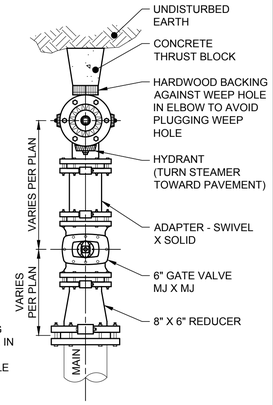


WATER VALVE AND VALVE BOX SETTING DETAIL

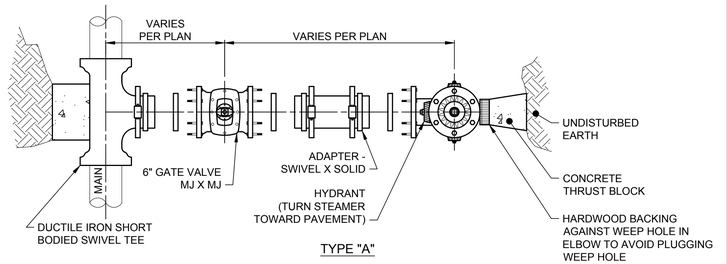
2 / 20G-02 NOT TO SCALE



TYPE "B"



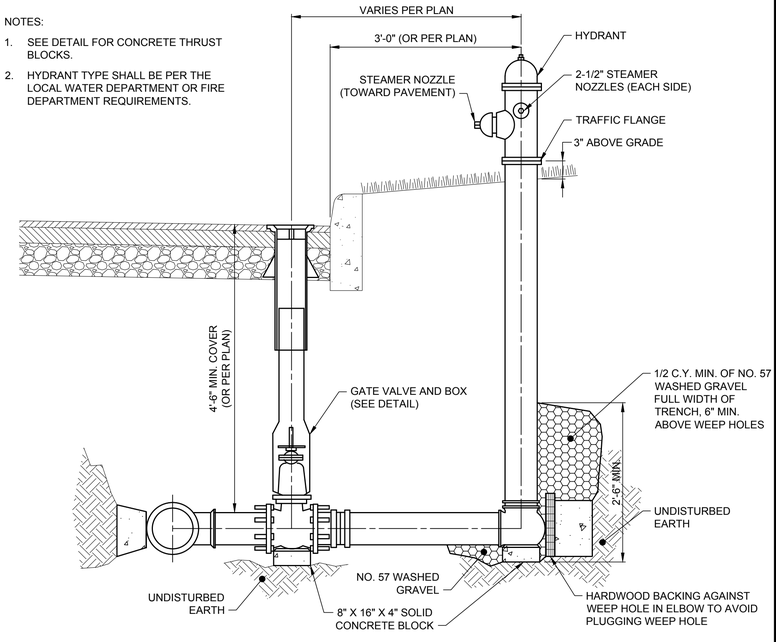
TYPE "C"



TYPE "A"

NOTES:

1. SEE DETAIL FOR CONCRETE THRUST BLOCKS.
2. HYDRANT TYPE SHALL BE PER THE LOCAL WATER DEPARTMENT OR FIRE DEPARTMENT REQUIREMENTS.



HYDRANT ASSEMBLY DETAIL

3 / 20G-02 NOT TO SCALE

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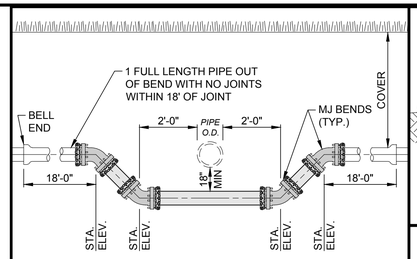
ISSUED FOR: BID SET
ISSUE DATE: 10/1/2025
SCALE: AS SHOWN
DESIGNED BY: AMM
DRAWN BY: AMM
CHECKED BY: RLM

VILLAGE OF LYONS
VILLAGE OF LYONS
WATER TOWER PROJECT
FULTON COUNTY LYONS, OHIO

CONSTRUCTION DETAILS - 20 SERIES
CONSTRUCTION DETAILS 2

PROJECT NO. 220792
DISCIPLINE DETAILS
SHEET NAME 20G-02
SHEET 13 OF 21

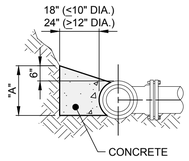


NOTES:

1. ENTIRE OFFSET INCLUDING BENDS SHALL BE BUILT WITH DUCTILE IRON RESTRAINED MECHANICAL JOINTS, CLASS 52 CEMENT LINED PIPE. IF AN INTERMEDIATE JOINT IS REQUIRED BETWEEN BENDS, THE ENTIRE UNDERPASS SHALL BE BUILT WITH BOLTLESS RESTRAINED PIPE AND FITTINGS.

1 WATER MAIN UNDERPASS FOR OBSTRUCTION LESS THAN 24" DIAMETER OR WIDTH DETAIL

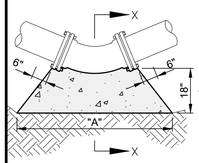
20G-03 NOT TO SCALE



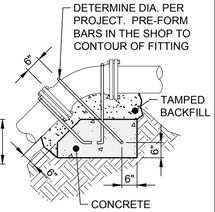
SECTION VIEW X-X

NOTES:

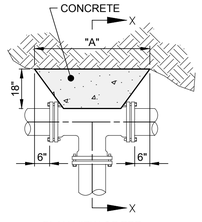
1. ALL CONCRETE SHALL BE ODOT ITEM 499, CLASS QC-1.
2. ALL DIMENSIONS SHOWN ARE MINIMUMS.
3. THRUST BLOCKS SHALL BE POURED TO UNDISTURBED EARTH.



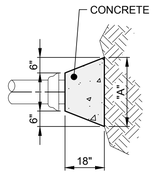
HORIZONTAL BEND OR VERTICAL BEND (UPWARD)



VERTICAL BEND (DOWNWARD)



PLAN VIEW OF TEE



PLUG OR CAP

MIN. CONCRETE VOLUME FOR VERTICAL BENDS

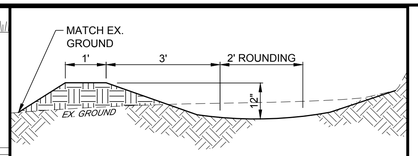
DIA.	VOLUME
6"	4 C.F.
8"	11 C.F.
10"	22 C.F.
12"	37 C.F.
16"	71 C.F.

"A" DIMENSIONS

HORIZONTAL BENDS					
DIA.	90°	45°	22.5°	TEE	PLUG
6"	17"	13"	9"	13"	14"
8"	23"	17"	12"	17"	19"
10"	28"	21"	15"	21"	24"
12"	34"	25"	18"	25"	29"
16"	45"	33"	24"	28"	38"

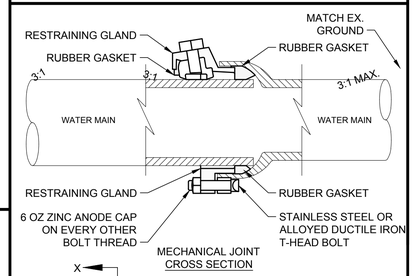
2 CONCRETE THRUST BLOCK DETAIL

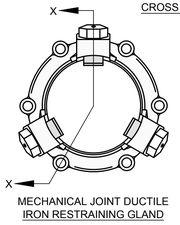
20G-03 NOT TO SCALE



3 SWALE DETAIL

20G-03 NOT TO SCALE



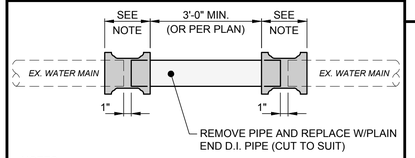


MECHANICAL JOINT DUCTILE IRON RESTRAINING GLAND

NOTE:
DIP RESTRAINED GLAND SHALL BE USED ON ALL FITTINGS.

4 MECHANICAL JOINT DUCTILE IRON RESTRAINING GLANDS DETAIL

20G-03 NOT TO SCALE

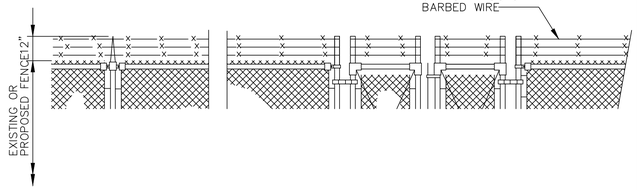


NOTES:

1. CONNECTION SHALL BE MADE WITH RESTRAINED MECHANICAL JOINT SOLID SLEEVES OF D.I. CLASS 350 OR COMPRESSION COUPLINGS. COMPRESSION COUPLINGS SHALL BE GASKET, SLEEVE TYPE.
2. EACH COUPLING SHALL CONSIST OF (1) MIDDLE RING WITHOUT STOPS; (2) FOLLOWER GLANDS; (2) RUBBER COMPOUND WEDGE SECTION GASKETS; AND STAINLESS STEEL BOLTS AND NUTS (ASTM A276/A193/194, TYPE 304). THE MIDDLE RING AND FOLLOWER GLANDS SHALL BE EITHER STEEL OR DUCTILE IRON (ASTM-A536).

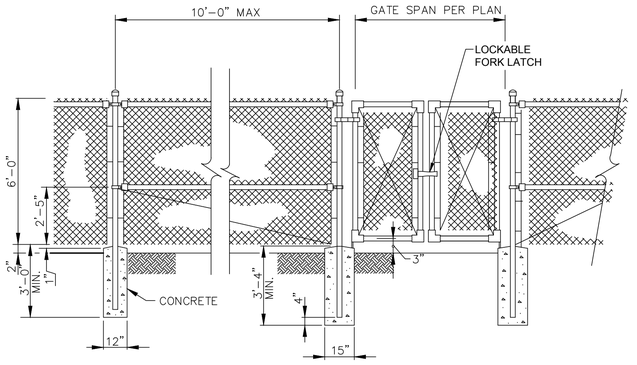
5 SPOOL PIECE DETAIL

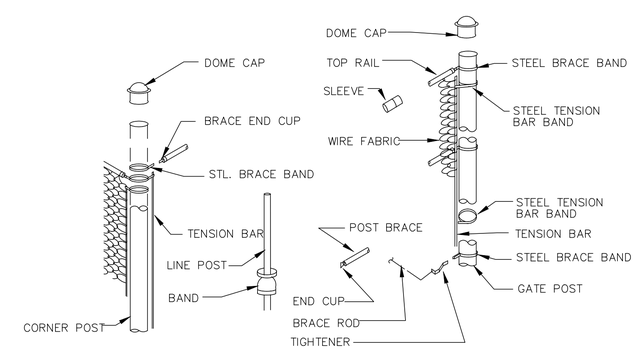
20G-03 NOT TO SCALE



6 TYPCIAL BARBED WIRE DETAIL

20G-03 NOT TO SCALE





7 TYPICAL FENCE ASSEMBLY DETAIL

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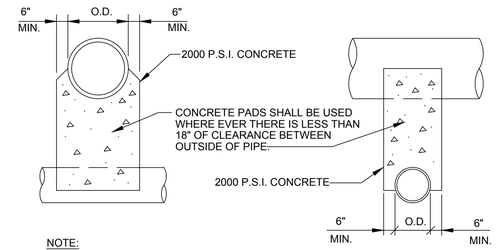
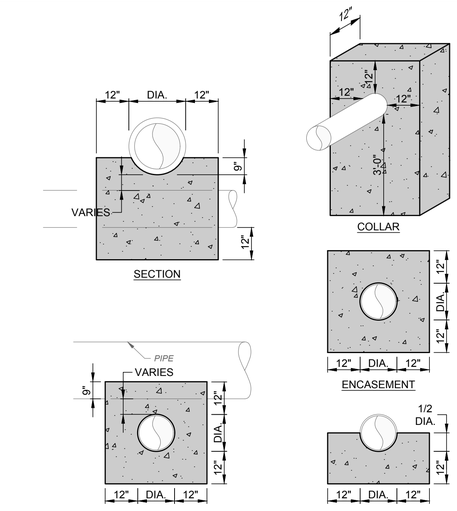


NOTE:

UNLESS OTHERWISE DIRECTED BY THE ENGINEER, WHERE TWO PIPES (SEWER & WATER) CROSS EACH OTHER, A CONCRETE PAD AND CRADLE SEPERATOR SHALL BE PLACED BETWEEN THEM AS INDICATED ABOVE. WHERE PERMISSION IS GRANTED TO OMIT THE CONCRETE PADS, GRANULAR BACKFILL SHALL BE TAMPED IN 6" LAYERS AROUND BOTH PIPES. SUCH TAMPED BACKFILL SHALL BE CONTINUOUS FROM THE CRADLE OF THE LOWER PIPE TO THE TOP OF THE UPPER PIPE AND AT THE BOTTOM SHALL EXTEND IN BOTH DIRECTIONS, FOR THE FULL WIDTH OF THE TRENCH.

8 PIPE CROSSING DETAIL

20G-03 NOT TO SCALE



NOTES:

1) ALL CONCRETE SHALL BE ODOT ITEM 499 CONCRETE, CLASS QC-1.

9 CONCRETE PIPE CRADLE DETAIL

20G-03 NOT TO SCALE

BID SET

your trusted advisor
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NO	REVISION	DATE

ISSUED FOR:	10/1/2025
ISSUE DATE:	AS SHOWN
SCALE:	AMM
DESIGNED BY:	AMM
DRAWN BY:	RLM
CHECKED BY:	

VILLAGE OF LYONS
VILLAGE OF LYONS
WATER TOWER PROJECT
FULTON COUNTY
LYONS, OHIO

CONSTRUTION DETAILS - 20 SERIES
CONSTRUCTION DETAILS 3

PROJECT NO.
220792

DISCIPLINE
DETAILS

SHEET NAME
20G-03

SHEET 14 OF 21

ELECTRICAL SYMBOLS - PLAN:

- HOME RUN TO PANEL
- MOTOR
- MOTOR CONTROLLER
- FUSIBLE SAFETY SWITCH
- NON-FUSIBLE DISCONNECT SWITCH
- DUPLEX RECEPTACLE
- SPECIAL RECEPTACLE, NEMA TYPE NOTED
- SINGLE-POLE SWITCH, 3 INDICATES 3-WAY, OS INDICATES OCCUPANCY SENSING
- DRY-TYPE TRANSFORMER
- PUSHBUTTON STATION
- LOUVER OPERATOR
- JUNCTION BOX
- (SV) SOLENOID VALVE
- (ZS) LIMIT SWITCH
- (FE) (FIT) FLOW SENSOR, FLOW INDICATING TRANSMITTER
- (LE) (LIT) LEVEL SENSOR, LEVEL INDICATING TRANSMITTER
- (PE) (PIT) PRESSURE SENSOR, PRESSURE INDICATING TRANSMITTER
- (AE) (AIT) OTHER SENSOR / INDICATING TRANSMITTER AS NOTED
- A HAZARDOUS AREA LIGHT FIXTURE
- B OUTDOOR CANOPY LIGHT FIXTURE
- C EXTERIOR WALL-PACK LIGHT FIXTURE
- D HIGH BAY LIGHT FIXTURE
- E LINEAR LED LIGHT FIXTURE
- EXIT SIGN
- EMERGENCY WALL-PACK
- EMERGENCY REMOTE HEAD
- (F) (F) (F) FIRE ALARM PULL STATION, STROBE, HORN-STROBE
- (SD) FIRE ALARM AREA SMOKE DETECTOR

ELECTRIC SYMBOLS - UTILITIES:

EX:	PR:	
AC	AC	AIR CONDITIONING UNIT
CB	CB	ELECTRIC CONTROL BOX
JB	JB	ELECTRIC JUNCTION BOX
PB	PB	ELECTRIC PULL BOX
RI	RI	ELECTRIC RISER BOX
VLT	VLT	ELECTRIC VAULT BOX
		ELECTRIC LIGHT - GROUND
		ELECTRIC LIGHT - POST
		ELECTRIC MARKER POST
EM	EM	ELECTRIC METER
		ELECTRIC MANHOLE - 48"
		ELECTRIC MANHOLE - 48" - ADJUST
		ELECTRIC MANHOLE - LID
		ELECTRIC PAINT MARK
EP	EP	ELECTRIC PEDESTAL
TR	TR	ELECTRIC TRANSFORMER

SINGLE LINE, ELEMENTARY, & INTERCONNECTION DIAGRAMS (ONLY) SYMBOLOGY:

- 30A 3P — DISCONNECT SWITCH - AMP RATING
- 30A 3P — FUSE - AMP RATING
- 30A [S] / 30A 3P — CIRCUIT BREAKER - AMP RATING
- (40) MOTOR W / HORSEPOWER INDICATED
- (AM) AMMETER
- (VM) VOLT METER
- (PF) POWER FACTOR METER
- (GF) GROUND FAULT RELAY
- TRANSFORMER
- (CR) RELAY COIL
- (TR) TIMING RELAY COIL
- (MS) MOTOR STARTER COIL
- [ETM] ELAPSED TIME TOTALIZER
- [G] GROUNDING BUS
- [SPD] TRANSIENT VOLTAGE SURGE SUPPRESSOR
- N.O. LIMIT SWITCH
- N.O. FLOW SWITCH
- N.O. LEVEL SWITCH
- N.O. PRESSURE SWITCH
- N.O. TEMPERATURE SWITCH
- N.O. TIME DELAY AFTER ENERGIZATION
- N.C. TIME DELAY AFTER ENERGIZATION
- N.C. TIME DELAY AFTER DE-ENERGIZATION
- N.O. TIME DELAY AFTER DE-ENERGIZATION
- N.O. SWITCH (GENERAL)
- START PUSHBUTTON NORMALLY OPEN
- STOP PUSHBUTTON NORMALLY CLOSED
- TAG COM NO1 XREF — CONTACT - NORMALLY OPEN
- TAG COM NC XREF — CONTACT - NORMALLY CLOSED
- SOLENOID COIL
- (CLR) PILOT LIGHT - PUSH TO TEST (COLOR)
- GROUND
- CAPACITOR
- X0 0X — 2 POSITION SELECTOR SWITCH
- X00 00X — 3 POSITION SELECTOR SWITCH
- EQUIPMENT FIELD TERMINAL

ELECTRICAL LINE SYMBOLOGY:

PROPOSED:

- CONDUIT AND WIRE RUN EXPOSED
- CONDUIT AND WIRE BELOW GRADE
- ELEC — ELEC — ELECTRIC LINE
- ELEC-OH — ELEC-OH — ELECTRIC LINE - OH
- ELEC-UG — ELEC-UG — ELECTRIC LINE - UG
- ELEC — ELEC — ELEC — ELEC SERVICE
- ELEC-OH — ELEC-OH — ELEC-OH — ELEC SERVICE - OH
- ELEC-UG — ELEC-UG — ELEC-UG — ELEC SERVICE - UG
- LIGHT-OH — LIGHT-OH — LIGHT-OH — ELEC LIGHTING - OH
- LIGHT-UG — LIGHT-UG — LIGHT-UG — ELEC LIGHTING - UG

EXISTING:

- *ELEC — ELEC — ELECTRIC LINE*
- *ELEC-ABAN — ELEC-ABAN — ELEC-ABAN — ELECTRIC LINE - ABAN.*
- *ELEC-OH — ELEC-OH — ELECTRIC LINE - OH*
- *ELEC-UG — ELEC-UG — ELECTRIC LINE - UG*
- *ELEC — ELEC — ELEC — ELECTRIC SERVICE*
- *ELEC-OH — ELEC-OH — ELEC-OH — ELECTRIC SERVICE - OH*
- *ELEC-UG — ELEC-UG — ELEC-UG — ELECTRIC SERVICE - UG*
- *LIGHT-OH — LIGHT-OH — LIGHT-OH — ELECTRIC LIGHTING - OH*
- *LIGHT-UG — LIGHT-UG — LIGHT-UG — ELECTRIC LIGHTING - UG*
- *ELECTRIC DUCT*

ELECTRICAL CODED NOTES:

- (1) NEW WORK - NOTE 1
- (2) NEW WORK - NOTE 1
- (3) NEW WORK - NOTE 1
- [1] DEMOLITION - NOTE 1
- [2] DEMOLITION - NOTE 2
- [3] DEMOLITION - NOTE 3
- 1 REVISION - NOTE 1
- 2 REVISION - NOTE 2
- 3 REVISION - NOTE 3

ELECTRICAL DETAIL REFERENCE:

ABBREVIATIONS:

A	AMPS
AF	AMPERE FRAME
AI	ANALOG INPUT (PLC)
AL	ALUMINUM
AM	AMMETER
AO	ANALOG OUTPUT (PLC)
AP	ALARM PANEL
AT	AMPERE TRIP
AWG	AMERICAN WIRE GAUGE
C	CONDUIT
CAP	CAPACITOR
CB	CIRCUIT BREAKER
CJB	CONTROL JUNCTION BOX
CP	CONTROL PANEL
CPT	CONTROL POWER TRANSFORMER
CR	CORROSION RESISTANT
CS	CONTROL STATION
CT	CURRENT TRANSFORMER
CU	COPPER
DB	DUCT BANK
DI	DIGITAL INPUT (PLC)
DO	DIGITAL OUTPUT (PLC)
EAG	ELECTRICALLY ACTIVATED GATE
EAV	ELECTRICALLY ACTIVATED VALVE
EF	EXHAUST FAN
ESPB	EMERGENCY STOP PUSHBUTTON (MAINTAINED)
ETT	ELAPSED TIME TOTALIZER
EWD	ELEMENTARY WIRING DIAGRAM
FDS	FUSED DISCONNECT SWITCH
FLA	FULL LOAD AMPERES
FS	FLOW SWITCH
FVC	FULL VOLTAGE CONTACTOR
FVNR-1	FULL VOLTAGE NON-REVERSING STARTER SIZE 1
GFI	GROUND FAULT INTERRUPTER
GND	GROUND
GFR	GROUND FAULT RELAY
HOA	HAND/OFF/AUTO SELECTOR SWITCH
HP	HORSEPOWER
HT	HIGH TORQUE SWITCH
HTR	HEATER
Hz	HERTZ
IAW	IN ACCORDANCE WITH
ICP	INSTRUMENTATION & CONTROL PANEL
IPP	INSTRUMENT POWER PANEL
JB	JUNCTION BOX
JBC	JUNCTION BOX-CONTROL
JBM	JUNCTION BOX-METERING
JBP	JUNCTION BOX-POWER
kCM	KILO (1000) CIRCULAR MILL
kVA	KILOVOLT AMPERES
kVAR	KILOVOLT AMPERES-REACTIVE
kW	KILOWATT
LA	LIGHTING ARRESTOR
LGT	LIGHT
LOR	LOCAL/OFF/REMOTE SELECTOR SWITCH
LP	LIGHTING PANEL
LS	LEVEL SWITCH
MCC	MOTOR CONTROL CENTER
MCP	MOTOR CIRCUIT PROTECTOR
MDP	MAIN DISTRIBUTION PANEL
MJB	METERING JUNCTION BOX
NEC	NATIONAL ELECTRICAL CODE
NEMA	NATIONAL ELECTRICAL MFR ASSOC.
NEUT	NEUTRAL
NFDS	NON-FUSED DISCONNECT SWITCH
OCSS	OPEN/CLOSE SELECTOR SWITCH
OL	OVERLOAD
OOSS	ON/OFF SELECTOR SWITCH
OS	OCCUPANCY SENSING
OT	OVER TORQUE SWITCH
P	POLE
PB	PUSHBUTTON
PBC	PULLBOX-CONTROL
PBM	PULLBOX-METERING
PBP	PULLBOX-POWER
PC	PHOTO CONTROL
PF	POWER FACTOR
PH	PHASE
PLC	PROGRAMMABLE LOGIC CONTROLLER
PJB	POWER JUNCTION BOX
PP	POWER PANEL
PRI	PRIMARY
PS	PRESSURE SWITCH
PT	POTENTIAL TRANSFORMER
R	RELAY
RCP	REINFORCED CONCRETE PIPE
RL	RUN LIGHT
SCP	SURGE CONTROL PANEL
SCR	SILICON-CONTROLLED RECTIFIER
SEC	SECONDARY
SF	SUPPLY FAN
SHLD	SHIELDED
SP	SHEAR PIN SWITCH
SPK	SPEAKER
SS	SELECTOR SWITCH OR STAINLESS STEEL
SSOR	SOLID STATE OVERLOAD RELAY
SSPB	START/STOP PUSHBUTTON
SSS	SOLID STATE STARTER
STD	STANDARD
STP	SHIELDED TWISTED PAIR
STRTR	STARTER
SV	SOLENOID VALVE
SW	SWITCH
T	TELEPHONE
TB	TERMINAL BOARD
TC	TIME CLOCK
TD	TRENCH DUCT
TEB	TELEPHONE EQUIPMENT BACKBOARD
TEMP	TEMPERATURE
TOR	THERMAL OVERLOAD RELAY
TR	TIMING RELAY
TSTAT	THERMOSTAT
TVSS	TRANSIENT VOLTAGE SUPPRESSOR
UH	UNIT HEATER
UON	UNLESS OTHERWISE NOTED
UPS	UNINTERRUPTIBLE POWER SUPPLY
UTP	UNSHIELDED TWISTED PAIR
V	VOLTS
VC	VOLUME CONTROL
VFD	VARIABLE FREQUENCY DRIVE
VM	VOLT METER
XP	EXPLOSION PROOF
XFMR	TRANSFORMER
WP	WATERPROOF
ZS	LIMIT SWITCH

ELECTRICAL GENERAL NOTES:

1. THE ELECTRICAL CONTRACTOR SHALL APPLY FOR AND SECURE ALL COSTS AND CHARGES FOR PERMITS, CONSTRUCTION, AND MISCELLANEOUS WORK ASSOCIATED WITH AND REQUIRED FOR THE COMPLETION OF THE PROJECT ELECTRICAL WORK.
2. THE ELECTRICAL CONTRACTOR SHALL ARRANGE FOR ALL INSPECTIONS OF ELECTRICAL WORK BY ALL INSPECTION AUTHORITIES HAVING JURISDICTION. COPIES OF INSPECTION REPORTS SHALL BE MADE AVAILABLE TO THE OWNER UPON REQUEST, AND THREE (3) COPIES OF THE APPROVED FINAL INSPECTION REPORT SHALL ACCOMPANY THE REQUEST FOR FINAL PAYMENT.
3. ALL WORK SHALL BE IN STRICT ACCORDANCE WITH THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE, OHIO BUILDING CODE, LOCAL CODES AND ORDINANCES WHERE APPLICABLE, AND REQUIREMENTS OF O.S.H.A.
4. ALL MATERIALS AND EQUIPMENT FURNISHED AND INSTALLED BY THE ELECTRICAL CONTRACTOR SHALL BE NEW, U.L. LISTED OR LABELED, AND CONFORM TO NEMA AND ANSI STANDARD WHERE APPLICABLE.
5. THE CONTRACTOR SHALL VISIT THE SITE AND FULLY FAMILIARIZE HIMSELF WITH ALL CONDITIONS WHICH AFFECT HIS WORK PRIOR TO BID. COORDINATE AND SCHEDULE WORK WITH OTHER TRADES TO ENSURE SATISFACTORY PERFORMANCE, AVOID DELAYS AND DUPLICATIONS AND MEET THE OWNER'S COMPLETION SCHEDULE FOR THE USE OF THE SITE.
6. ALL WORK SHALL BE INSTALLED BY WORKMEN FULLY SKILLED IN THE WORK TO BE PERFORMED. REPAIR OR REPLACE EXISTING EQUIPMENT OR PROPERTY OF THE OWNER DAMAGED BY ELECTRICAL TRADES WORKMEN.
7. THE ELECTRICAL CONTRACTOR SHALL GUARANTEE MATERIALS AND WORKMANSHIP PROVIDED BY HIM FOR A PERIOD OF ONE (1) YEAR FROM THE DATE OF OWNER'S FINAL ACCEPTANCE. REPAIR OR REPLACE ANY DEFECTIVE MATERIALS OR EQUIPMENT AT NO ADDITIONAL COST TO THE OWNER WITHIN THE GUARANTEE PERIOD.
8. ALL ELECTRICAL WIRING SHALL BE INSTALLED IN CONDUIT. CONDUIT SHALL BE EMT, INTERMEDIATE, OR RIGID GALVANIZED IN ACCORDANCE WITH AND AS PERMITTED BY THE NATIONAL ELECTRICAL CODE OR LOCAL/STATE CODES AS APPLICABLE. UNDERGROUND CONDUIT SHALL BE SCHEDULE 40 PVC, 1" MINIMUM.
9. FURNISH AND INSTALL PULL BOXES, JUNCTION, AND DEVICE BOXES OF SUITABLE CODE GAUGE AND SIZE. ALL TERMINATIONS IN IN-GROUND PULL BOXES SHALL BE LIQUID-TIGHT.
10. ELECTRICAL WIRES SHALL BE MINIMUM #12 AWG, COPPER, 600 V RATED. #14 AWG COPPER SHALL BE PERMISSIBLE FOR CONTROL CIRCUITRY. AMPACITY RATINGS SHALL BE BASED UPON 75°C RATINGS.
    A. #14, #12, AND #10 AWG CONDUCTORS SHALL BE "THHN/THWN".
    B. #8 AND LARGER SHALL BE STRANDED "THHN/THWN".
11. FLEXIBLE METAL CONDUIT INCLUDING LIQUIDTIGHT SHALL BE PERMITTED WHERE IN ACCORDANCE WITH NATIONAL ELECTRICAL CODE AND LOCAL CODE PROVISIONS. FLEXIBLE METAL CONDUIT SHALL CONTAIN A SEPARATE GROUNDING CONDUCTOR AND BE TERMINATED WITH APPROPRIATE FITTINGS.
12. THE DRAWINGS ARE DIAGRAMMATIC AND INTENDED TO DESCRIBE THE WORK REQUIRED. THE ELECTRICAL CONTRACTOR SHALL ACCURATELY FIELD MEASURE AND LAY OUT HIS WORK TO EFFECTIVELY ACHIEVE A STRUCTURALLY COORDINATED INSTALLATION WITH THE SITE LAYOUT AND OTHER TRADES.
13. COORDINATE ALL SERVICE ENTRANCE REQUIREMENTS WITH THE LOCAL ELECTRIC UTILITY COMPANY TO ENSURE COMPLIANCE TO UTILITY COMPANY REQUIREMENTS. PROVIDE A COMPLETE GROUNDING SYSTEM.
14. RECEPTACLES SHALL BE 20 A, 125 V AC RATED WITH WATERPROOF IN USE COVERS AND GFCI PROTECTION WHERE INSTALLED OUTDOORS OR IN VAULTS.
15. ELECTRICAL DISTRIBUTION PANEL SHALL BE SURFACE MOUNTED DEAD FRONT, WITH A 100A BUS RATING AND A 100A MAIN CIRCUIT BREAKER, NEMA 3R ENCLOSURE, WITH CODE GAUGE BACKBOX, LOCKABLE HINGED DOOR, 120/240 V, 1Ø, 3 WIRE WITH SOLID NEUTRAL AND GROUND BARS, U.L. LISTED AND CONFORMING TO NEMA STANDARDS, SUITABLE FOR USE AS SERVICE ENTRANCE EQUIPMENT. PANEL SHALL BE EQUIPPED WITH CIRCUIT BREAKERS PER PANEL SCHEDULE. CIRCUIT BREAKERS SHALL BE RATED 10,000 A.I.C. SYMMETRICAL. MULTI-POLE CIRCUIT BREAKERS SHALL BE COMMON TRIP.
16. PROVIDE TYPEWRITTEN PANELBOARD CIRCUIT DIRECTORY IN PANELBOARD DOOR IDENTIFYING ALL ACTIVE CIRCUITS AND SPARES. ACTIVE CIRCUITS SHALL DESIGNATE EQUIPMENT SERVED.
17. IDENTIFY PANELBOARDS AND USAGE OF PANELBOARD CIRCUIT BREAKERS WITH PLASTIC LAMINOID NAMEPLATES. NAMEPLATES SHALL INDICATE PANEL DESIGNATION, VOLTAGE, AND USE.
18. BALANCE ALL LOADS IN PANELBOARDS.
19. E.C. SHALL PROVIDE TEMPORARY POWER FOR THE DURATION OF CONSTRUCTION. COORDINATE TEMPORARY POWER REQUIREMENTS WITH THE UTILITY COMPANY.

BID SET

your trusted advisor
consultants
engineers
architects
planners

NO	REVISION	DATE

ISSUED FOR:	10/1/2025
ISSUE DATE:	AS SHOWN
SCALE:	ELE
DESIGNED BY:	ELE
DRAWN BY:	NSS
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FULTON COUNTY LYONS, OHIO

ELECTRICAL - E SERIES

ELECTRICAL LEGENDS & SYMBOLOGY

PROJECT NO.
220792

DISCIPLINE
ELECTRICAL

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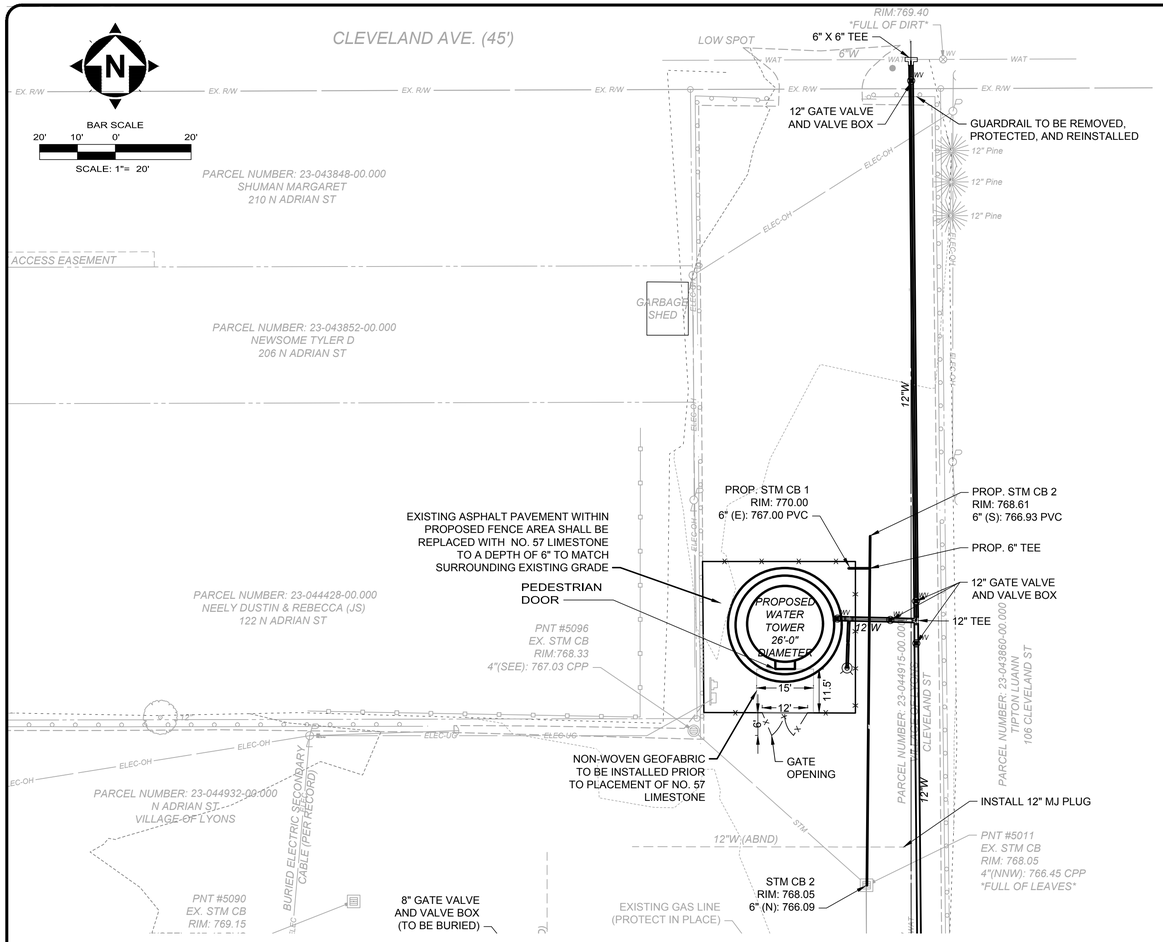
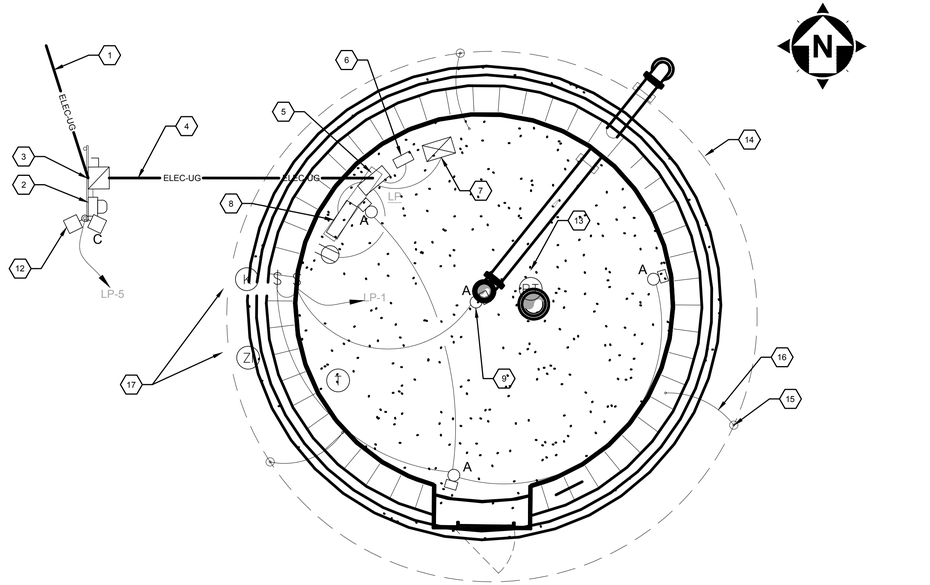
SHEET 15 OF 21

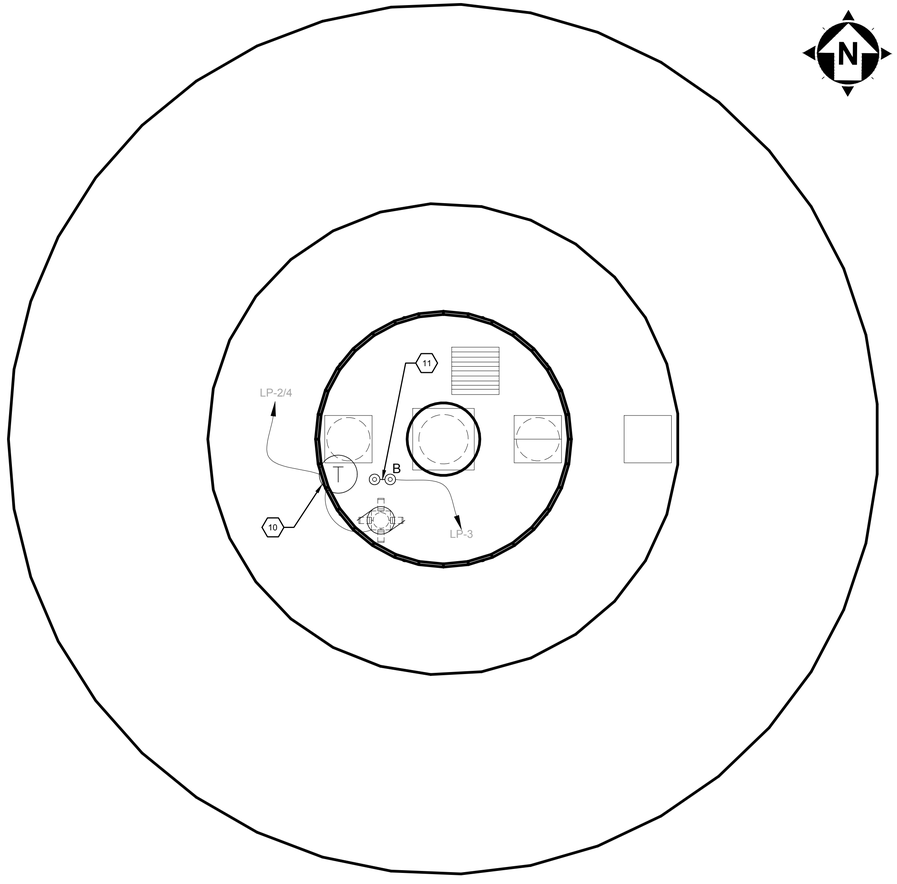


ELECTRICAL SITE PLAN

SCALE: 1" = 20'-0"



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



ROOF PLAN

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

CODED NOTES:

1. NEW UG 120/240V, 1Ø. 3W SERVICE FROM POLE MOUNTED TRANSFORMER TO NEW SERVICE RACK PER DETAIL. COORDINATE TRANSFORMER INSTALLATION AND POLE LOCATION WITH THE UTILITY. EXTEND THE SERVICE IN CONDUIT 20' UP THE POLE AND PROVIDE WEATHERHEAD. FINAL CONNECTIONS BY UTILITY. SEE CIVIL SITE PLAN FOR THE RECOMMENDED TRANSFORMER POLE LOCATION. PROVIDE ADDITIONAL 2" SPARE CONDUIT FROM THE POLE FOR FUTURE DATA SERVICE TO THE SITE.
2. NEW METER AND METER SOCKET PER UTILITY COMPANY REQUIREMENTS. BOND TO THE GROUND ELECTRODE SYSTEM.
3. 100A-2P FUSIBLE SERVICE ENTRANCE RATED DISCONNECT SWITCH WITH SOLID NEUTRAL AND NEMA 3R ENCLOSURE.
4. NEW DUCTBANK FROM THE ELECTRICAL SERVICE RACK TO THE BUILDING INTERIOR. (4) 1-1/2" CONDUITS (1 SPARE).
5. NEW DISTRIBUTION PANEL "LP".
6. TELEMETRY PANEL RELOCATED FROM EXISTING WATER TOWER, INSTALLED BY THE CONTRACTOR.
7. TANK MIXER CONTROL PANEL, FURNISHED WITH THE MIXER. INTERFACE TO TELEMETRY RTU FOR MONITORING AND CONTROL.
8. CATHODIC PROTECTION PANEL. INSTALL AND CONNECT TO THE TANK AND PIPING PER MANUFACTURER'S INSTRUCTIONS.
9. INSTALL (6) TYPE A LIGHTS VERTICALLY SPACED AT 15' O.C. FOR ILLUMINATION OF THE ROOF ACCESS LADDER, CONNECT THROUGH A COMMON TOGGLE SWITCH. PROVIDE LABEL FOR THE SWITCH.
10. NEW NEMA 3R JUNCTION BOX FOR TANK MIXER CABLE. ROUTE 3/4" RGS CONDUIT WITH (2) #12 & (1) #12 GND ALONG THE TANK WALL AND ROOF TO THE JUNCTION BOX. PENETRATE SIDE OF TANK HATCH, INSTALL CONDUIT ELBOW, CONDUIT SEAL-OFF FITTING AND CORD STRAIN RELIEF, PER MIXER SUPPLIER INSTRUCTIONS.
11. FAA OBSTRUCTION LIGHT. PROVIDE A DEDICATED CIRCUIT AND WIRE VIA CONTROLLER TO LIGHTING PANEL.
12. PROVIDE A 12' STANCHION MOUNTED AREA LIGHT WITH ADJUSTABLE DUAL HEADS AND MOTION DETECTOR FOR CONTROL (RAB STL360 OR EQUAL). AIM HEADS AT TANK ENTRANCE AND HYDRANT. LOCATE MOTION DETECTOR ABOVE FENCE LINE, AND ADJUST FOR OPTIMAL OPERATION.
13. PRESSURE TRANSDUCER FOR TANK LEVEL MEASUREMENT.
14. #2 BARE COPPER GROUND RING 1'6" BELOW GRADE.
15. (3) EQUALLY SPACED 3/4" 10' COPPER GLAD GROUND RODS, DRIVEN TO AT LEAST 1' BELOW GRADE. EXOTHERMICALLY WELDED TO THE GROUND RING
16. EXTEND #2 CONDUCTOR FROM THE RING TO TANK STEEL AND CADWELD. BOND GROUND THROUGH THE GROUND PLATE INSTALLED BELOW PANEL LP TO THE ELECTRICAL SERVICE. COORDINATE CONNECTION POINTS WITH THE TANK SUPPLIER.
17. REFER TO THE INSTRUMENT LIST IN SPECIFICATION SECTION 269001 FOR THE INSTRUMENTATION TO BE PROVIDED BY THE SYSTEM INTEGRATOR AND INSTALLED BY THIS CONTRACTOR. INCLUDE IN BID THE PRICE TO INSTALL AND WIRE INSTRUMENTS TO THE RTU PER PROVISIONS OF THAT SECTION. THE INSTRUMENTS INCLUDE:
   - THE GAUGE PRESSURE TRANSMITTER
   - DOOR CONTACTOR
   - SECURITY KEYPAD
   - AMBIENT TEMPERATURE TRANSMITTER

SHEET GENERAL NOTE:

1. COORDINATE ALL CONDUIT, BOXES, AND EQUIPMENT MOUNTING LOCATIONS ON THE TANK INTERIOR WITH THE TANK MANUFACTURER.

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ISSUE DATE: 11/19/2025
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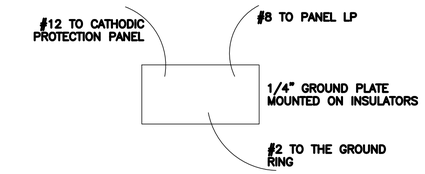
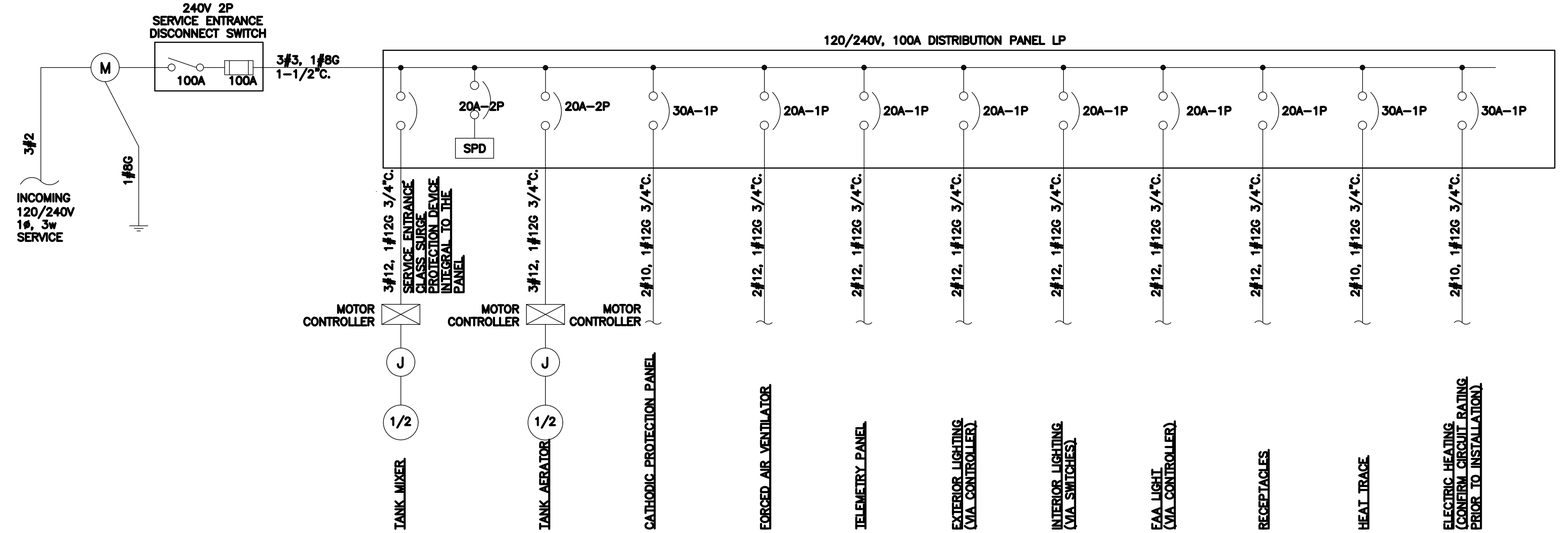
DESIGNED BY: ELE
DRAWN BY: ELE
CHECKED BY: NSS

VILLAGE OF LYONS
VILLAGE OF LYONS
WATER TOWER PROJECT
FULTON COUNTY LYONS, OHIO
ELECTRICAL - E SERIES
WATER TOWER PLANS

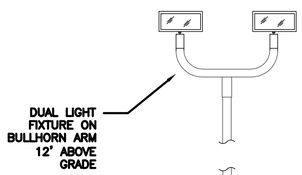
PROJECT NO. 220792
DISCIPLINE ELECTRICAL
SHEET NAME E-02
SHEET 16 OF 21

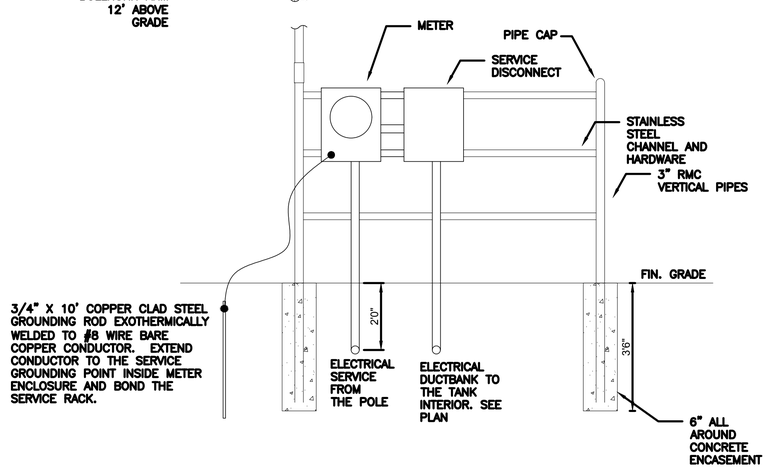


GROUND PLATE DIAGRAM
N.T.S.



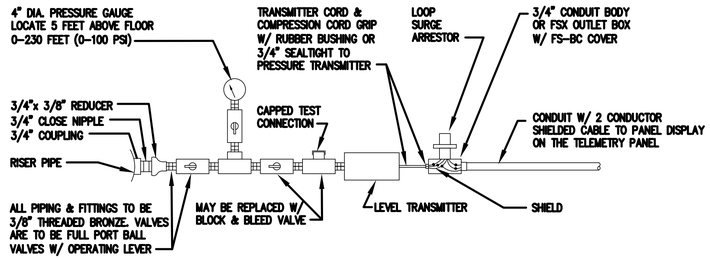
SINGLE LINE DIAGRAM
N.T.S.





SERVICE RACK DETAIL
N.T.S.

LIGHT FIXTURE SCHEDULE			
DESIGNATION	DESCRIPTION	MANUFACTURER/MODEL	NOTES
A	WALL MOUNTED LED LIGHT, CAST ALUMINUM HOUSING	LITHONIA OLVTWM OR EQUAL	3500K COLOR, 600 LUMENS
B	FAA OBSTRUCTION LIGHT	TBD	
C	LED FLOOD FLIGHT - TWO HEADS ON COMMON BULLHORN ARM	HOLOPHANE PSLED-PK1-MVOLT-FL-40K-1 WITH FULL VISOR	PROVIDE EACH WITH VISOR



PRESSURE GAUGE AND LEVEL TRANSMITTER DIAGRAM
N.T.S.

INSTRUMENTATION AND CONTROL NOTES:

1. PROVIDE PHYSICAL SUPPORT TO TRANSMITTER AND PIPING AS REQ'D TO MINIMIZE STRAIN ON RISER CONNECTION.
2. HEAT TAPE/INSULATE SENSING LINES
3. COORDINATE INSTALLATION WITH THE SYSTEM INTEGRATOR.
4. SYSTEM INTEGRATOR TO PROVIDE A TELEMETRY PANEL WITH LEVEL DISPLAY.
5. SYSTEM INTEGRATOR TO CONFIGURE INTERFACE TO THE REMOTE SYSTEM MONITORING LOCATION.

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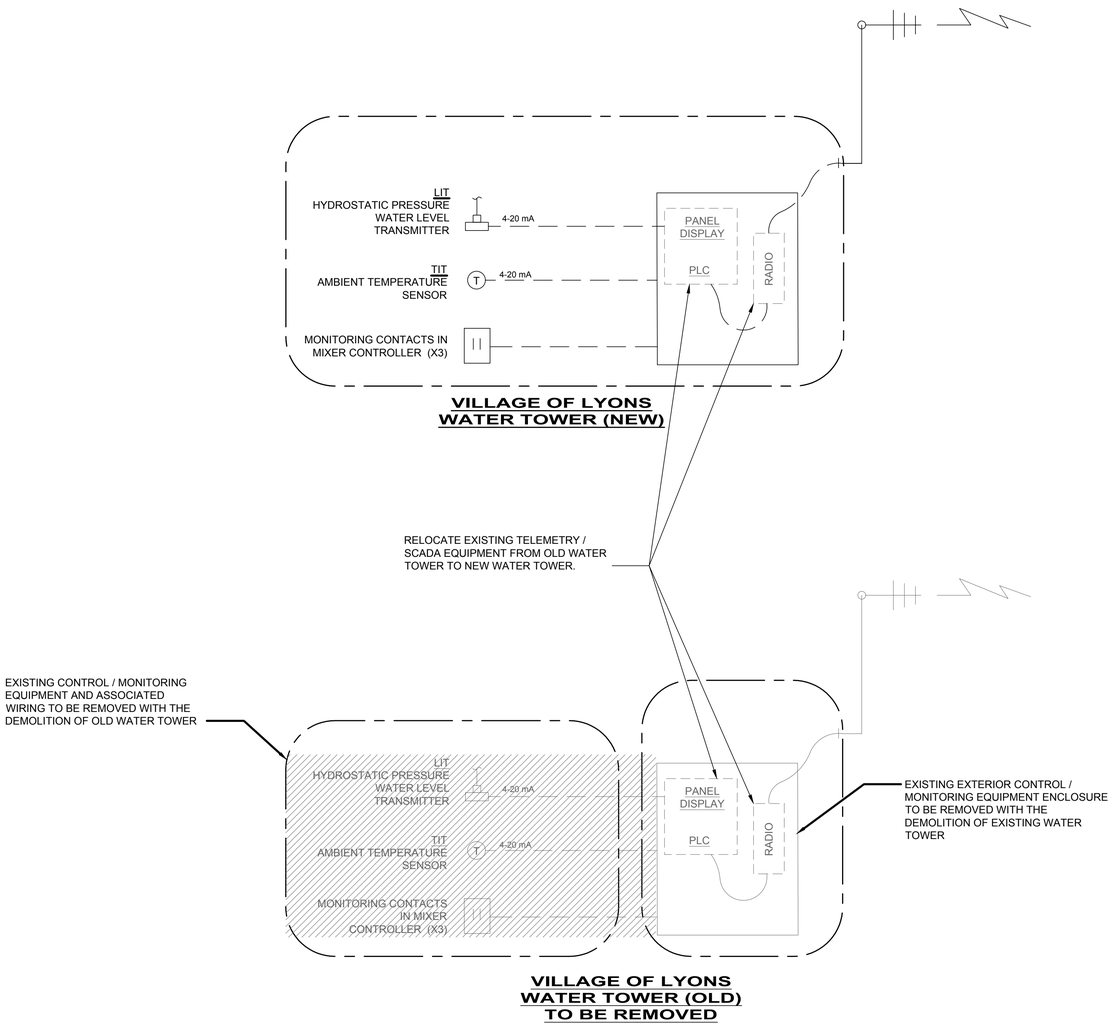
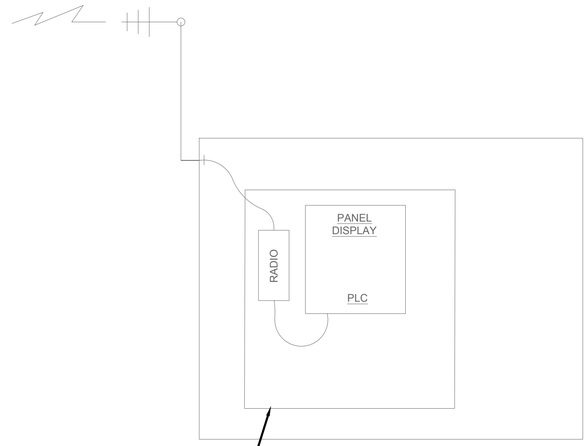
VILLAGE OF LYONS
VILLAGE OF LYONS WATER TOWER PROJECT
FULTON COUNTY LYONS, OHIO
ELECTRICAL - E SERIES
SINGLELINE & DETAILS

PROJECT NO. 220792
DISCIPLINE ELECTRICAL
SHEET NAME E-03
SHEET 17 OF 21





GENERAL NOTES:

1. GENERAL CONTRACTOR SHALL RELOCATE EXISTING TELEMETRY EQUIPMENT FROM EXISTING WATER TOWER TO PROPOSED WATER TOWER AS REQUIRED FOR COMPLETE AND OPERATIONAL SYSTEM.

2. CONTRACTOR TO VERIFY FIELD CONDITIONS AT THE TWO EXISTING SITES (EXISTING WATER TOWER, AND PUMP STATION)

SCADA / TELEMETRY ARCHITECTURE DIAGRAM

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VILLAGE OF LYONS
VILLAGE OF LYONS
WATER TOWER PROJECT
FULTON COUNTY LYONS, OHIO

I & C Y-SERIES

TELEMETRY NETWORK DIAGRAM

PROJECT NO.
220792

DISCIPLINE
I & C

SHEET NAME
Y-01

SHEET 18 OF 21

ADMINISTRATIVE NOTES

1. AN OHIO EPA NPDES PERMIT IS REQUIRED WHERE CONSTRUCTION ACTIVITIES DISTURB 1 OR MORE ACRES OF LAND, OR SMALLER SITES LESS THAN 1 ACRE THAT ARE PART OF A LARGER COMMON DEVELOPMENT. DISTURBED LAND IS LAND IN WHICH VEGETATION HAS BEEN CLEARED AND SOILS ARE EXPOSED TO STORM WATER. A NOI IS REQUIRED FOR THIS PROJECT AND MUST BE FILED WITH THE OHIO EPA AT LEAST 21 DAYS PRIOR TO THE START OF CONSTRUCTION BECAUSE THE TOTAL LAND DISTURBANCE IS GREATER THAN 1 ACRE. THE LIMIT OF EARTH DISTURBANCE FOR THIS PROJECT IS APPROXIMATELY 2.11 ACRES.
2. THE CONTRACTOR SHALL FOLLOW THE PRACTICES AND REQUIREMENTS PROVIDED IN THE OHIO EPA NPDES CONSTRUCTION SITE STORM WATER GENERAL PERMIT OHC000004 AND THE ODNR RAINWATER AND LAND DEVELOPMENT MANUAL, AND BE RESPONSIBLE FOR ALL NPDES TERMS AND CONDITIONS UNTIL A NOT IS FILED.
3. NO CONSTRUCTION ACTIVITIES MAY BEGIN UNTIL ALL OF THE FOLLOWING OCCUR:
   - OHIO EPA NPDES AUTHORIZATION LETTER RECEIVED
   - THE CONTRACTOR FILES A CO-PERMITTEE APPLICATION TO THE OHIO EPA
   - THE CONTRACTOR ATTENDS A PRE-CONSTRUCTION MEETING WITH THE SWCD TO DISCUSS OHIO EPA NPDES PERMIT REQUIREMENTS
4. ELECTRONIC VERSIONS OF OHIO EPA FORMS INCLUDING NOI, NOT, CO-PERMITTEE NOI/NOT, INDIVIDUAL LOT NOI/NOT AND TRANSFER ARE AVAILABLE THROUGH THE OHIO EPA AND CAN BE SUBMITTED ELECTRONICALLY. VISIT THE OHIO EPA ELECTRONIC BUSINESS SERVICES WEBSITE AT WWW.EPA.OHIO.GOV/DSW/STORM/INDEX FOR MORE INFORMATION AND GUIDANCE.
5. THE CONTRACTOR SHALL SELECT INDIVIDUALS TO BE RESPONSIBLE FOR INSPECTIONS, MAINTENANCE AND REPAIR ACTIVITIES, AND COMPLETING INSPECTION AND MAINTENANCE REPORTS. THE CONTRACTOR SHALL COMPLETE A "DELEGATION OF AUTHORITY FOR STORM WATER POLLUTION PREVENTION PLAN" AND PROVIDE A COPY TO THE OWNER AND SWCD.
6. ALL PROCEDURES AND REQUIREMENTS CONTAINED IN THIS SWP3 APPLY TO ALL GENERAL AND SUBCONTRACTORS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO IMPLEMENT, INFORM, REQUIRE AND ENFORCE ALL ASPECTS AND PROCEDURES OF THE SWP3. THE CONTRACTOR SHALL HAVE ALL SUBCONTRACTORS THAT ARE OR MAY BE ENGAGED IN ACTIVITIES THAT COULD IMPACT STORM WATER COMPLETE A "SUBCONTRACTOR AGREEMENT FOR EROSION AND SEDIMENT CONTROL", AND PROVIDE A COPY TO THE OWNER AND SWCD.
7. THE CONTRACTOR SHALL KEEP ON-SITE COPIES OF THE NOI, NPDES, SWP3 AND INSPECTION LOGS/REPORTS.
8. ALL EROSION AND SEDIMENT CONTROL WORK SHALL BE SUBJECT TO INSPECTION BY THE SWCD AND OHIO EPA.

GENERAL NOTES

1. THIS SWP3 HAS BEEN PREPARED SHOWING THE ITEMS LISTED BELOW, BUT THE CONTRACTOR MAY NEED TO MOVE OR ADD ITEMS AS CONSTRUCTION PROGRESSES OR DURING THE VARIOUS STAGES OF CONSTRUCTION. _ _ _ _ OR _ _ _ _ THE CONTRACTOR IS REQUIRED TO DEVELOP THE SWP3 FOR THIS PROJECT AND SUBMIT FOR APPROVAL TO THE SWCD SHOWING THE ITEMS LISTED BELOW. SOME ITEMS MAY ALREADY BE SHOWN ON THE SWP3, BUT MOVED TO BETTER SUIT THE CONTRACTOR'S MEANS AND METHODS.
   - LIMITS OF EARTH DISTURBING ACTIVITY
   - CONSTRUCTION ENTRANCE(S)
   - EROSION AND SEDIMENT CONTROL MEASURES
   - INLET PROTECTIONS
   - CONCRETE WASHOUT PIT(S)
   - EQUIPMENT STAGING
   - FUEL STORAGE AND VEHICLE FUELING AREA
   - CONSTRUCTION TRAILER(S)
   - SANITATION FACILITY
   - MATERIAL STOCKPILE LOCATION(S)
   - CHEMICAL COMPOUND MIXING AND STORAGE AREA
   - ANY OTHER EROSION CONTROL REQUIRED
2. ALL WORK REQUIRED TO IMPLEMENT THE SWP3 INCLUDING INSPECTION FEES, MAINTENANCE AND REPAIRS SHALL BE DONE BY AND AT THE EXPENSE OF THE CONTRACTOR.
3. THE CONTRACTOR SHALL AMEND THE SWP3 WHEN THERE IS A CHANGE IN DESIGN, CONSTRUCTION, OPERATION OR MAINTENANCE THAT REQUIRES INSTALLATION OF BMPS OR MODIFICATION TO EXISTING BMPS.
4. ADDITIONAL OR DIFFERENT BMPS MAY BE NEEDED AS CONSTRUCTION PROGRESSES OR AS REQUIRED BY THE OWNER, SWCD OR OHIO EPA.
5. PHASE CONSTRUCTION ACTIVITIES TO MINIMIZE LAND DISTURBED AT ANY ONE TIME AND LEAVE EXISTING VEGETATION IN PLACE AS LONG AS POSSIBLE.

OTHER WASTE CONTROL NOTES

1. SOIL STOCKPILES SHALL BE RINGED WITH SILT FENCE ALONG THE BOTTOM FOOTPRINT. IF THE STOCKPILE WILL BE INACTIVE FOR 14 DAYS OR MORE, THE SURFACE SHALL BE SEEDED OR STABILIZED WITHIN 7 DAYS OF LAST DISTURBANCE.
2. CONCRETE TRUCKS ARE NOT PERMITTED TO WASH OUT OR DISCHARGE SURPLUS CONCRETE OR DRUM WASH WATER ONTO THE GROUND OR INTO STORM INLETS, DITCHES, STREAMS, WETLANDS OR ANY OTHER SURFACE WATERS. ALL EXCESS CONCRETE AND CONCRETE WASHOUT, INCLUDING FROM HAND MIXERS AND LIGHT EQUIPMENT, MUST BE DISPOSED OF IN A CONCRETE WASHOUT AREA TO COLLECT AND HARDEN.
3. OFF-SITE TRACKING OF SEDIMENT BY CONSTRUCTION VEHICLES MUST BE MINIMIZED. THE CONTRACTOR SHALL SWEEP ALL ADJACENT ROADS TO REMOVE MUD, DIRT OR ROCK TRACKED FROM THE SITE AT THE END OF EACH WORK DAY OR AS REQUIRED DURING THE DAY. DUMP TRUCKS HAULING MATERIAL FROM THE SITE SHALL BE COVERED WITH A TARPAULIN.
4. IT IS PROHIBITED TO BURN, BURY OR POUR ONTO THE GROUND OR INTO STORM INLETS, DITCHES, STREAMS, WETLANDS OR ANY OTHER SURFACE WATERS SOLID OR LIQUID WASTE INCLUDING TRASH, CONSTRUCTION DEBRIS, SOLVENTS, PAINT, DIESEL FUEL, GASOLINE, MOTOR OIL, HYDRAULIC FLUID, CEMENT CURING COMPOUND, ANTIFREEZE OR OTHER TOXIC OR HAZARDOUS WASTE. WASTE MATERIALS SHALL BE COLLECTED IN A SECURELY LIDDED DUMPSTER, DISPOSED OF IN AN APPROVED LANDFILL AND EMPTIED AS NECESSARY.
5. FUEL TANKS, DRUMS AND OTHER CONTAINERS HOLDING CHEMICALS MUST BE STORED WITHIN A DIKED AREA WITH A VOLUME OF AT LEAST 110% OF THE LARGEST TANK. A DIKED AREA IS NOT NECESSARY IF A SELF-CONTAINED SPILL PROOF TANK IS USED.
6. THE CONTRACTOR SHALL PROVIDE TEMPORARY SANITARY FACILITIES AT THE SITE. SANITARY WASTE SHALL BE COLLECTED FROM THE PORTABLE UNITS 1 TIME PER WEEK, OR MORE OFTEN IF NECESSARY.
7. ANY TOXIC OR HAZARDOUS MATERIAL SPILL, REGARDLESS OF SIZE, MUST BE REPORTED WITHIN 30 MINUTES TO THE LOCAL FIRE DEPARTMENT AND OHIO EPA.
8. CONTAMINATED SOIL, SOIL WHERE CONSTRUCTION CHEMICALS HAVE BEEN SPILLED OR HAZARDOUS WASTE MATERIALS MUST BE REMOVED FROM THE SITE AND DISPOSED OF IN ACCORDANCE WITH FEDERAL, STATE AND LOCAL REGULATIONS.
9. STORM WATER THAT COMES IN CONTACT WITH CONTAMINATED SOIL OR HAS A VISIBLE SHEEN MUST BE COLLECTED BY A VACUUM TRUCK AND DISPOSED OF AS A WASTE WATER.

EROSION CONTROL NOTES

1. SPECIAL MEASURES SHALL BE TAKEN TO STABILIZE DRAINAGE CHANNELS AND STORM WATER OUTFALLS.
2. DIVERT SURFACE RUNOFF AWAY FROM DISTURBED AREAS AND STEEP SLOPES WHEREVER PRACTICABLE.
3. STABILIZATION OF DISTURBED AREAS SHALL BE INITIATED WITHIN THE TIME FRAMES IN THE FOLLOWING TABLES:

AREA REQUIRING TEMPORARY STABILIZATION	TIME FRAME TO APPLY CONTROLS
AREA WITHIN 50 FEET OF A SURFACE WATER, NOT AT FINAL GRADE AND TO REMAIN IDLE MORE THAN 14 DAYS	WITHIN 2 DAYS OF MOST RECENT DISTURBANCE
ANY OTHER AREA TO BE DORMANT MORE THAN 14 DAYS, BUT LESS THAN 1 YEAR	WITHIN 7 DAYS OF MOST RECENT DISTURBANCE
AREA TO REMAIN IDLE OVER WINTER	PRIOR TO ONSET OF WINTER WEATHER
AREA TO BE PAVED	STABILIZE WITH STONE SUBBASE UNTIL PAVED

AREA REQUIRING PERMANENT STABILIZATION	TIME FRAME TO APPLY CONTROLS
AREA TO BE DORMANT FOR 1 YEAR OR MORE	WITHIN 7 DAYS OF MOST RECENT DISTURBANCE
AREA WITHIN 50 FEET OF A SURFACE WATER AND AT FINAL GRADE	WITHIN 2 DAYS OF REACHING FINAL GRADE
ANY OTHER AREA AT FINAL GRADE	WITHIN 7 DAYS OF REACHING FINAL GRADE

SEDIMENT CONTROL NOTES

1. INLET PROTECTION AND SEDIMENT BARRIERS MUST BE INSTALLED PRIOR TO CLEARING AND GRUBBING.
2. PERIMETER SEDIMENT BARRIERS SHALL BE INSTALLED AS THE FIRST STEP OF GRADING AND WITHIN 7 DAYS FROM THE START OF CLEARING AND GRUBBING.
3. SEDIMENT PONDS, TEMPORARILY MODIFIED PERMANENT PONDS AND PERIMETER SEDIMENT BARRIERS MUST BE INSTALLED AS THE FIRST STEP OF GRADING AND WITHIN 7 DAYS FROM THE START OF CLEARING AND GRUBBING, AND CONTINUE TO FUNCTION UNTIL ALL DISTURBED UPLAND AREAS ARE STABILIZED.
4. SEDIMENT CONTROLS MUST POND RUNOFF TO BE CONSIDERED FUNCTIONAL.
5. SEDIMENT-LADEN TRENCH OR GROUND WATER MUST PASS THROUGH A SEDIMENT-SETTLING POND OR BE DEWATERED IN-PLACE USING A SUMP PIT, FILTER BAG OR OTHER COMPARABLE METHOD, PRIOR TO DISCHARGE FROM THE SITE.
6. TRENCH AND GROUND WATER FREE FROM SEDIMENT OR OTHER POLLUTANTS MAY BE DISCHARGED WITHOUT TREATMENT, PROVIDED THIS WATER DOES NOT BECOME POLLUTANT-LADEN BY TRAVERSING OVER DISTURBED SOILS OR OTHER POLLUTANT SOURCES.
7. SETTLED MATERIAL SHALL BE DISPOSED OF IN A STABILIZED LOCATION WHERE IT WILL NOT BE CARRIED OFF-SITE OR INTO A STORM SEWER BY RAINFALL.

EROSION CONTROL TIMETABLE

	2018					2019										
	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D
STABILIZATION	⊗	O	O					O	O	⊗	⊗	⊗	⊗	O	O		
TEMP. SEEDING	⊗	O	O						O	⊗	⊗	⊗	⊗	O	O		
PERM. SEEDING	⊗	⊗	⊗					⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗		
SODDING	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
MULCHING	O	O	O	O						O	O	O	O	O	O	O	O
PAVING																	

⊗ IRRIGATION NEEDED

TMDLS AND BMPS SELECTED

1. APPLICABLE TMDLS FOR THE SITE:
   (X) PHOSPHORUS ( ) AMMONIA (X) HABITAT
   (X) NITROGEN (X) BACTERIA ( ) FLOW
   ( ) SEDIMENT/TOTAL SUSPEND SOLIDS
   (X) DISSOLVED OXYGEN/ORGANIC ENRICHMENT
2. THE FOLLOWING BMPS ARE SELECTED TO ADDRESS APPLICABLE TMDLS FOR THE PROJECT:

   CONSTRUCTION SITE:
   ( ) DEMARCATE PROTECTED AREA BEFORE CONSTRUCTION
   (X) MAINTAIN PORTABLE TOILET AND EMPTY W/OUT SPILL
   (X) PROPER STORAGE OF LANDSCAPE FERTILIZER
   (X) MS4 MONTHLY INSPECTIONS DURING CONSTRUCTION
   (X) RESOLVE NON-COMPLIANCE SWP3 INSPECTION ITEMS
   ( ) FINAL INSPECTION TO ENSURE BMP IMPLEMENTATION

   TEMPORARY EROSION CONTROL:
   ( ) CHECK DAMS ( ) TEMPORARY DIVERSION
   ( ) SLOPE DRAIN ( ) STREAM UTILITY CROSSING
   ( ) DEWATERING ( ) STREAM CROSSING

   TEMPORARY SEDIMENT CONTROL:
   ( ) SEDIMENT BASIN ( ) SEDIMENT TRAP
   (X) SILT FENCE (X) INLET PROTECTION
   (X) FILTER SOCK ( ) FILTER BERM

   SOIL STABILIZATION:
   (X) DUST CONTROL (X) PHASED DISTURBANCE
   (X) MULCHING (X) CLEARING AND GRUBBING
   ( ) SODDING (X) TEMPORARY SEEDING
   (X) TOPSOILING (X) PERMANENT SEEDING
   ( ) GRADE TREATMENT (X) CONSTRUCTION ENTRANCE
   ( ) TEMPORARY ROLLED EROSION CONTROL PRODUCTS
   ( ) TURF REINFORCEMENT MATTING
   (X) TREE AND NATURAL AREA PRESERVATION

   PERMANENT EROSION CONTROL:
   ( ) GRASSED SWALE ( ) ROCK LINED CHANNEL
   ( ) LEVEL SPREADER ( ) ROCK OUTLET PROTECTION
   ( ) DIVERSION ( ) SUBSURFACE DRAIN

   POLLUTION PREVENTION AND GOOD HOUSEKEEPING:
   (X) ROUTINE FACILITY INSPECTIONS
   (X) VISUAL ASSESSMENT OF STORM WATER DISCHARGE
   ( ) ANNUAL COMPREHENSIVE SITE INSPECTION
   ( ) SWEEP PARKING LOT AND DRIVE LANES
   (X) CLEAN CATCH BASINS
   (X) STORE WASTE IN LIDDED CONTAINERS
   (X) LOCATE SNOW DISPOSAL AREAS AWAY FROM BMPS
   ( ) ESTABLISH "PICK-UP PET WASTE" STATION

   POST-CONSTRUCTION:
   ( ) WETLAND SETBACK ( ) STREAM SETBACK
   ( ) WATER QUALITY POND ( ) PERMEABLE PAVEMENT
   ( ) GRASS FILTER STRIP ( ) INFILTRATION TRENCH
   ( ) TREE BOX FILTER ( ) SAND FILTER
   ( ) GREEN ROOF ( ) LTMA
   ( ) BIORETENTION AREA ( ) CISTERN
   ( ) BIORETENTION WITH INTERNAL WATER STORAGE
   ( ) OPEN CHANNEL SWALES
   ( ) WET EXTENDED DETENTION BASIN
   ( ) DRY EXTENDED DETENTION BASIN WITH FOREBAY
   ( ) RETROFIT SWMF TO TREAT WQV
   ( ) RETROFIT SWMF TO INCREASE INFILTRATION
   ( ) RETROFIT SWMF POND TO FUNCTION AS WETLAND
   ( ) AS-BUILT POST-BMPS
   ( ) SUBMIT LTMA ANNUAL MAINTENANCE REPORT TO MS4
   (X) REDUCE IMPERVIOUS SURFACES
   ( ) DECREASE QUANTITY OF PARKING SPACES
   ( ) LOW IMPACT DEVELOPMENT
   ( ) CONSERVATION DEVELOPMENT
   ( ) DISCONNECT DOWNSPOUT AND REDIRECT TO BMP
   ( ) VEGETATE MAINTENANCE/STORAGE YARD OPEN AREAS
   (X) IMPLEMENT LOW-MOW OR NO-MOW PRACTICES
   ( ) PEST MANAGEMENT PROGRAM

PERMIT CLOSURE REQUIREMENTS

1. FINAL STABILIZATION REQUIRES THE CONTRACTOR TO REMOVE ALL TEMPORARY SEDIMENT AND EROSION CONTROLS FROM THE SITE AND ALL SEDIMENT TRAPPED BY THOSE CONTROLS BE PERMANENTLY STABILIZED.
2. THE CONTRACTOR SHALL COMPLETE A "FINAL CERTIFICATION AND NOTIFICATION FOR EROSION AND SEDIMENT CONTROL" UPON PROJECT COMPLETION AND PROVIDE A COPY TO THE OWNER AND SWCD.
3. ONCE CONSTRUCTION ACTIVITIES HAVE CEASED AND THE SITE REACHES FINAL STABILIZATION, THE CONTRACTOR MUST TERMINATE THE NPDES PERMIT COVERAGE BY FILING A NOT WITH THE OHIO EPA WITHIN 45 DAYS OF FINAL STABILIZATION. FINAL STABILIZATION IS DEFINED AS AN ESTABLISHED VEGETATIVE GROUND COVER OF AT LEAST 70% GROWTH DENSITY, OR OTHER MEANS OF PERMANENT STABILIZATION, OVER ALL AREAS DISTURBED DURING CONSTRUCTION.
4. THE CONTRACTOR MUST MAINTAIN ALL REPORTS FOR 3 YEARS AFTER THE NOT IS FILED, AND PROVIDE DIGITAL COPIES TO THE OWNER AND SWCD.

MAINTENANCE REQUIREMENTS

1. BMPS SHALL BE MAINTAINED IN GOOD WORKING ORDER UNTIL UPSLOPE AREAS THEY CONTROL ARE STABILIZED.
2. THE CONTRACTOR SHALL PROVIDE A QUALIFIED PERSON KNOWLEDGEABLE IN THE PRINCIPLES AND PRACTICES OF EROSION AND SEDIMENT CONTROLS, POSSESS THE TECHNICAL SKILLS TO ASSESS SITE CONDITIONS THAT COULD IMPACT STORM WATER QUALITY, AND CAN ASSESS THE EFFECTIVENESS OF ANY BMP SELECTED.
3. A QUALIFIED PERSON MUST INSPECT BMPS AT LEAST ONCE EVERY 7 DAYS AND WITHIN 24 HOURS OF A 0.5" OR GREATER RAINFALL IN A 24-HOUR PERIOD TO DETERMINE IF THE SWP3 WAS PROPERLY IMPLEMENTED.
4. THE QUALIFIED PERSON MUST PREPARE A WRITTEN REPORT AFTER EACH INSPECTION SUMMARIZING INSPECTION RESULTS INCLUDING THE FOLLOWING:
   - DATE OF INSPECTION
   - NAME AND QUALIFICATION OF THE INSPECTOR
   - WEATHER CONDITIONS
   - LOCATIONS WHERE IN-STREAM OR OFF-SITE SEDIMENTATION OR OTHER POLLUTANTS WERE OBSERVED.
   - LOCATIONS OF BMPS NEEDING MAINTENANCE.
   - LOCATIONS OF BMPS FAILING TO OPERATE CORRECTLY OR PROVIDE ADEQUATE PROTECTION.
   - LOCATION OF AREAS IN NEED OF ADDITIONAL BMPS NOT IN PLACE AT THE TIME OF INSPECTION.
   - CORRECTIVE ACTIONS REQUIRED, CHANGES TO THE SWP3 AND IMPLEMENTATION DATES.
   - GRADING AND STABILIZATION ACTIVITY LOG
   - EROSION AND SEDIMENT CONTROL AMENDMENT LOG
5. ALL INCIDENCES OF NON-COMPLIANCE MUST BE IDENTIFIED IN THE REPORT. IF A REPORT DOES NOT IDENTIFY INCIDENCES OF NON-COMPLIANCE, IT MUST CONTAIN A CERTIFICATION THE SITE IS IN COMPLIANCE AT THE TIME OF INSPECTION.
6. BMP MAINTENANCE OR REPAIR MUST BE COMPLETED WITHIN 3 DAYS, AND SEDIMENT POND MAINTENANCE OR REPAIR WITHIN 10 DAYS, OF THE INSPECTION THAT REVEALED A DEFICIENCY.
7. WHEN AN INSPECTION REVEALS A BMP IS NOT EFFECTIVE AND A MORE APPROPRIATE BMP IS REQUIRED, THE SWP3 SHALL BE AMENDED, THE NEW BMP INSTALLED WITHIN 10 DAYS OF THE INSPECTION THAT REVEALED THE DEFICIENCY, AND THE "STORM WATER POLLUTION PREVENTION PLAN AMENDMENT LOG" FORM COMPLETED.
8. WHEN AN INSPECTION REVEALS A BMP HAS NOT BEEN INSTALLED, BUT IS REQUIRED TO PROVIDE ADEQUATE CONTROL, IT MUST BE INSTALLED PRIOR TO THE NEXT STORM EVENT WHICH PRODUCES RUNOFF, BUT IN NO CASE LATER THAN 10 DAYS FROM THE INSPECTION THAT REVEALED THE DEFICIENCY.
9. THE INSPECTION FREQUENCY MAY BE REDUCED TO 1 TIME PER MONTH IF THE ENTIRE SITE IS TEMPORARILY STABILIZED OR RUNOFF IS UNLIKELY DUE TO WINTER WEATHER (I.E. SUSTAINED SNOW COVER OR FROZEN GROUND CONDITIONS). A WAIVER OF INSPECTION REQUIREMENTS IS AVAILABLE UNTIL 1 MONTH BEFORE THAWING CONDITIONS ARE EXPECTED IF ALL THE FOLLOWING CONDITIONS ARE MET:
10. FROZEN CONDITIONS ARE ANTICIPATED TO CONTINUE FOR EXTENDED PERIODS OF TIME (I.E. MORE THAN 1 MONTH).
11. SOIL DISTURBANCE ACTIVITIES HAVE BEEN SUSPENDED.
12. THE BEGINNING AND ENDING DATES OF THE WAIVER PERIOD ARE DOCUMENTED IN THE SWP3.
13. ONCE A DEFINABLE AREA HAS BEEN FULLY STABILIZED, IT MAY BE MARKED ON THE SWP3 AND NO FURTHER INSPECTION REQUIREMENTS ARE REQUIRED FOR THAT AREA OF THE SITE.
14. INSPECTIONS SHALL BE PERFORMED UNTIL A NOT IS FILED WITH THE OHIO EPA.

SEQUENCE OF MAJOR CONSTRUCTION ACTIVITIES

1. HOLD A PRE-CONSTRUCTION MEETING TO DISCUSS OHIO EPA NPDES PERMIT REQUIREMENTS.
2. CONTRACTOR SUBMITS CONSTRUCTION SCHEDULE FOR CONSTRUCTION ACTIVITIES.
3. BEGIN INSPECTION, MAINTENANCE, RECORD KEEPING AND SITE POSTING OF BMPS.
4. ESTABLISH STAGING AREA AND NON-SEDIMENT BMPS.
5. INSTALL SILT FENCE, INLET PROTECTION AND CONSTRUCTION ENTRANCE.
6. INSTALL OTHER TEMPORARY EROSION AND SEDIMENT CONTROL ITEMS AS SOON AS POSSIBLE, BUT NO LATER THAN 7 DAYS AFTER FIRST SOIL DISTURBANCE. INSPECT AND MAINTAIN BMPS FOR THE PROJECT DURATION UNTIL UPSLOPE AREAS ARE PERMANENTLY STABILIZED.
7. BEGIN SITE DEMOLITION AND CONSTRUCTION.
8. INSTALL DEWATERING MEASURES.
9. BEGIN EARTHWORK OPERATIONS.
10. APPLY TEMPORARY SEED.
11. INSTALL WATER LINES STORM SEWERS AND INLETS.
12. INSTALL WATER TOWER & CONTROL BUILDING.
13. CONSTRUCT REMAINING UTILITIES INCLUDING SANITARY, WATER, ELECTRIC, GAS AND PHONE.
14. INSTALL PAVING.
15. INSPECT AND CLEAN EXISTING AND NEW STORM SEWERS AND INLETS.
16. APPLY PERMANENT SEED.
17. INSTALL LANDSCAPING.
18. CONTINUE INSPECTIONS, MAINTENANCE, RECORD KEEPING, AND SITE POSTING UNTIL FINAL STABILIZATION ACHIEVED.
19. REMOVE TEMPORARY BMPS FROM STORM SEWER AND INLETS, AND OPEN GUTTERS AND DITCHES TO OBTAIN FREE DRAINAGE.
20. DISPOSE OF ALL DEBRIS AND WASTE MATERIAL.

BID SET

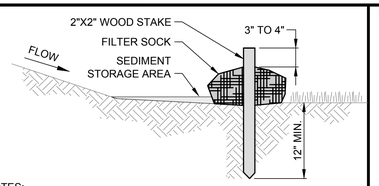
your trusted advisor consultants engineers architects planners

NO	REVISION	DATE

ISSUED FOR: BID SET
ISSUE DATE: 10/1/2025
SCALE: AS SHOWN
DESIGNED BY: AMM
DRAWN BY: AMM
CHECKED BY: RLM

VILLAGE OF LYONS
VILLAGE OF LYONS WATER TOWER PROJECT
FULTON COUNTY LYONS, OHIO
STORM WATER POLLUTION PREVENTION PLN - SWP3 SERIES
SWP3 GENERAL NOTES

PROJECT NO. 220792
DISCIPLINE SWPP
SHEET NAME SWP3-3
SHEET 19 OF 21



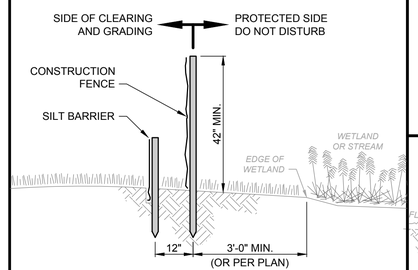
NOTES:

1. FILTER SOCKS SHALL BE 3 OR 5 MIL CONTINUOUS, TUBULAR, HDPE 3/8" KNITTED MESH NETTING MATERIAL, FILLED WITH COMPOST.
2. COMPOST SHALL BE WEED, PATHOGEN AND INSECT FREE, FREE OF ANY REFUSE, CONTAMINANTS OR OTHER MATERIALS TOXIC TO PLANT GROWTH, BE DERIVED FROM A WELL-DECOMPOSED SOURCE OF ORGANIC MATTER, AND CONSIST OF PARTICLES RANGING FROM 3/8" TO 2".
3. FILTER SOCKS SHALL BE PLACED ON A LEVEL LINE ACROSS SLOPES PARALLEL TO THE BASE OF THE SLOPE. ON SLOPES APPROACHING 2:1, ADDITIONAL SOCKS SHALL BE PROVIDED AT THE TOP AND MID-SLOPE.
4. FILTER SOCKS SHALL BE PLACED AT LEAST 5' FROM THE TOE OF SLOPE FOR SEDIMENT DEPOSIT.
5. BUILT UP SEDIMENT SHALL BE REMOVED WHEN IT HAS REACHED 1/3 THE FILTER SOCK HEIGHT.
6. WHEN A FILTER SOCK IS NO LONGER REQUIRED, IT SHALL BE DISPERSED ON-SITE.
7. THE MAXIMUM DRAINAGE AREA PER 100 FEET OF FILTER SOCK IS 1/2 ACRE AND IS DEPENDENT ON THE SLOPE FOLLOWING THE GUIDANCE CHART BELOW:

MAX. SLOPE LENGTH ABOVE FILTER SOCK					
SLOPE	RATIO (H:V)	8"	12"	18"	24"
0% - 2%	0 - 50:1	125'	250'	300'	350'
2% - 10%	50:1 - 10:1	100'	125'	200'	250'
10% - 20%	10:1 - 5:1	75'	100'	150'	200'
20% - 50%	5:1 - 2:1	N/A	50'	75'	100'
≥ 50%	≥ 2:1	N/A	25'	50'	75'

FILTER SOCK DETAIL

SCALE: NONE

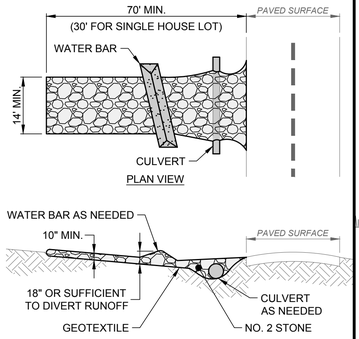


NOTES:

1. THE CONTRACTOR SHALL INSTALL AND MAINTAIN TEMPORARY BARRIERS AROUND NON-IMPACTED WETLANDS AND STREAMS TO PREVENT DISTURBANCE OR CONSTRUCTION ACTIVITIES WITHIN THE PROTECTED AREAS AND, UPON COMPLETION OF THE PROJECT, BE REMOVED.
2. CONSTRUCTION FENCE SHALL BE HIGH VISIBILITY, ORANGE COLOR, HIGH DENSITY POLYETHYLENE GRID SECURED TO STEEL POSTS LOCATED ON MAXIMUM 10' CENTERS.
3. THE FOLLOWING ACTIVITIES ARE PROHIBITED WITHIN OR THROUGH NON-IMPACTED WETLANDS AND STREAMS:
   - A. EXCAVATION OR OTHER DIGGING
   - B. IMPOUNDMENT OF WATER
   - C. STORAGE OF CONSTRUCTION MATERIALS, DEBRIS OR EXCAVATED MATERIAL
   - D. OPERATING OR PARKING VEHICLES OR EQUIPMENT
   - E. FOOT TRAFFIC
   - F. ATTACHMENT OF SIGNS TO OR WRAPPING MATERIALS AROUND TREES
   - G. ANYTHING THAT WOULD DISTURB THE GROUND

WETLAND BARRIER DETAIL

SCALE: NONE



NOTES:

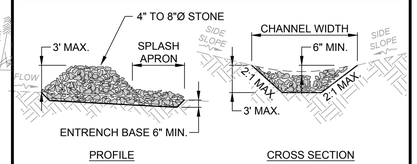
1. GEOTEXTILE SHALL BE COMPOSED OF STRONG ROT-PROOF POLYMERIC FIBERS MEETING THE FOLLOWING:

TENSILE STRENGTH	200 LB
PUNCTURE STRENGTH	80 PSI
TEAR STRENGTH	50 LB
BURST STRENGTH	320 PSI
ELONGATION	20%
EQUIVALENT OPENING SIZE	< 0.6 MM
PERMITTIVITY	0.001 CM/SEC.

2. INSTALL WATER BAR, AS NEEDED, TO PREVENT SURFACE RUNOFF FROM FLOWING OUT ONTO PAVEMENT.
3. APPLY ADDITIONAL STONE AS CONDITIONS DEMAND, REPLENISH STONE WHEN THE DEPTH IS LESS THAN 6", AND REPLACE IF STONES BECOMES MUD-LADEN.
4. IMMEDIATELY REMOVE MUD DROPPED, WASHED OR TRACKED ONTO ROADS OR ANY SURFACE WHERE RUNOFF IS NOT CHECKED BY SEDIMENT CONTROLS BY SCRAPING OR SWEEPING.
5. CONSTRUCTION ENTRANCE SHALL NOT BE RELIED UPON TO REMOVE MUD FROM VEHICLES OR PREVENT OFF-SITE TRACKING. VEHICLES THAT ENTER AND LEAVE THE SITE SHALL BE RESTRICTED FROM MUDDY AREAS.
6. CONSTRUCTION ENTRANCE SHALL REMAIN UNTIL THE DISTURBED AREA IS STABILIZED OR REPLACED WITH A PERMANENT ROADWAY.

CONSTRUCTION ENTRANCE

SCALE: NONE



NOTES:

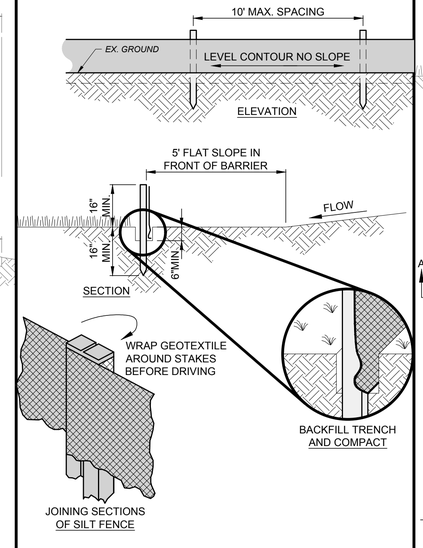
1. STONE MUST COVER THE FULL CHANNEL WIDTH.
2. ODOT TYPE 'D' STONE IS ACCEPTABLE, BUT MUST BE UNDERLAIN WITH NO. 3 OR 4 STONE OR FILTER FABRIC.
3. THE MIDPOINT OF THE CHECK DAM SHALL BE A MINIMUM OF 6" LOWER THAN THE SIDES TO DIRECT WATER ACROSS THE CENTER AND AWAY FROM CHANNEL SIDES.
4. SPACE CHECK DAMS SO TOE OF UPSTREAM DAM IS AT SAME ELEVATION AS TOP OF DOWNSTREAM DAM, OR AS FOLLOWS:

CHECK DAM HEIGHT	CHANNEL SLOPE			
	< 5%	5% - 10%	10% - 15%	15% - 20%
1 FT.	65 FT.	30 FT.	20 FT.	15 FT.
2 FT.	130 FT.	65 FT.	40 FT.	30 FT.
3 FT.	200 FT.	100 FT.	65 FT.	50 FT.

5. IF CHECK DAMS TO REMAIN IN USE FOR EXTENDED PERIOD OF TIME, INSTALL SPLASH APRON 6" MINIMUM THICK WITH LENGTH 2 TIMES CHECK DAM HEIGHT.

CHECK DAM DETAIL

SCALE: NONE



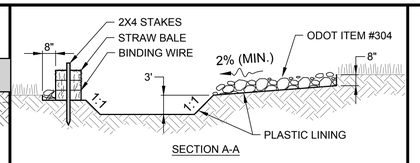
FABRIC PROPERTIES	VALUES	TEST METHOD
GRAB TENSILE STRENGTH	90 LB. MIN	ASTM D-1682
MULLEN BURST STRENGTH	190 PSI MIN	ASTM D-3786
SLURRY FLOW RATE	0.3 GAL./MIN./S.F. MAX.	
EQUIVALENT OPENING SIZE	40-80	US STD. SIEVE CW-02215
ULTRAVIOLET RADIATION STABILITY	90% MIN	ASTM-G-26

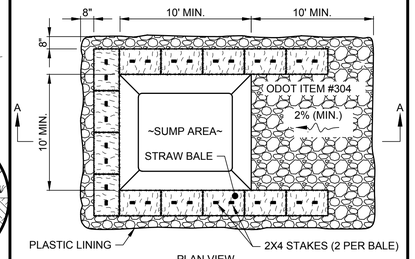
NOTES:

1. PRESERVE VEGETATION FOR 5 FEET OR AS MUCH AS POSSIBLE UPSLOPE FROM THE SILT FENCE. IF VEGETATION IS REMOVED, IT SHALL BE RE-ESTABLISHED WITHIN 7 DAYS FROM SILT FENCE INSTALLATION.
2. THE MAXIMUM DRAINAGE AREA PER 100 FEET OF SILT FENCE IS DEPENDENT ON THE SLOPE, BUT NO MORE THAN 1/2 ACRE. SILT FENCE CANNOT BE USED FOR DRAINAGE AREAS WITH SLOPES GREATER THAN 50%.
3. SILT FENCE MAY ONLY PASS RUNOFF AS DIFFUSE FLOW THROUGH THE GEOTEXTILE. IF RUNOFF OVERTOPS THE SILT FENCE, FLOWS UNDER OR AROUND THE ENDS, OR IN ANY OTHER WAY BECOMES A CONCENTRATED FLOW, THEN CHANGE THE LAYOUT OF THE SILT FENCE, REMOVE ACCUMULATED SEDIMENT OR INSTALL OTHER PRACTICES.
4. SILT FENCE SHALL BE INSPECTED FOR DEPTH OF SEDIMENT, TEARS, VERIFICATION FABRIC IS SECURELY ATTACHED TO FENCE POSTS, AND VERIFICATION FENCE POSTS ARE FIRMLY IN THE GROUND. BUILT UP SEDIMENT SHALL BE REMOVED FROM SILT FENCE WHEN IT HAS REACHED 1/3 THE FENCE HEIGHT.

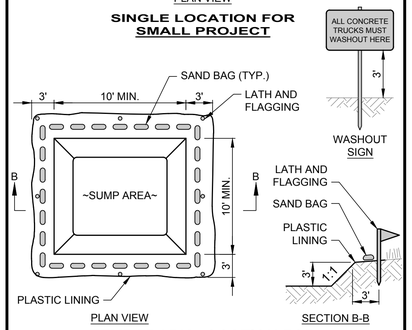
SILT FENCE

SCALE: NONE





SINGLE LOCATION FOR SMALL PROJECT



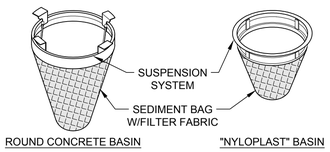
TEMPORARY LOCATION FOR MULTIPLE PHASE OR LARGE PROJECT

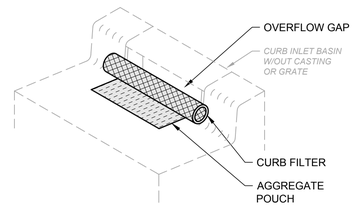
NOTES:

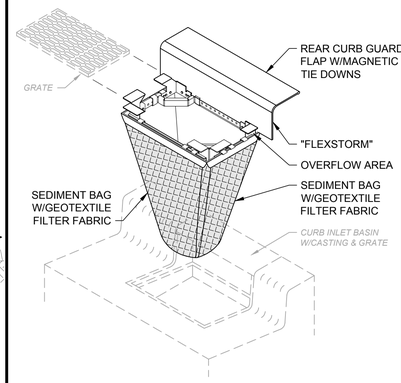
1. CONCRETE WASHOUT AREA SHALL BE LOCATED A MINIMUM OF 100' FROM STORM SEWER INLETS, STREAMS, WETLANDS OR ANY OTHER SURFACE WATERS.
2. IF CONCRETE WASHOUT AREA IS LOCATED AWAY FROM A PAVED SURFACE, CONSTRUCT A GRAVEL ACCESS ROUTE EQUAL IN COMPOSITION TO A CONSTRUCTION ENTRANCE.
3. CONCRETE WASHOUT AREA SHALL BE SUFFICIENT SIZE TO CONTAIN CONCRETE WASTE GENERATED. LARGE SITES MAY REQUIRE MULTIPLE CONCRETE WASHOUT AREAS.
4. PLASTIC LINING SHALL BE DOUBLE-LINED, CONTINUOUS 10-ML POLYETHYLENE SHEETING FREE OF HOLES, TEARS OR OTHER DEFECTS INSTALLED ON A SMOOTH, LEVEL SURFACE, FREE OF LARGE ROCKS AND DEBRIS.
5. CONCRETE WASHOUT SIGNAGE SHALL BE CLEARLY VISIBLE AND LOCATED WITHIN 30 FEET OF EACH WASHOUT AREA.
6. CONCRETE WASHOUT AREA SHALL BE COVERED DURING INCLEMENT WEATHER TO PREVENT OVERFLOW.
7. PREFABRICATED, PORTABLE AND RE-USABLE CONCRETE WASHOUT CONTAINERS ARE ACCEPTABLE.
8. CONCRETE WASHOUT AREA SHALL BE INSPECTED DAILY TO CHECK FOR DAMAGE AND DETERMINE IF IT NEEDS CLEANED OR REPLACED. ANY DAMAGE TO THE SIDEWALLS OR PLASTIC LINING SHALL BE REPAIRED IMMEDIATELY. REPLACE THE ENTIRE CONCRETE WASHOUT AREA WHEN IT IS 75% FULL.

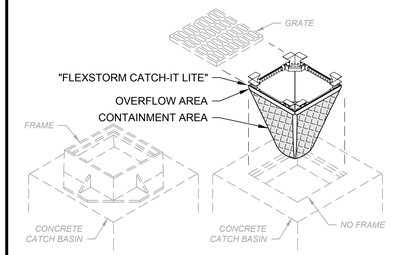
CONCRETE WASHOUT AREA DETAIL

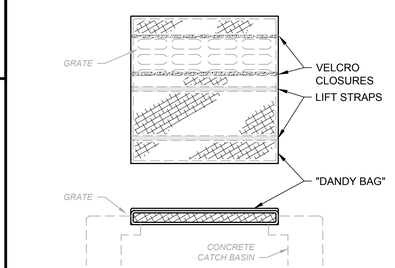
SCALE: NONE











NOTES:

1. ALL NEW AND EXISTING STORM INLET BASINS WITHIN THE WORK LIMITS SHALL HAVE INLET PROTECTION INSTALLED.
2. INLET PROTECTION SHALL BE INSTALLED AS EACH STORM INLET IS CONSTRUCTED.
3. NOT ALL ITEMS SHOWN MAY APPLY OR DIFFERENT TYPES OR CONFIGURATIONS MAY BE REQUIRED. THE CONTRACTOR SHALL MEASURE EACH INLET TO CONFIGURE AND ASSEMBLE CUSTOMIZED INLET FILTERS.

INLET PROTECTION DETAIL

SCALE: NONE

BID SET

your trusted advisor
consultants
engineers
architects
planners

NO	REVISION	DATE

ISSUED FOR: 10/1/2025
ISSUE DATE: AS SHOWN
SCALE: AMM
DESIGNED BY: AMM
DRAWN BY: RML
CHECKED BY:

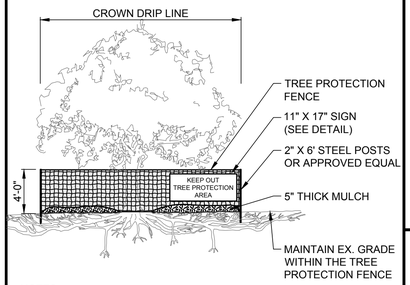
VILLAGE OF LYONS
VILLAGE OF LYONS WATER TOWER PROJECT
FULTON COUNTY LYONS, OHIO
STORM WATER POLLUTION PREVENTION PLN - SWP3 SERIES
SWP3 DETAILS 1

PROJECT NO. 220792
DISCIPLINE SWPP
SHEET NAME SWP3-2
SHEET 20 OF 21

NOTES:

1. MULCH SHALL CONSIST OF ONE OF THE FOLLOWING:
   - UNROTTED SMALL GRAIN STRAW SPREAD UNIFORMLY AT 2 TONS/AC. (2 TO 3 BALES).
   - WOOD-CELLULOSE FIBER (I.E. HYDROSEEDING) APPLIED AT 1 TON/AC.
   - ROLLED EROSION CONTROL PRODUCT OR MULCH MATTING APPLIED PER MANUFACTURER RECOMMENDATION.
   - WOOD MULCH OR CHIPS APPLIED AT 6 TONS/AC.
2. MULCH SHALL BE ANCHORED IMMEDIATELY BY ONE OF THE FOLLOWING METHODS:
   - PUNCH OR ANCHOR THE MULCH MATERIAL INTO THE SOIL USING A DISK, CRIMPER OR SIMILAR TOOL. DO NOT FINELY CHOP STRAW TO BE MECHANICALLY ANCHORED, BUT LEAVE LONGER THAN 6".
   - NETTING PER MANUFACTURER RECOMMENDATION IN AREAS OF CONCENTRATED RUNOFF OR ON CRITICAL SLOPES.
   - SYNTHETIC BINDERS AT MANUFACTURER RATE.
   - WOOD-CELLULOSE FIBER BINDER AT A NET DRY WEIGHT OF 750 LB/AC., MIXED WITH WATER, AND CONTAIN 50 LB/100 GAL. MAX. OF WOOD CELLULOSE FIBER.

MULCHING DETAIL



NOTES:

1. TREE PROTECTION FENCE MUST BE INSTALLED PRIOR TO BEGINNING CLEARING OPERATIONS AND REMAIN UNTIL FINAL GRADING HAS BEEN COMPLETED.
2. FENCE MUST BE PLACED BEYOND THE DRIP LINE OR CANOPY OF TREES (SEE PLANS FOR GENERAL FENCE ALIGNMENT).
3. FENCE SHALL BE ORANGE COLOR, HIGH DENSITY POLYETHYLENE FENCING WITH 3.5" X 1.5" OPENINGS.
4. STEEL POSTS SHALL BE INSTALLED AT 8' O.C. MIN.
5. SIGN SHALL BE LAMINATED IN PLASTIC AND SPACED EVERY 50' ALONG THE FENCE.
6. NO EQUIPMENT SHALL OPERATE INSIDE THE PROTECTIVE FENCING, INCLUDING FENCE INSTALLATION AND REMOVAL.

TREE PROTECTION DETAIL

SCALE: NONE

NOTES:

1. SOD SHALL BE HARVESTED, DELIVERED AND INSTALLED WITHIN 48 HOURS. SOD NOT TRANSPLANTED WITHIN THIS PERIOD SHALL BE INSPECTED AND APPROVED PRIOR TO INSTALLATION.
2. SOD SHALL BE KEPT MOIST AND COVERED DURING HAULING AND PREPARATION FOR PLACEMENT.
3. SOD SHALL BE MACHINE CUT AT A UNIFORM SOIL THICKNESS OF 3/4" ±1/4", EXCLUDING TOP GROWTH AND THATCH.
4. AREAS SHALL BE GRADED AND TOPSOIL SPREAD AS NEEDED.
5. THE SEEDBED SHALL BE PREPARED BY APPLYING AGRICULTURAL GROUND LIMESTONE OR FERTILIZER AS RECOMMENDED BY A SOIL TEST. IN LIEU OF A SOIL TEST, APPLY LIME AT 100 LB/1,000 S.F. OR FERTILIZER AT 12 LB/1,000 S.F. OF 10-10-10 OR 12-12-12 ANALYSIS. LIME AND FERTILIZER SHALL BE WORKED INTO THE SOIL TO A DEPTH OF 3".
6. BEFORE LAYING SOD, THE SURFACE SHALL BE FINE GRADED AND CLEARED OF DEBRIS, STONES AND CLODS LARGER THAN 3" DIAMETER. KNOCK DOWN HIGH SPOTS AND FILL IN LOW SPOTS SO SOIL IS LEVEL AND 1" BELOW THE GRADE OF ANY PAVED SURFACE, SUCH AS CURBS, WALKS AND PAVEMENT.
7. DURING PERIODS OF EXCESSIVELY HIGH TEMPERATURES, THE SOIL SHALL BE LIGHTLY IRRIGATED PRIOR TO LAYING SOD.
8. DO NOT PLACE SOD ON FROZEN SOIL.
9. THE FIRST ROW OF SOD SHALL BE LAID IN A STRAIGHT LINE WITH SUBSEQUENT ROWS PLACED PARALLEL TO AND TIGHTLY WEDGED AGAINST EACH OTHER. LATERAL JOINTS SHALL BE STAGGERED IN A BRICK-LIKE PATTERN. ENSURE SOD IS NOT STRETCHED OR OVERLAPPED, AND JOINTS ARE BUTTED TIGHT.
10. ON SLOPING AREAS WHERE EROSION MAY BE A PROBLEM, SOD SHALL BE LAID WITH THE LONG EDGE PARALLEL TO THE CONTOUR, WITH STAGGERED JOINTS AND BE SECURED WITH PEGS OR STAPLES.
11. AS SODDING IS COMPLETED IN ANY ONE SECTION, ROLL OR TAMP THE SOD TO ENSURE SOLID CONTACT OF ROOTS WITH THE SOIL. WATER IMMEDIATELY AFTER ROLLING OR TAMPING UNTIL THE SOD AND SURFACE BELOW ARE THOROUGHLY WET. THE OPERATIONS OF LAYING, TAMPING AND IRRIGATING FOR ANY PIECE OF SOD SHALL BE COMPLETED WITHIN 8 HOURS.
12. IN THE ABSENCE OF ADEQUATE RAINFALL DURING THE FIRST WEEK, WATER DAILY OR AS NECESSARY TO MAINTAIN MOIST SOIL. AFTER THE FIRST WEEK, WATER SOD AS NECESSARY TO MAINTAIN ADEQUATE MOISTURE AND ENSURE ESTABLISHMENT.
13. DO NOT MOW UNTIL SOD IS FIRMLY ROOTED.

SODDING DETAIL

NOTES:

1. THE SEED BED SHALL BE PULVERIZED AND LOOSE TO ENSURE THE SUCCESS OF ESTABLISHING VEGETATION.
2. SOIL AMENDMENTS MAY BE REQUIRED TO ESTABLISH VEGETATION. PERFORM SOIL TESTS TO PREDICT THE NEED FOR LIME OR FERTILIZER. IN LIEU OF A SOIL TEST, APPLY LIME AT 2 TONS/AC. OR FERTILIZER AT 500 LB/AC. OF 10-10-10 OR 12-12-12 ANALYSIS
3. APPLY SEED UNIFORMLY. COVER BROADCASTED SEED BY RAKING OR DRAGGING, AND LIGHTLY TAMPING INTO PLACE.
4. MULCH SHALL BE APPLIED IMMEDIATELY AFTER SEEDING.
5. INSPECT FOR SOIL EROSION OR VEGETATION LOSS AND REPAIR BARE OR SPARSE AREAS, FILL GULLIES, RE-FERTILIZE, RE-SEED AND RE-MULCH AS NEEDED.

TEMPORARY SEEDING SPECIES SELECTION			
DATES	SPECIES	LB/1,000 SF	LB/AC.
MARCH 1 - AUGUST 15	OATS TALL FESCUE PERENNIAL RYEGRASS	3 1 1	128 40 40
	PERENNIAL RYEGRASS TALL FESCUE	2 1	40 40
AUGUST 16 - OCTOBER 31	RYE TALL FESCUE PERENNIAL RYEGRASS	3 1 1	112 40 40
	WHEAT TALL FESCUE PERENNIAL RYEGRASS	3 1 1	120 40 40
	PERENNIAL RYEGRASS TALL FESCUE	2 1	40 40
NOVEMBER 1 - FEBRUARY 28	ONLY MULCH OR DORMANT SEEDING.		

TEMPORARY SEEDING DETAIL

NOTES:

1. SUBSOILING SHALL OCCUR WHEN SOIL MOISTURE IS LOW ENOUGH TO ALLOW THE SOIL TO CRACK OR FRACTURE. SUBSOILING IS NOT PERMITTED ON SLIP-PRONE AREAS.
2. DISTURBED AREAS SHALL BE GRADED AND TOPSOIL SPREAD.
3. THE SEED BED SHALL BE PREPARED BY APPLYING AGRICULTURAL GROUND LIMESTONE OR FERTILIZER AS RECOMMENDED BY A SOIL TEST. IN LIEU OF A SOIL TEST, APPLY LIME AT 2 TONS/AC. OR FERTILIZER AT 500 LB/AC. OF 10-10-10 OR 12-12-12 ANALYSIS. LIME AND FERTILIZER SHALL BE WORKED INTO THE SOIL TO A DEPTH OF 3".
4. APPLY SEED UNIFORMLY ON FIRM, MOIST SEED BED BETWEEN MARCH 1 AND MAY 31 OR AUGUST 1 AND SEPTEMBER 30. TILLAGE FOR SEEDBED PREPARATION SHALL OCCUR WHEN THE SOIL IS DRY ENOUGH TO CRUMBLE AND NOT FORM RIBBONS WHEN COMPRESSED BY HAND. SEEDING SHOULD NOT BE APPLIED BETWEEN OCTOBER 1 AND NOVEMBER 20 BECAUSE SEEDS MAY GERMINATE, BUT WILL NOT SURVIVE THE WINTER. IF SEEDING MUST OCCUR, INCREASE THE SEEDING RATE BY 50% AND ANCHOR. APPLY ADDITIONAL MULCH AND IRRIGATION AS REQUIRED TO ENSURE GERMINATION.
5. MULCH SHALL BE APPLIED IMMEDIATELY AFTER SEEDING.
6. SEEDING SHALL INCLUDE IRRIGATION TO ESTABLISH VEGETATION DURING DRY OR HOT WEATHER OR ON ADVERSE SITE CONDITIONS. AVOID EXCESSIVE IRRIGATION TO PREVENT EROSION AND DAMAGE FROM RUNOFF.
7. SEEDING SHALL NOT BE CONSIDERED ESTABLISHED FOR AT LEAST 1 FULL YEAR FROM THE TIME OF SEEDING. DURING THIS PERIOD INSPECT FOR SOIL EROSION OR VEGETATION LOSS AND REPAIR BARE OR SPARSE AREAS, FILL GULLIES, RE-FERTILIZE, RE-SEED AND RE-MULCH AS NEEDED.
8. ADEQUATE PERMANENT VEGETATION SHALL BE GROUND COVER DENSE ENOUGH TO COVER 80% OF THE SOIL SURFACE BASED ON VISUAL INSPECTION.

PERMANENT SEEDING FERTILIZATION AND MOWING CHART				
MIXTURE	FORMULA	LB/ AC.	TIME	MOW
CREEPING RED FESCUE DOMESTIC RYEGRASS KENTUCKY BLUEGRASS	10-10-10	500	FALL, YEARLY, OR AS NEEDED	≥3"
TALL FESCUE	10-10-10	500		≥4"
TURF-TYPE FESCUE	10-10-10	500		
CROWN VETCH FESCUE	0-20-20	400	SPRING, AND YEARLY AFTER ESTABLISHED	DO NOT MOW
FLAT PEA FESCUE	0-20-20	400		

PERMANENT SEEDING SPECIES SELECTION		
SEED MIX	SEED RATE LB/AC.	NOTES:
GENERAL USE		
CREEPING RED FESCUE DOMESTIC RYEGRASS KENTUCKY BLUEGRASS	20 - 40 10 - 20 20 - 40	FOR CLOSE MOWING AND WATERWAYS WITH ≤2.0 FT./SEC. VELOCITY
TALL FESCUE	40 - 50	
TURF-TYPE FESCUE	90	
STEEP BANKS OR CUT SLOPES		
TALL FESCUE	40 - 50	
CROWN VETCH TALL FESCUE	10 - 20 20 - 30	DO NOT SEED LATER THAN AUGUST
FLAT PEA TALL FESCUE	20 - 25 20 - 30	DO NOT SEED LATER THAN AUGUST
ROAD DITCHES AND SWALES		
TALL FESCUE	40 - 50	
TURF-TYPE FESCUE KENTUCKY BLUEGRASS	90 5	
LAWN		
KENTUCKY BLUEGRASS PERENNIAL RYEGRASS	100 - 120 100 - 120	
KENTUCKY BLUEGRASS CREEPING RED FESCUE	100 - 120 100 - 120	FOR SHADED AREAS

PERMANENT SEEDING DETAIL

BID SET

your trusted advisor
consultants
engineers
architects
planners

NO	REVISION	DATE

ISSUED FOR:	BID SET
ISSUE DATE:	10/1/2025
SCALE:	AS SHOWN
DESIGNED BY:	AMM
DRAWN BY:	AMM
CHECKED BY:	RLM

VILLAGE OF LYONS
VILLAGE OF LYONS
WATER TOWER PROJECT
FULTON COUNTY
LYONS, OHIO
STORM WATER POLLUTION PREVENTION PLN - SWP3 SERIES
SWP3 DETAILS 2

PROJECT NO.
220792
DISCIPLINE
SWPP
SHEET NAME
SWP3-3
SHEET 21 OF 21