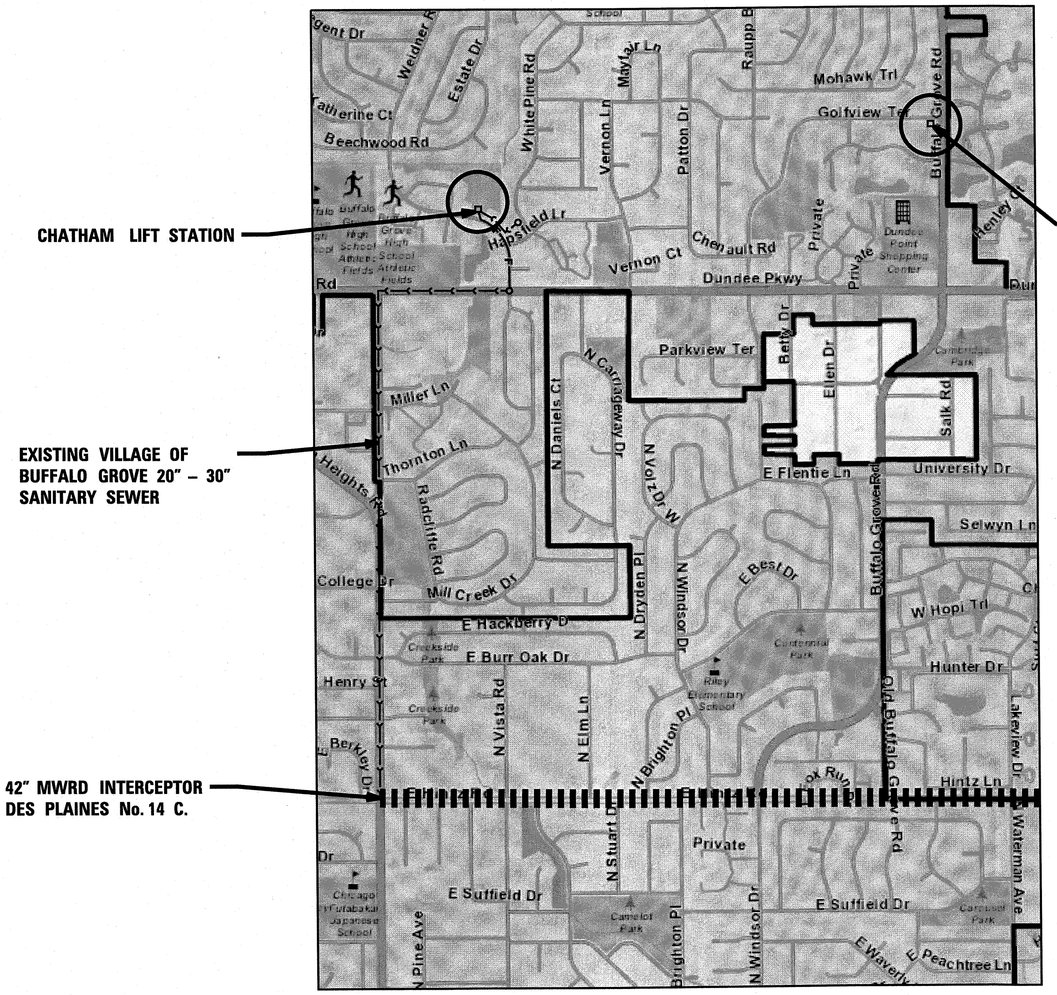
VILLAGE OF BUFFALO GROVE
CHATHAM LIFT STATION RECONSTRUCTION

BID# VoBG–2020–03



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200′ — 1″ = 100′
50′ 100′ — 1″ = 50′
50′ 100′ — 1″ = 20′

FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES, REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED

CONTACT INFORMATION	
J.U.L.I.E.	800.892.0123
Buffalo Grove	
Public Works	847.459.2545
Police	847.459.2560
Fire	847.537.0995
Emergency	911

BENCHMARK (NAVD 88)

Village Benchmark 26
FEMA Reference Mark #4
Center of North Headwall of
White Pine Ditch at Dundee Road Crossing
NAVD '88
EL = 693.34′

LUKE MATTSON
062-059493
LICENSED PROFESSIONAL ENGINEER OF ILLINOIS
DATE: 1/17/2020
SEAL EXPIRES: 11/30/2021
SHEETS 1–5, 8–12

JOSEPH M. VONDRA
062-055846
LICENSED PROFESSIONAL ENGINEER OF ILLINOIS
DATE: 1/17/2020
SEAL EXPIRES: 11/30/2021
SHEETS 6–7

CiorbaGroup
CIORBA GROUP, INC.
8725 W HIGGINS RD
SUITE 600
CHICAGO, IL 60631
773–775–4009

CHATHAM LIFT STATION RECONSTRUCTION

JANUARY 2020 | SHEET 1 OF 12

GENERAL NOTES:

1. THE CONTRACTOR SHALL NOTIFY J.U.L.I.E (DIAL 1-800-892-0123) 48 HOURS PRIOR TO ANY EXCAVATION WORK TO DETERMINE THE LOCATIONS OF EXISTING UTILITIES.

2. THE VILLAGE OF BUFFALO GROVE, AND THEIR DESIGNATED AGENTS SHALL BE NOTIFIED BY THE CONTRACTOR 48 HOURS PRIOR TO STARTING CONSTRUCTION.

3. DO NOT SCALE DRAWINGS FOR CONSTRUCTION DIMENSIONS.

4. THE ENGINEER PLEDGES THE DESIGN, RECOMMENDATIONS, AND SPECIFICATIONS TO HAVE BEEN PREPARED IN ACCORDANCE WITH CONDITIONS GENERALLY ENCOUNTERED IN THE INDUSTRY. THE DESIGN ENGINEER ASSUMES NO RESPONSIBILITY WITH RESPECT TO THE DESIGN RECOMMENDATIONS AND SPECIFICATIONS FOR COMPLEX OR UNUSUAL SOIL CONDITIONS ENCOUNTERED ON THE PROJECT. IT SHALL BE THE BIDDERS' RESPONSIBILITY TO ASCERTAIN THE EXACT NATURE OF SUBSURFACE CONDITIONS PRIOR TO THE CONSTRUCTION OF THE IMPROVEMENTS.

5. THE LOCATION OF EXISTING UTILITIES, EASEMENTS, AND RIGHT-OF-WAYS ARE SHOWN ON THESE PLANS ACCORDING TO SURVEYS CARRIED OUT AND REPRESENT THE BEST INFORMATION MADE POSSIBLE TO THE ENGINEER. THIS DOES NOT PRECLUDE THE EXISTENCE OF OTHER UNDERGROUND UTILITIES. THE CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF THE LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION AND TO PROVIDE FOR THEIR PROTECTION FROM DAMAGE DURING THE CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR OR REPLACEMENT OF ANY UTILITY DAMAGED DURING CONSTRUTION TO THE SATISFACTION OF THE OWNERS'S REPRESENTATIVE AT THE CONTRACTOR'S COST. IF OTHER UTILITIES OR CONFLICTS ARE ENCOUNTERED, THE CONTRACTOR SHALL NOTIFY THE ENGINEER SO THE CONFLICT CAN BE RESOLVED.

6. BEFORE BEGINNING CONSTRUCTION, THE CONTRACTOR SHALL VERIFY THE LINE AND GRADES SHOWN ON THE CONTRACT DRAWINGS. IF THERE ARE ANY DISCREPANCIES FROM WHAT IS SHOWN ON THE CONTRACT DRAWINGS, THE CONTRACTOR SHALL IMMEDIATELY REPORT SAME TO THE OWNER PRIOR TO PERFORMING WORK. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION OF WORK REQUIRED.

7. ALL WORK SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE FOLLOWING SPECIFICATIONS, WHICH ARE HEREBY MADE A PART HEREOF:
   A. "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION IN ILLINOIS", LATEST EDITION.
   B. "STANDARD SPECIFICATIONS FOR WATER AND SEWER CONSTRUCTION IN ILLINOIS", LATEST EDITION.
   C. OWNER AND CURRENT MUNICIPAL CODES.
   D. NATIONAL ELECTRIC CODE.

8. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE ALL MATERIAL QUANTITIES AND APPRAISE HIMSELF OF ALL CONDITIONS. THE CONTRACT PRICE SUBMITTED BY THE CONTRACTOR SHALL BE CONSIDERED AS THE TOTAL COST FOR THE COMPLETE PROJECT. NO CLAIMS FOR EXTRA WORK WILL BE RECOGNIZED DUE TO THE CONTRACTOR'S FAILURE TO UNDERSTAND THE SCOPE OF WORK.

9. THE CONTRACTOR, AT HIS EXPENSE, SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND BONDS FOR CONSTRUCTION ALONG OR ACROSS EXISTING ROADWAYS WITHIN THE PROJECT SITE. THE CONTRACTOR SHALL MAKE ARRANGEMENTS FOR PROPER BRACING, SHORING, OR OTHER PROTECTION REQUIRED, INCLUDING INSTALLATION AND MAINTENANCE OF ADEQUATE TRAFFIC CONTROL AND PROTECTION BEFORE CONSTRUCTION BEGINS. ALL WORK CONDUCTED SHALL BE PROTECTED IN ACCORDANCE WITH APPLICABLE PORTIONS OF THE LATEST EDITION OF THE "ILLINOIS DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" (IL STANDARD SPECIFICATIONS), SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS, AND THE LATEST EDITION OF THE "ILLINOIS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD).

10. THE ENGINEER WILL NOT BE RESPONSIBLE FOR CONTRACTORS' MEANS, METHODS, TECHNIQUES, SEQUENCES, OR PROCEDURES OF CONSTRUCTION, OR THE SAFETY, PRECAUTIONS, AND PROGRAMS INCIDENT THERETO, AND THE ENGINEER WILL NOT BE RESPONSIBLE FOR CONTRACTORS' FAILURE TO PERFORM OR FURNISH THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.

11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF ADEQUATE SIGNS AND WARNING DEVICES TO INFORM AND PROTECT THE PUBLIC. THE STANDARD SPECIFICATIONS SHALL APPLY. APPROPRIATE CONTROL METHODS SHALL BE APPLIED TO THE SPECIFIC SITUATIONS AND TYPES OF CONSTRUCTION OPERATIONS BEING PERFORMED.

12. THE CONTRACTOR SHALL RESTORE SURFACES TO THE ORIGINAL PRE-CONSTRUCTION CONDITION IF DAMAGED BY CONSTRUCTION. ANY EXISTING CURB, PAVEMENT, OR SIDEWALK DISTURBED DURING THE CONSTRUCTION PROCESS IS TO BE REPLACED. UNPAVED AREAS ARE TO BE FINE GRADED AND SODDED UNLESS OTHERWISE NOTED. ALL EXCESS TRENCH MATERIAL IS TO BE REMOVED FROM THE SITE. THE COST OF SAID REPLACEMENT AND REMOVAL SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.

13. ALL TRENCHES CAUSED BY THE CONSTRUCTION OF SEWERS, FORCEMAINS, WATERMAIN, WATER SERVICE PIPES, AND ALL EXCAVATIONS AROUND CATCH BASINS, MANHOLES, INLETS, AND OTHER APPURTENANCES WHICH OCCUR WITHIN TWO FEET OF THE LIMITS OF EXISTING AND PROPOSED PAVEMENTS, SIDEWALKS, AND CURB AND GUTTERS, SHALL BE BACKFILLED WITH SELECT GRANULAR BACKFILL (CRUSHED) (IDOT GRADATON CA-7) AND COMPACTED PROPERLY, OR AS SHOWN ON THE DETAILS. ANY DEPRESSIONS IN PAVEMENT AREAS THAT WERE REPLACED SHALL BE REMOVED AND CONSTRUCTED PROPERLY AT THE CONTRACTOR'S EXPENSE IN ACCORDANCE WITH THE APPROPRIATE STANDARD.

14. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ABIDE BY, ADHERE TO, AND PERFORM ALL WORK IN ACCORDANCE WITH THE REQUIREMENTS, SPECIFICATIONS, STANDARDS, PRACTICES, POLICIES, AND CODES OF THE OWNER WHICH INCLUDES, BUT IS NOT LIMITED TO, LABOR, MATERIALS, PROCEDURES, AND SAFETY.

15. THE CONTRACTOR IS RESPONSIBLE FOR HAVING THE MOST RECENT SET OF APPROVED FINAL ENGINEERING PLANS WITH THE LATEST REVISION DATE ON THE JOB SITE PRIOR TO THE START OF CONSTRUCTION.

16. NO HOLES ARE TO BE LEFT OPEN IN THE PAVEMENT OR PARKWAY OVER A HOLIDAY, WEEKEND, OR AFTER COMPLETION OF THE DAY'S ACTIVITIES ON THE DAY PRECEDING A HOLIDAY OR A WEEKEND.

17. ANY CHANGES, REVISIONS, OR SUBSTITUTIONS TO THE PLANS, SPECIFICATIONS, MATERIALS, REQUIREMENTS, OR WORK SHALL BE SUBMITTED TO THE OWNER, IN WRITING, WITH WRITTEN APPROVAL BY THE OWNER RECEIVED PRIOR TO BEGINNING SAID WORK. ALL MATERIALS AND CONSTRUCTION WHETHER IMPLICITLY OR EXPLCITLY STATED OR COVERED WITHIN THE REQUIREMENTS, CODES OR SPECIFICATIONS, SHALL BE APPROVED BY THE OWNER, PRIOR TO COMMENCING THE INSTALLATION AND CONSTRUCTION.

18. THE DESIGN OF PROPOSED LIFT STATION AND FORCEMAIN AND THE LOCATIONS AND ELEVATIONS OF EXISTING UTILITIES ARE SHOWN BASED ON INTERPRETATION OF INFORMATION RECEIVED. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL EXISTING WATERMAIN, SANITARY AND STORM SEWER, AND UTILITIES PRIOR TO INSTALLATION OF LIFT STATION OR FORCEMAIN.

19. NO EXTRA WORK OF ANY NATURE SHALL BE UNDERTAKEN WITHOUT FIRST OBTAINING WRITTEN APPROVAL FROM THE OWNER OR HIS REPRESENTATIVE.

20. THE CONTRACTOR SHALL LIMIT CONSTRUCTION ACTIVITIES AND STORAGE OF EQUIPMENT OR MATERIALS TO THE DESIGNATED OR APPROVED WORK CONSTRUCTION LIMITS. ANY DAMAGE TO PRIVATE PROPERTY SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE.

21. PROPOSED EQUIPMENT, CONDUITS, ETC. ARE SHOWN DIAGRAMMATICALLY. THE CONTRACTOR SHALL COORDINATE EXACT EQUIPMENT SIZES, LOCATIONS, ROUTING, ETC. VERIFY ALL LOCATIONS / ROUTING WITH OWNER.

22. ANY AND ALL DEWATERING REQUIRED TO KEEP EXCAVATIONS DRY SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. ALL SPOILS SHALL BE PROMPTLY REMOVED FROM SITE.

23. LIMITS OF CONSTRUCTION SHALL BE SUBJECT TO OWNER'S APPROVAL AND SHALL NOT IMPACT EXISTING ROADWAY PAVEMENT EXCEPT WHERE IMPROVEMENTS ARE SHOWN BY DRAWINGS. LIMITS OF CONSTRUCTION (OTHER THAN ACROSS ROADWAY PAVEMENT) SHALL BE FENCED OFF IN ACCORDANCE WITH SECTION 015000 OF THE SPECIFICATIONS.

PROJECT SPECIFIC NOTES

1. ALL CONSTRUCTION WILL BE INSPECTED BY THE OWNER'S REPRESENTATIVE. ALL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE MUNICIPALITIES CODE AS WELL AS THE STANDARD SPECIFICATIONS.

2. THE CONTRACTOR SHALL INDEMNIFY THE OWNER, ENGINEER, THE MUNICIPALITY, AND THEIR AGENTS, FROM ALL LIABILITY INVOLVED IN CONSTRUCTION, INSTALLATION AND TESTING OF THE WORK ON THIS PROJECT.

3. THE CONTRACTOR MUST CARRY INSURANCE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS. ALL OFFICIALS, EMPLOYEES, AND AGENTS OF CIORBA GROUP MUST BE LISTED AS ADDITIONAL INSURED.

4. 3/4" THICK PRE-MOLDED FIBER EXPANSION JOINTS WITH 2, 3/4" X 18" PLAIN ROUND, STEEL DOWEL BARS SHALL BE INSTALLED IN ALL CURBS AT (45') FORTY FIVE FOOT INTERVALS AND AT ALL P.C.'S, P.T.'S, AND CURB RETURNS. ALTERNATE ENDS OF THE DOWEL BARS SHALL BE GREASED AND FITTED WITH METAL EXPANSION TUBES. ALL EXPANSION JOINTS MUST BE FREE OF CONCRETE FOR FULL DEPTH. CONTRACTION JOINTS SHALL BE TOOLED AT 15' INTERVALS.

5. UNLESS OTHERWISE NOTED ON THE PLANS WHENEVER NEW CONCRETE ABUTS EXISTING/ OR NEW CONCRETE SET A 1/2" THICK PRE-MOLDED FIBER EXPANSION JOINT AND DOWEL WITH SMOOTH 12" #4 BARS @ 24" O.C. THIS INCLUDES CONCRETE POURED ADJACENT TO EXISTING SIDEWALKS, CURBS, AND BUILDING. THE DOWEL BARS SHOULD BE 4" INTO EXISTING CONCRETE WITH 8" EXTENDING INTO NEW CONCRETE.

6. ALL DOWEL BARS AND TIE BARS SHALL BE EPOXY COATED UNLESS NOTED OTHERWISE.

7. ALL PAVEMENT SUBGRADE SHALL BE COMPACTED TO 95% MODIFIED PROCTOR DENSITY. ALL SUBGRADE IN LAWN AREAS SHALL BE COMPACTED TO 90% MODIFIED PROCTOR DENSITY.

8. ALL REFERENCES TO "ENGINEER" SHALL BE INTERPRETED TO MEAN THE VILLAGE ENGINEER OR AUTHORIZED VILLAGE REPRESENTATIVE.

CONSTRUCTION MANAGEMENT REQUIREMENTS:

1. CONTRACTOR SHALL SUBMIT A MAINTENANCE AND PROTECTION OF TRAFFIC CONTROL PLAN AND RECEIVE APPROVAL FROM THE ENGINEER PRIOR TO BEGINNING ANY WORK. THE PLAN SHALL INCLUDE TEMPORARY TRAFFIC CONTROL MEASURES INCLUDING TRAFFIC FLOW, PARKING, AND ACCESS, AND INCLUDE ANY DETOURS, SIGNAGE, BARRIERS, COORDINATION, MAINTENANCE OF THE PLAN, AND ANY WORK NECESSARY TO LIMIT DISRUPTION OF ADJACENT PROPERTIES. ALL COST ASSOCIATED WITH TRAFFIC CONTROL SHALL BE INCLUDED IN THE COST OF THE VARIOUS ITEMS OF WORK BID.

2. ACCESS MUST BE PROVIDED FOR VILLAGE PERSONNEL TO ENTER PROJECT SITE AND TAKE ACTION IN EMERGENCY OR VIOLATION SITUATIONS.

3. SITE SECURITY FENCING IS REQUIRED. A SITE PLAN MUST BE SUBMITTED THAT SHOWS THE PROPOSED LOCATION OF THE SECURITY FENCING TO BE PROVIDED DURING CONSTRUCTION. FENCING SHALL BE CONSTRUCTED OF SIX-FOOT HIGH CHAIN LINK FENCING LOCATED AT THE LIMITS OF CONSTRUCTION.

4. THE FENCING MUST BE GATED AND THE GATE LOCKED WITH A SHARED LOCK AT THE END OF EVERY WORKDAY OR WHEN NO RESPONSIBLE PERSONS ARE ON SITE. FAILURE TO LOCK THE FENCE WILL RESULT IN A ONE-DAY STOP ORDER AND REQUIRE THE PAYMENT OF $100 LOCKING SERVICE FEE TO REMOVE THE VILLAGE'S LOCK.

5. DUMPSTERS AND PORTABLE TOILETS ARE REQUIRED. A PLAN MUST BE SUBMITTED WHICH INDICATES THE PROPOSED LOCATIONS OF THE DUMPSTER AND PORTABLE TOILET. ALL DUMPSTERS MUST BE COVERED AND ENCLOSED.

6. CONTRACTOR SHALL BE RESPONSIBLE FOR THE IMMEDIATE RESTORATION OF ALL OFF-SITE AREAS DISTURBED IN CONJUNCTION WITH THE PERMITTED CONSTRUCTION ACTIVITY.

7. SIDEWALKS, PARKING LOTS, AND OTHER PUBLIC AND PRIVATE PROPERTY MUST BE KEPT SAFE AND FREE FROM MUD, DIRT, DEBRIS, AND SWEPT DAILY.

VILLAGE OF BUFFALO GROVE NOTES

1. FRAMES, LIDS, GRATES, VALVES, FIRE HYDRANTS, ECT. WHICH ARE ABANDONED OR REPLACED IN THIS PROJECT SHALL BE SALVAGED AND REMAIN PROPERTY OF THE VILLAGE OF BUFFALO GROVE. THE CONTRACTOR SHALL COORDINATE DELIVERY TO 51 RAUPP BLVD WITH THE ENGINEER. ANY DAMAGE TO THE SALVAGED ITEMS DUE TO THE CONTRACTOR'S NEGLIGENCE SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.

2. THE CONTRACTOR SHALL GIVE NOTICES AND COMPLY WITH APPLICABLE LAWS, ORDINANCES, RULES, REGULATIONS, AND LAWFUL ORDERS OF ALL PUBLIC AUTHORITIES BEARING ON SAFETY OF PERSONS OR PROPERTY OR THEIR PROTECTION FROM DAMAGE, INJURY, OR LOSS.

3. ANY EARTH EXCAVATION DONE WITH REMOVAL OR FRAMING OF DRIVEWAY OR SIDEWALK IS INCIDENTAL TO THAT ITEM.

4. ANY STREET LIGHT POLE BRACING REQUIRED SHALL BE CONSIDERED INCLUDED IN THE COST OF THE CONTRACT.

5. NO SIGNAGE IS TO BE REMOVED. IF SIGNS ARE TAKEN DOWN FOR CONSTRUCTION PURPOSES, THEY MUST BE RE-ERECTED ON THE SAME DAY TO THE SATISFACTION OF THE ENGINEER.

6. ANY BRANCHES THAT REQUIRE TRIMMING FOR EQUIPMENT CLEARANCE/CONSTRUCTION OPERATIONS SHALL BE DONE IN ACCORDANCE WITH THE IDOT DISTRICT ONE DETAIL "PRUNING FOR SAFETY AND EQUIPMENT CLEARANCE" AND SHALL BE CONSIDERED INCLUDED IN THE COST OF THE CONTRACT. ALL ADDITIONAL TREE TRIMMING MUST BE APPROVED BY THE ENGINEER.

7. ALL HOOKS AND LIFTING RINGS SHALL BE REMOVED AND CUT FLUSH ONCE THE STRUCTURE IS IN ITS FINAL LOCATION AND HAVE MORTAR INSTALLED TO COVER THE REBAR.

8. ALL MISHANDLED OR DAMAGED MATERIALS AS INSPECTED BY THE ENGINEER WILL BE MARKED WITH SPRAY PAINT. THE MARKED MATERIALS REMAIN THE PROPERTY OF THE CONTRACTOR. ALL MATERIALS MARKED ARE DEEMED UNSUITABLE FOR CONSTRUCTION BY THE ENGINEER AND MUST BE REMOVED FROM THE PROJECT SITE ON A WEEKLY BASIS AT NO COST TO THE VILLAGE.

9. BACKFILL IN TURF AREAS MAY UTILIZE THE EXISTING SUBGRADE. ANY SETTLEMENT WITHIN THE WARRANTY PERIOD AS DESCRIBED IN THE SPECIFICATIONS SHALL BE REPAIRED BY THE CONTRACTOR TO THE SATISFACTION OF THE ENGINEER. AT THE CONTRACTOR'S OPTION SAND MAY BE UTILIZED AS BACKFILL IN TURF AREAS TO PREVENT SETTLEMENT. THE SAND MUST BE KEPT 6" BELOW FINISHED GRADE FOR ACCEPTANCE OF TOPSOIL. ALL SAND UTILIZED FOR BACKFILLING IN THE PARKWAY AND ADDITIONAL TOPSOIL NEEDED SHALL NOT BE PAID FOR SEPARATELY BUT INCLUDED IN THE CONTRACT.

LEGEND:

EXISTING

	BUILDINGS		FIRE HYDRANT
R.O.W.	RIGHT-OF-WAY		POWER POLE
	ROADWAY PLAN-PAVED		CATCH BASIN
	ROADWAY PLAN-UNPAVED		LIGHT POLE
	CENTERLINE		MANHOLE
	EASEMENT		CATCH BASIN
	EDGE OF EXISTING PAVEMENT		INLET
x x x	FENCE		MISCELLANEOUS POST
T	TELEPHONE LINE	BIT	BITUMINOUS PAVEMENT
G	GAS MAIN	CONC	CONCRETE PAVEMENT
W	WATER MAIN		BENCHMARK
E	ELECTRIC LINE		BORINGS
	COMBINED SEWER		MONITORING WELL
	SANITARY SEWER		DECIDUOUS TREE
	STORM SEWER	S/L	STREET LIGHTS
	SUMMIT		VALVE VAULT
	DIRECTION OF DRAINAGE		VALVE BOX - VB
	TREELINE		
T/S	TRAFFIC SIGNAL		
℄	STREET CENTERLINE		
E	VAULT (Electric Utilities)		
	TELEPHONE POLE		
	SIGN (S)		

PROPOSED

	CONSTRUCTION LIMITS		ABANDON AND REMOVE UTILITY
x x x	FENCE		LINE STOP
	SILT FENCE		MANHOLE
FM	FORCE MAIN		VALVE VAULT
	COMBINED SEWER		VALVE BOX - VB
	SANITARY SEWER		TREE REMOVAL
	STORM SEWER		INLET FILTER
W	WATER MAIN	TP	TREE PROTECTION
	RESTRAINED PUSH-ON JOINT		

SOIL EROSION CONTROL NOTES:

1. ANY STORM WATER DRAINAGE STRUCTURES THAT HAVE THE POTENTIAL TO ACCEPT RUNOFF CONTAINING SUSPENDED SOIL PARTICLES FROM THE LIMITS OF CONSTRUCTION SHALL HAVE INLET FILTERS INSTALLED DIRECTLY ON OR UNDER THE GRATE OF THE DRAINAGE STRUCTURE.

2. IF APPLICABLE, SILT FENCE SHALL BE USED FOR PREVENTION OF SILT/SEDIMENT FROM LEAVING THE SITE. SILT FENCE SHALL BE MODIFIED AS NECESSARY TO ACCOMMODATE THE PHASING OF THE CONSTRUCTION AND REPAIRED/REPLACED AS BECOMES NECESSARY. SILT FENCE WILL REMAIN IN PLACE UNTIL ALL REMAINING ITEMS OF THE PROJECT HAVE BEEN COMPLETED.

3. EXISTING PAVEMENT SURFACES SHALL BE INSPECTED DAILY FOR SOIL DEBRIS AND SHALL BE CLEANED WHEN NECESSARY OR AS DIRECTED BY OWNER.

4. DISPOSAL OF DEBRIS SHALL BE THE CONTRACTOR'S RESPONSIBILITY AND WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE CONTRACT.

5. EROSION CONTROL PRACTICES SHALL BE CONSTRUCTED IN ACCORDANCE WITH ILLINOIS URBAN MANUAL, LATEST REVISION.

6. DEWATERING SHALL BE IN ACCORDANCE WITH SPECIFICATION 31 23 19. FILTRATION AND DISCHARGE LOCATION SHALL BE APPROVED BY THE VILLAGE.

7. CONTRACTOR SHALL INSPECT ALL SEDIMENTATION AND EROSION CONTROL MEASURES AT LEAST ONCE EVERY SEVEN (7) CALENDAR DAYS. CONTRACTOR SHALL CLEAN AND REPAIR ITEMS WITHIN 24 HOURS OF INSPECTION AS NECESSARY TO MAINTAIN EFFECTIVE SEDIMENTATION AND EROSION CONTROL MEASURES.

8. LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE SHALL BE INSPECTED FOR EVIDENCE OF OFFSITE SEDIMENT TRACKING. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CLEANING ANY ROAD OR MATERIAL THAT IS FROM THE PROJECT. THIS WILL BE DONE AT THE CLOSE OF EACH DAY OF WORK OR MORE FREQUENTLY AS FIELD CONDITIONS WARRANT.

9. PUMPS MAY BE USED AS BYPASS DEVICES, BUT IN NO CASE WILL THE WATER BE DIVERTED OUTSIDE OF THE PROJECT LIMIT. ALL PUMPED WATER SHALL BE FREE OF SILT. PUMPING MAY REQUIRE THE USE OF A SEDIMENT CONTAINMENT FILTER BAG AND OTHER SUPPLEMENTAL SEDIMENT CONTROL MEASURES.

10. CONCRETE WASHOUT FACILITIES SHALL BE MADE AVAILABLE IF NEEDED, AND PROPERLY MAINTAINED THROUGHOUT THE PROJECT.

11. PROPERLY MANAGE ALL MATERIAL, STORAGE AREAS, PORTABLE TOILETS, AND EQUIPMENT FUELING, CLEANING, AND MAINTENANCE AREAS TO ENSURE THESE AREAS ARE FREE OF SPILLS, LEAKS, OR OTHER POTENTIAL POLLUTANTS.

12. WASTE, CONSTRUCTION DEBRIS, AND BUILDING MATERIALS SHALL BE COLLECTED AND PLACED IN APPROVED RECEPTACLES.

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ENGINEERING CONSULTANT
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8725 W. Higgins Road, Suite 600, Chicago, IL 60631 | 773.775.4009 | www.ciorba.com

USER NAME = cbenton	DESIGNED - LAM	REVISED -	
	DRAWN - CLB	REVISED -	
PLOT SCALE =	CHECKED - LAM	REVISED -	
PLOT DATE = 1/16/2020	DATE - 1/16/2020	REVISED -	

VILLAGE OF BUFFALO GROVE

CHATHAM LIFT STATION RECONSTRUCTION
LEGEND AND GENERAL NOTES

SCALE: | SHEET NO. 2 OF 12 SHEETS | STA. | TO STA.

		COUNTY	TOTAL SHEETS	SHEET NO.
		COOK	12	2
	ILLINOIS			

MWRD GENERAL NOTES

A. REFERENCED SPECIFICATIONS

1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE APPLICABLE SECTIONS OF THE FOLLOWING, EXCEPT AS MODIFIED HEREIN OR ON THE PLANS:
   * STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (LATEST EDITION), BY THE ILLINOIS DEPARTMENT OF TRANSPORTATION (IDOT SS) FOR ALL IMPROVEMENTS EXCEPT SANITARY SEWER AND WATER MAIN CONSTRUCTION;
   * STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS, LATEST EDITION (SSWS) FOR SANITARY SEWER AND WATER MAIN CONSTRUCTION;
   * VILLAGE OF BUFFALO GROVE MUNICIPAL CODE;
   * THE METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO (MWRD) WATERSHED MANAGEMENT ORDINANCE AND TECHNICAL GUIDANCE MANUAL;
   * IN CASE OF CONFLICT BETWEEN THE APPLICABLE ORDINANCES NOTED, THE MORE STRINGENT SHALL TAKE PRECEDENCE AND SHALL CONTROL ALL CONSTRUCTION.
   * MWRD PERMIT #___________

B. NOTIFICATIONS

1. THE MWRD LOCAL SEWER SYSTEMS SECTION FIELD OFFICE MUST BE NOTIFIED AT LEAST TWO (2) WORKING DAYS PRIOR TO THE COMMENCEMENT OF ANY WORK (CALL 708-588-4055).

2. THE VILLAGE OF BUFFALO GROVE ENGINEERING DEPARTMENT AND PUBLIC MUST BE NOTIFIED AT LEAST 24 HOURS PRIOR TO THE START OF CONSTRUCTION AND PRIOR TO EACH PHASE OF WORK. CONTRACTOR SHALL DETERMINE ITEMS REQUIRING INSPECTION PRIOR TO START OF CONSTRUCTION OR EACH WORK PHASE.

3. THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES PRIOR TO BEGINNING CONSTRUCTION FOR THE EXACT LOCATIONS OF UTILITIES AND FOR THEIR PROTECTION DURING CONSTRUCTION. IF EXISTING UTILITIES ARE ENCOUNTERED THAT CONFLICT IN LOCATION WITH NEW CONSTRUCTION, IMMEDIATELY NOTIFY THE ENGINEER SO THAT THE CONFLICT CAN BE RESOLVED. CALL J.U.L.I.E. AT 1-800-892-0123.

C. GENERAL NOTES

1. MWRD FACILITIES SHALL BE LOCATED PRIOR TO PROCEEDING WITH ANY CONSTRUCTION WORK.

2. A MINIMUM HORIZONTAL / VERTICAL CLEARANCE OF 2 FEET SHALL BE MAINTAINED BETWEEN MWRD FACILITIES AND THE PROPOSED ELECTRICAL WORK.

3. NO HEAVY CONSTRUCTION EQUIPMENT AND DRIVING OF SHEET PILES IN THE VICINITY OF MWRD FACILITIES SHALL BE ALLOWED.

4. EXTRA CAUTION SHALL BE TAKEN FOR THE SAFETY AND INTEGRITY OF MWRD FACILITIES.

5. THE MWRD SHALL HAVE 24 HOUR-A-DAY UNRESTRICTED ACCESS TO ALL MWRD STRUCTURES/SEWERS/ FACILITIES.

6. NO DEBRIS SHALL ENTER MWRD STRUCTURES/SEWERS/FACILITIES/WATERWAYS.

7. ALL ACCESS HATCHES/MANHOLE COVERS ON MWRD STRUCTURES/MANHOLES WITHIN THE PROJECT AREA SHALL NOT BE BURIED/COVERED.

8. ALL ELEVATIONS SHOWN ON PLANS REFERENCE THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).

9. MWRD, THE MUNICIPALITY AND THE OWNER OR OWNER'S REPRESENTATIVE SHALL HAVE THE AUTHORITY TO INSPECT, APPROVE, AND REJECT THE CONSTRUCTION IMPROVEMENTS.

10. THE CONTRACTOR(S) SHALL INDEMNIFY THE OWNER, ENGINEER, MUNICIPALITY, MWRD, AND THEIR AGENTS, ETC., FROM ALL LIABILITY INVOLVED WITH THE CONSTRUCTION, INSTALLATION, OR TESTING OF THIS WORK ON THE PROJECT.

11. THE PROPOSED IMPROVEMENTS MUST BE CONSTRUCTED IN ACCORDANCE WITH THE ENGINEERING PLANS AS APPROVED BY MWRD AND THE MUNICIPALITY UNLESS CHANGES ARE APPROVED BY MWRD, THE MUNICIPALITY, OR AUTHORIZED AGENT. THE CONSTRUCTION DETAILS, AS PRESENTED ON THE PLANS, MUST BE FOLLOWED. PROPER CONSTRUCTION TECHNIQUES MUST BE FOLLOWED ON THE IMPROVEMENTS INDICATED ON THE PLANS.

12. THE LOCATION OF VARIOUS UNDERGROUND UTILITIES WHICH ARE SHOWN ON THE PLANS ARE FOR INFORMATION ONLY AND REPRESENT THE BEST KNOWLEDGE OF THE ENGINEER. VERIFY LOCATIONS AND ELEVATIONS PRIOR TO BEGINNING THE CONSTRUCTION OPERATIONS.

13. ANY EXISTING PAVEMENT, SIDEWALK, DRIVEWAY, ETC., DAMAGED DURING CONSTRUCTION OPERATIONS AND NOT CALLED FOR TO BE REMOVED SHALL BE REPLACED AT THE EXPENSE OF THE CONTRACTOR.

14. MATERIAL AND COMPACTION TESTING SHALL BE PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF THE MUNICIPALITY, MWRD, AND OWNER.

15. THE UNDERGROUND CONTRACTOR SHALL MAKE ALL NECESSARY ARRANGEMENTS TO NOTIFY ALL INSPECTION AGENCIES.

16. ALL NEW AND EXISTING UTILITY STRUCTURES ON SITE AND IN AREAS DISTURBED DURING CONSTRUCTION SHALL BE ADJUSTED TO FINISH GRADE PRIOR TO FINAL INSPECTION.

17. RECORD DRAWINGS SHALL BE KEPT BY THE CONTRACTOR AND SUBMITTED TO THE ENGINEER AS SOON AS UNDERGROUND IMPROVEMENTS ARE COMPLETED. FINAL PAYMENTS TO THE CONTRACTOR SHALL BE HELD UNTIL THEY ARE RECEIVED. ANY CHANGES IN LENGTH, LOCATION OR ALIGNMENT SHALL BE SHOWN IN RED. ALL WYES OR BENDS SHALL BE LOCATED FROM THE DOWNSTREAM MANHOLE. ALL VALVES, B-BOXES, TEES OR BENDS SHALL BE TIED TO A FIRE HYDRANT.

D. SANITARY SEWER

1. THE CONTRACTOR SHALL TAKE MEASURES TO PREVENT ANY POLLUTED WATER, SUCH AS GROUND AND SURFACE WATER, FROM ENTERING THE EXISTING SANITARY SEWERS.

2. A WATER-TIGHT PLUG SHALL BE INSTALLED IN THE DOWNSTREAM SEWER PIPE AT THE POINT OF SEWER CONNECTION PRIOR TO COMMENCING ANY SEWER CONSTRUCTION. THE PLUG SHALL REMAIN IN PLACE UNTIL REMOVAL IS AUTHORIZED BY THE MUNICIPALITY AND/OR MWRD AFTER THE SEWERS HAVE BEEN TESTED AND ACCEPTED.

3. DISCHARGING ANY UNPOLLUTED WATER INTO THE SANITARY SEWER SYSTEM FOR THE PURPOSE OF SEWER FLUSHING OF LINES FOR THE DEFLECTION TEST SHALL BE PROHIBITED WITHOUT PRIOR APPROVAL FROM THE MUNICIPALITY OR MWRD.

4. ALL SANITARY SEWER CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS (LATEST EDITION).

5. ALL FLOOR DRAINS SHALL DISCHARGE TO THE SANITARY SEWER SYSTEM.

6. ALL DOWNSPOUTS AND FOOTING DRAINS SHALL DISCHARGE TO THE STORM SEWER SYSTEM.

7. ALL SANITARY SEWER PIPE MATERIALS AND JOINTS (AND STORM SEWER PIPE MATERIALS AND JOINTS IN A COMBINED SEWER AREA) SHALL CONFORM TO THE FOLLOWING:

PIPE MATERIAL	PIPE SPECIFICATIONS	JOINT SPECIFICATIONS
VITRIFIED CLAY PIPE	ASTM C-700	ASTM C-425
REINFORCED CONCRETE SEWER PIPE	ASTM C-76	ASTM C-443
CAST IRON SOIL PIPE	ASTM A-74	ASTM C-564
DUCTILE IRON PIPE	ANSI A21.51	ANSI A21.11
POLYVINYL CHLORIDE (PVC) PIPE		
6-INCH TO 15-INCH DIAMETER SDR 26	ASTM D-3034	ASTM D-3212
18-INCH TO 27-INCH DIAMETER F/DY=46	ASTM F-679	ASTM D-3212
HIGH DENSITY POLYETHYLENE (HDPE)	ASTM D-3350	ASTM D-3261,F-2620 (HEAT FUSION)
	ASTM D-3035	ASTM D-3212,F-477 (GASKETED)
WATER MAIN QUALITY PVC		
4-INCH TO 36-INCH	ASTM D-2241	ASTM D-3139
4-INCH TO 12-INCH	AWWA C900	ASTM D-3139
14-INCH TO 48-INCH	AWWA C905	ASTM D-3139

THE FOLLOWING MATERIALS ARE ALLOWED ON A QUALIFIED BASIS SUBJECT TO DISTRICT REVIEW AND APPROVAL PRIOR TO PERMIT ISSUANCE. A SPECIAL CONDITION WILL BE ADDED TO THE PERMIT WHEN THE PIPE MATERIAL BELOW IS USED FOR SEWER CONSTRUCTION OR A CONNECTION IS MADE.

PIPE MATERIAL	PIPE SPECIFICATIONS	JOINT SPECIFICATIONS
POLYPROPYLENE (PP) PIPE		
12-INCH TO 24-INCH DOUBLE WALL	ASTM F-2736	D-3212, F-477
30-INCH TO 60-INCH TRIPLE WALL	ASTM F-2764	D3212, F-477

8. ALL SANITARY SEWER CONSTRUCTION (AND STORM SEWER CONSTRUCTION IN COMBINED SEWER AREAS), REQUIRES STONE BEDDING WITH STONE ¼ " TO 1" IN SIZE, WITH MINIMUM BEDDING THICKNESS EQUAL TO ¼ THE OUTSIDE DIAMETER OF THE SEWER PIPE, BUT NOT LESS THAN FOUR (4) INCHES NOR MORE THAN EIGHT (8) INCHES. MATERIAL SHALL BE CA-7, CA-11 OR CA-13 AND SHALL BE EXTENDED AT LEAST 12" ABOVE THE TOP OF THE PIPE WHEN USING PVC.

9. NON-SHEAR FLEXIBLE-TYPE COUPLINGS SHALL BE USED IN THE CONNECTION OF SEWER PIPES OF DISSIMILAR PIPE MATERIALS.

10. ALL MANHOLES SHALL BE PROVIDED WITH BOLTED, WATERTIGHT COVERS. SANITARY LIDS SHALL BE CONSTRUCTED WITH A CONCEALED PICKHOLE AND WATERTIGHT GASKET WITH THE WORD "SANITARY" CAST INTO THE LID.

11. WHEN CONNECTING TO AN EXISTING SEWER MAIN BY MEANS OTHER THAN AN EXISTING WYE, TEE, OR AN EXISTING MANHOLE, ONE OF THE FOLLOWING METHODS SHALL BE USED:
    a) A CIRCULAR SAW-CUT OF SEWER MAIN BY PROPER TOOLS ("SHEWER-TAP" MACHINE OR SIMILAR) AND PROPER INSTALLATION OF HUBWYE SADDLE OR HUB-TEE SADDLE.
    b) REMOVE AN ENTIRE SECTION OF PIPE (BREAKING ONLY THE TOP OF ONE BELL) AND REPLACE WITH A WYE OR TEE BRANCH SECTION.
    c) WITH PIPE CUTTER, NEATLY AND ACCURATELY CUT OUT DESIRED LENGTH OF PIPE FOR INSERTION OF PROPER FITTING, USING "BAND SEAL" OR SIMILAR COUPLINGS TO HOLD IT FIRMLY IN PLACE.

12. WHENEVER A SANITARY/COMBINED SEWER CROSSES UNDER A WATERMAIN, THE MINIMUM VERTICAL DISTANCE FROM THE TOP OF THE SEWER TO THE BOTTOM OF THE WATERMAIN SHALL BE 18 INCHES. FURTHERMORE, A MINIMUM HORIZONTAL DISTANCE OF 10 FEET BETWEEN SANITARY/COMBINED SEWERS AND WATERMAINS SHALL BE MAINTAINED UNLESS: THE SEWER IS LAID IN A SEPARATE TRENCH, KEEPING A MINIMUM 18" VERTICAL SEPARATION; OR THE SEWER IS LAID IN THE SAME TRENCH WITH THE WATERMAIN LOCATED AT THE OPPOSITE SIDE ON A BENCH OF UNDISTURBED EARTH, KEEPING A MINIMUM 18" VERTICAL SEPARATION. IF EITHER THE VERTICAL OR HORIZONTAL DISTANCES DESCRIBED CANNOT BE MAINTAINED, OR THE SEWER CROSSES ABOVE THE WATER MAIN, THE SEWER SHALL BE CONSTRUCTED TO WATER MAIN STANDARDS OR IT SHALL BE ENCASED WITH A WATER MAIN QUALITY CARRIER PIPE WITH THE ENDS SEALED.

13. ALL EXISTING SEPTIC SYSTEMS SHALL BE ABANDONED. ABANDONED TANKS SHALL BE FILLED WITH GRANULAR MATERIAL OR REMOVED.

14. ALL SANITARY MANHOLES, (AND STORM MANHOLES IN COMBINED SEWER AREAS), SHALL HAVE A MINIMUM INSIDE DIAMETER OF 48 INCHES, AND SHALL BE CAST IN PLACE OR PRE-CAST REINFORCED CONCRETE.

15. ALL SANITARY MANHOLES, (AND STORM MANHOLES IN COMBINED SEWER AREAS), SHALL HAVE PRECAST "RUBBER BOOTS" THAT CONFORM TO ASTM C-923 FOR ALL PIPE CONNECTIONS. PRECAST SECTIONS SHALL CONSIST OF MODIFIED GROOVE TONGUE AND RUBBER GASKET TYPE JOINTS.

16. ALL ABANDONED SANITARY SEWERS SHALL BE PLUGGED AT BOTH ENDS WITH AT LEAST 2 FEET LONG NON-SHRINK CONCRETE OR MORTAR PLUG.

17. EXCEPT FOR FOUNDATION/FOOTING DRAINS PROVIDED TO PROTECT BUILDINGS, OR PERFORATED PIPES ASSOCIATED WITH VOLUME CONTROL FACILITIES, DRAIN TILES/FIELD TILES/UNDERDRAINS/PERFORATED PIPES ARE NOT ALLOWED TO BE CONNECTED TO OR TRIBUTARY TO COMBINED SEWERS, SANITARY SEWERS, OR STORM SEWERS TRIBUTARY TO COMBINED SEWERS IN COMBINED SEWER AREAS. CONSTRUCTION OF NEW FACILITIES OF THIS TYPE IS PROHIBITED; AND ALL EXISTING DRAIN TILES AND PERFORATED PIPES ENCOUNTERED WITHIN THE PROJECT AREA SHALL BE PLUGGED OR REMOVED, AND SHALL NOT BE CONNECTED TO COMBINED SEWERS, SANITARY SEWERS, OR STORM SEWERS TRIBUTARY TO COMBINED SEWERS.

18. A BACKFLOW PREVENTER IS REQUIRED FOR ALL DETENTION BASINS TRIBUTARY TO COMBINED SEWERS. REQUIRED BACKFLOW PREVENTERS SHALL BE INSPECTED AND EXERCISED ANNUALLY BY THE PROPERTY OWNER TO ENSURE PROPER OPERATION, AND ANY NECESSARY MAINTENANCES SHALL BE PERFORMED TO ENSURE FUNCTIONALITY. IN THE EVENT OF A SEWER SURCHARGE INTO AN OPEN DETENTION BASIN TRIBUTARY TO COMBINED SEWERS, THE PERMITTEE SHALL ENSURE THAT CLEAN UP AND WASH OUT OF SEWAGE TAKES PLACE WITHIN 48 HOURS OF THE STORM EVENT.

E. EROSION AND SEDIMENT CONTROL

1. THE CONTRACTOR SHALL INSTALL THE EROSION AND SEDIMENT CONTROL DEVICES AS SHOWN ON THE APPROVED EROSION AND SEDIMENT CONTROL PLAN.

2. EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE FUNCTIONAL PRIOR TO HYDROLOGIC DISTURBANCE OF THE SITE.

3. ALL DESIGN CRITERIA, SPECIFICATIONS, AND INSTALLATION OF EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE IN ACCORDANCE WITH THE ILLINOIS URBAN MANUAL.

4. A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN SHALL BE MAINTAINED ON THE SITE AT ALL TIMES.

5. INSPECTIONS AND DOCUMENTATION SHALL BE PERFORMED, AT A MINIMUM:
   a) UPON COMPLETION OF INITIAL EROSION AND SEDIMENT CONTROL MEASURES, PRIOR TO ANY SOIL DISTURBANCE.
   b) ONCE EVERY SEVEN (7) CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A STORM EVENT WITH GREATER THAN 0.5 INCH OF RAINFALL OR LIQUID EQUIVALENT PRECIPITATION.

6. SOIL DISTURBANCE SHALL BE CONDUCTED IN SUCH A MANNER AS TO MINIMIZE EROSION. IF STRIPPING, CLEARING, GRADING, OR LANDSCAPING ARE TO BE DONE IN PHASES, THE CO-PERMITTEE SHALL PLAN FOR APPROPRIATE SOIL EROSION AND SEDIMENT CONTROL MEASURES.

7. A STABILIZED MAT OF CRUSHED STONE MEETING THE STANDARDS OF THE ILLINOIS URBAN MANUAL SHALL BE INSTALLED AT ANY POINT WHERE TRAFFIC WILL BE ENTERING OR LEAVING A CONSTRUCTION SITE. SEDIMENT OR SOIL REACHING AN IMPROVED PUBLIC RIGHT-OF-WAY, STREET, ALLEY OR PARKING AREA SHALL BE REMOVED BY SCRAPING OR STREET CLEANING AS ACCUMULATIONS WARRANT AND TRANSPORTED TO A CONTROLLED SEDIMENT DISPOSAL AREA.

8. CONCRETE WASHOUT FACILITIES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE ILLINOIS URBAN MANUAL AND SHALL BE INSTALLED PRIOR TO ANY ON SITE CONSTRUCTION ACTIVITIES INVOLVING CONCRETE.

9. MORTAR WASHOUT FACILITIES SHALL BE CONSTRUCTED IN ADDITION TO CONCRETE WASHOUT FACILITIES FOR ANY BRICK AND MORTAR BUILDING ENVELOPE CONSTRUCTION ACTIVITIES.

10. TEMPORARY DIVERSIONS SHALL BE CONSTRUCTED AS NECESSARY TO DIRECT ALL RUNOFF FROM HYDROLOGICALLY DISTURBED AREAS TO AN APPROPRIATE SEDIMENT TRAP OR BASIN. VOLUME CONTROL FACILITIES SHALL NOT BE USED AS TEMPORARY SEDIMENT BASINS.

12. DISTURBED AREAS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED SHALL BE STABILIZED WITH TEMPORARY OR PERMANENT MEASURES WITHIN SEVEN (7) DAYS.

13. ALL FLOOD PROTECTION AREAS AND VOLUME CONTROL FACILITIES SHALL, AT A MINIMUM, BE PROTECTED WITH A DOUBLE-ROW OF SILT FENCE (OR EQUIVALENT).

14. VOLUME CONTROL FACILITIES SHALL NOT BE CONSTRUCTED UNTIL ALL OF THE CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED.

15. SOIL STOCKPILES SHALL, AT A MINIMUM, BE PROTECTED WITH PERIMETER SEDIMENT CONTROLS. SOIL STOCKPILES SHALL NOT BE PLACED IN FLOOD PROTECTION AREAS OR THEIR BUFFERS.

16. EARTHEN EMBANKMENT SIDE SLOPES SHALL BE STABILIZED WITH APPROPRIATE EROSION CONTROL BLANKET.

17. STORM SEWERS THAT ARE OR WILL BE FUNCTIONING DURING CONSTRUCTION SHALL BE PROTECTED BY APPROPRIATE SEDIMENT CONTROL MEASURES.

18. THE CONTRACTOR SHALL EITHER REMOVE OR REPLACE ANY EXISTING DRAIN TILES AND INCORPORATE THEM INTO THE DRAINAGE PLAN FOR THE DEVELOPMENT. DRAIN TILES CANNOT BE TRIBUTARY TO A SANITARY OR COMBINED SEWER. DRAIN TILES ALLOWED IN COMBINED SEWER AREA FOR GREEN INFRASTRUCTURE PRACTICES.

19. IF DEWATERING SERVICES ARE USED, ADJOINING PROPERTIES AND DISCHARGE LOCATIONS SHALL BE PROTECTED FROM EROSION AND SEDIMENTATION. DEWATERING SYSTEMS SHOULD BE INSPECTED DAILY DURING OPERATIONAL PERIODS. THE SITE INSPECTOR MUST BE PRESENT AT THE COMMENCEMENT OF DEWATERING ACTIVITIES.

20. THE CONTRCTOR SHALL BE RESPONSIBLE FOR TRENCH DEWATERING AND EXCAVATION FOR THE INSTALLATION OF SANITARY SEWERS, STORM SEWERS, WATERMAINS AS WELL AS THEIR SERVICES AND OTHER APPURTENANCES. ANY TRENCH DEWATERING, WHICH CONTAINS SEDIMENT SHALL PASS THROUGH A SEDIMENT SETTLING POND OR EQUALLY EFFECTIVE SEDIMENT CONTROL DEVICE. ALTERNATIVES MAY INCLUDE DEWATERING INTO A SUMP PIT, FILTER BAG OR EXISTING VEGETATED UPSLOPE AREA. SEDIMENT LADEN WATERS SHALL NOT BE DISCHARGE TO WATERWAYS, FLOOD PROTECTION AREAS OR THE COMBINED SEWER SYSTEM.

21. ALL PERMANENT EROSION CONTROL PRACTICES SHALL BE INITIATED WITHIN SEVEN (7) DAYS FOLLOWING THE COMPLETION OF SOIL DISTURBING ACTIVITIES.

22. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE MAINTAINED AND REPAIRED AS NEEDED ON A YEAR-ROUND BASIS DURING CONSTRUCTION AND ANY PERIODS OF CONSTRUCTION SHUTDOWN UNTIL PERMANENT STABILIZATION IS ACHIEVED.

23. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN THIRTY (30) DAYS AFTER PERMANENT SITE STABILIZATION.

24. THE EROSION AND SEDIMENT CONTROL MEASURES SHOWN ON THE PLANS ARE THE MINIMUM REQUIREMENTS. ADDITIONAL MEASURES MAY BE REQUIRED, AS DIRECTED BY THE ENGINEER, SITE INSPECTOR, OR MWRD.

PERPETUAL MAINTENANCE NOTES

Planned annual lift station routine maintenance should include the following upon completion of construction:

A. WEEKLY

1. Visually inspect the station for vandalism and security.
2. Record pump hours for each pump.
3. Review control panel alarm history.
4. Run each pump in hand mode and observe level control for proper operation.
5. Visually inspect standby generator for fuel level and operation readiness.

B. MONTHLY

1. Open up wet well and visually inspect the pumping of each pump.
2. Completely pump down the wet well to its lowest point and make a visual inspection.
3. Check wet well floats and transducer for rage build up, clean as needed.
4. Exercise generator.

C. QUARTERLY

1. Clean grit and grease from the wet well using a vac truck.
2. Operate generator under load for 15 minutes by tripping station power. Observe for successful transfer to generator power.
3. Operate emergency portable generator.

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ENGINEERING CONSULTANT	USER NAME = cbenton	DESIGNED - LAM	REVISED -
CiorbaGroup		DRAWN - CLB	REVISED -
	PLOT SCALE =	CHECKED - LAM	REVISED -
8725 W. Higgins Road, Suite 600, Chicago, IL 60631 | 773.775.4009 | www.ciorba.com	PLOT DATE = 1/14/2020	DATE - 1/16/2020	REVISED -

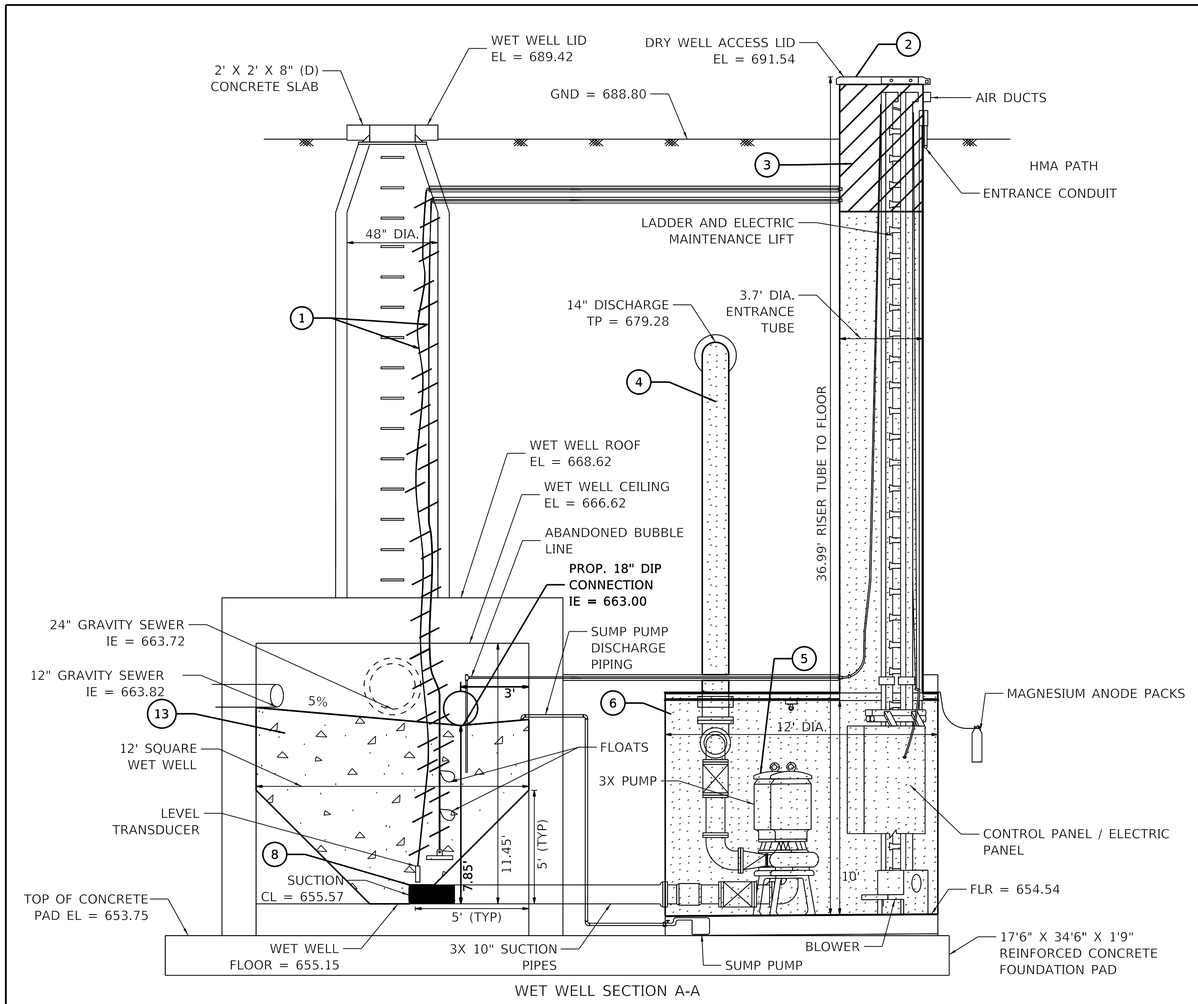
VILLAGE OF BUFFALO GROVE

CHATHAM LIFT STATION RECONSTRUCTION
MWRD AND MAINTENANCE NOTES

SCALE: | SHEET NO. 3 OF 12 SHEETS | STA. TO STA.

COUNTY	TOTAL SHEETS	SHEET NO.
COOK	12	3

ILLINOIS

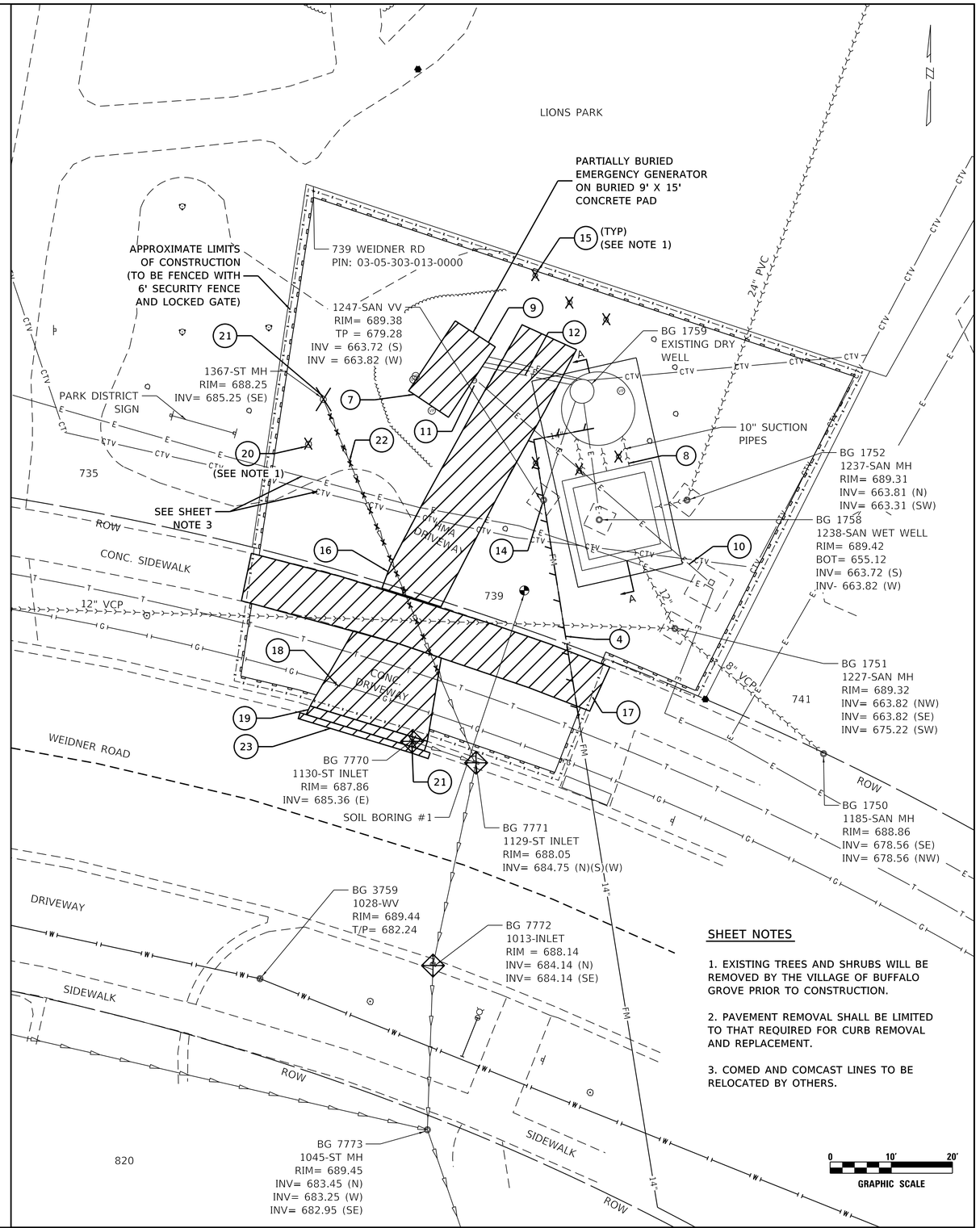


WET WELL SECTION A-A

SCALE: 1" = 40"

DEMOLITION SCHEDULE

1. REMOVE PRESSURE TRANSDUCER AND FLOAT SYSTEM COMPONENTS. PLUG WET WELL PENETRATIONS WITH NON-SHRINK GROUT.
2. REMOVE DRY WELL ACCESS LID AND RETURN TO THE VILLAGE.
3. REMOVE EXISTING DRY WELL ACCESS SHAFT, LADDER, AND HATCH TO A MINIMUM DEPTH OF 5-FEET BELOW GRADE.
4. ABANDON EXISTING 14" FORCE MAIN WITH FLOWABLE FILL BETWEEN WET WELL AND NEW FORCE MAIN CONNECTION POINT (APPROXIMATELY 55' VERTICAL AND HORIZONTAL).
5. REMOVE EXISTING DRY WELL EQUIPMENT (PUMPS, BLOWER, ELECTRICAL PANEL, SUMP PUMP, DEHUMIDIFIER, MAINTENANCE LIFT, ETC.).
6. BACK FILL EXISTING DRY WELL, ACCESS RISER, AND FORCE MAIN WITH FLOWABLE FILL.
7. REMOVE AND DISPOSE OF EXISTING GENERATOR. REMOVE EXISTING PAD.
8. ABANDON EXISTING SUCTION LINES (x3). INSTALL 2' NON-SHRINK CONCRETE / MORTAR PLUG.
9. REMOVE AUTOMATIC TRANSFER SWITCH LOCATED INSIDE GENERATOR ENCLOSURE.
10. ABANDON EXISTING ELECTRIC SERVICE.
11. REMOVE ELECTRICAL SERVICE METER AND EMERGENCY CUTOFF SWITCH. CONDUCTORS FEEDING METER SHALL ALSO BE REMOVED AFTER NEW COMED SERVICE IS ENERGIZED BY COMED.
12. ABANDON EXISTING DATA SERVICE AFTER DRY WELL IS ABANDONED.
13. FILL BOTTOM 7.85' OF EXISTING WET WELL WITH CONCRETE.
14. REMOVE EXISTING METER VAULT INCLUDING SUMP PUMP AND DOPPLER BAND METER.
15. REMOVE EXISTING SHRUBS (x6). [BY OTHERS]
16. 55 S.Y. PAVEMENT REMOVAL.
17. 470 S.F. SIDEWALK REMOVAL.
18. 27 S.Y. DRIVEWAY REMOVAL.
19. 22 L.F. CURB AND GUTTER REMOVAL.
20. REMOVE EXISTING TREE. [BY OTHERS]
21. DRAINAGE STRUCTURE REMOVAL.
22. 49 L.F. 8" STORM SEWER REMOVAL.
23. PAVEMENT REMOVAL (SEE SHEET NOTE 2).



SHEET NOTES

1. EXISTING TREES AND SHRUBS WILL BE REMOVED BY THE VILLAGE OF BUFFALO GROVE PRIOR TO CONSTRUCTION.
2. PAVEMENT REMOVAL SHALL BE LIMITED TO THAT REQUIRED FOR CURB REMOVAL AND REPLACEMENT.
3. COMED AND COMCAST LINES TO BE RELOCATED BY OTHERS.

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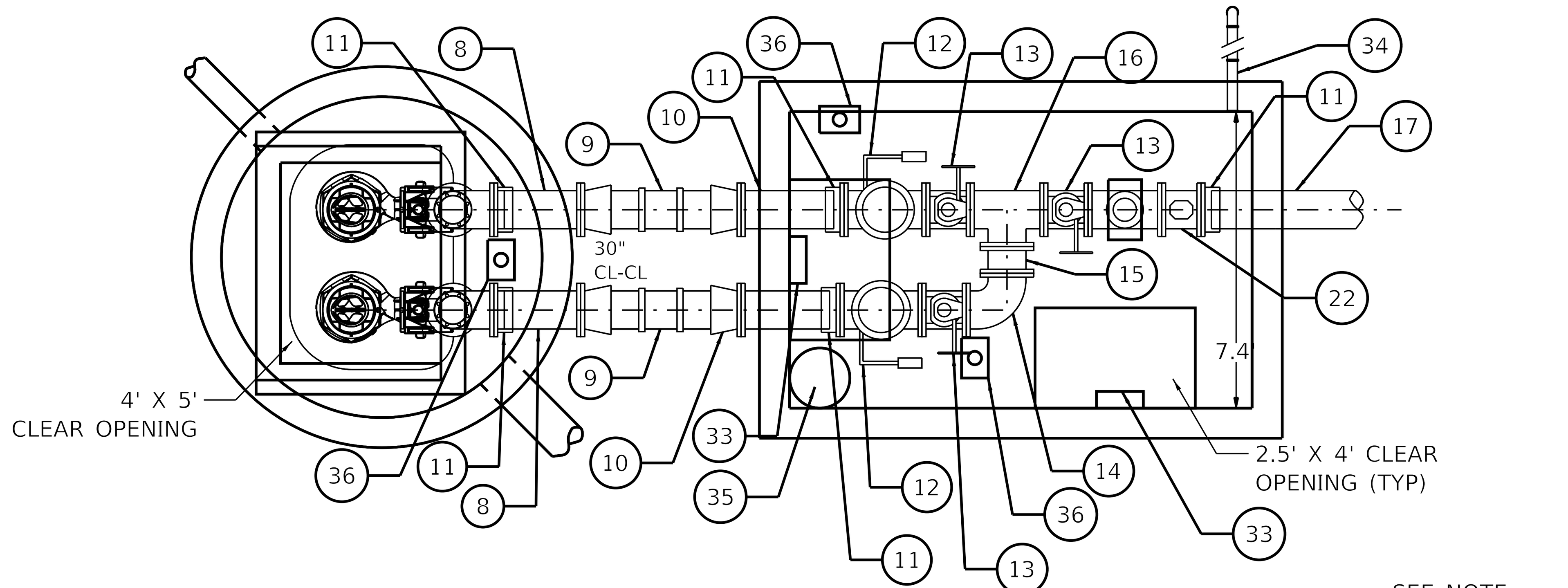
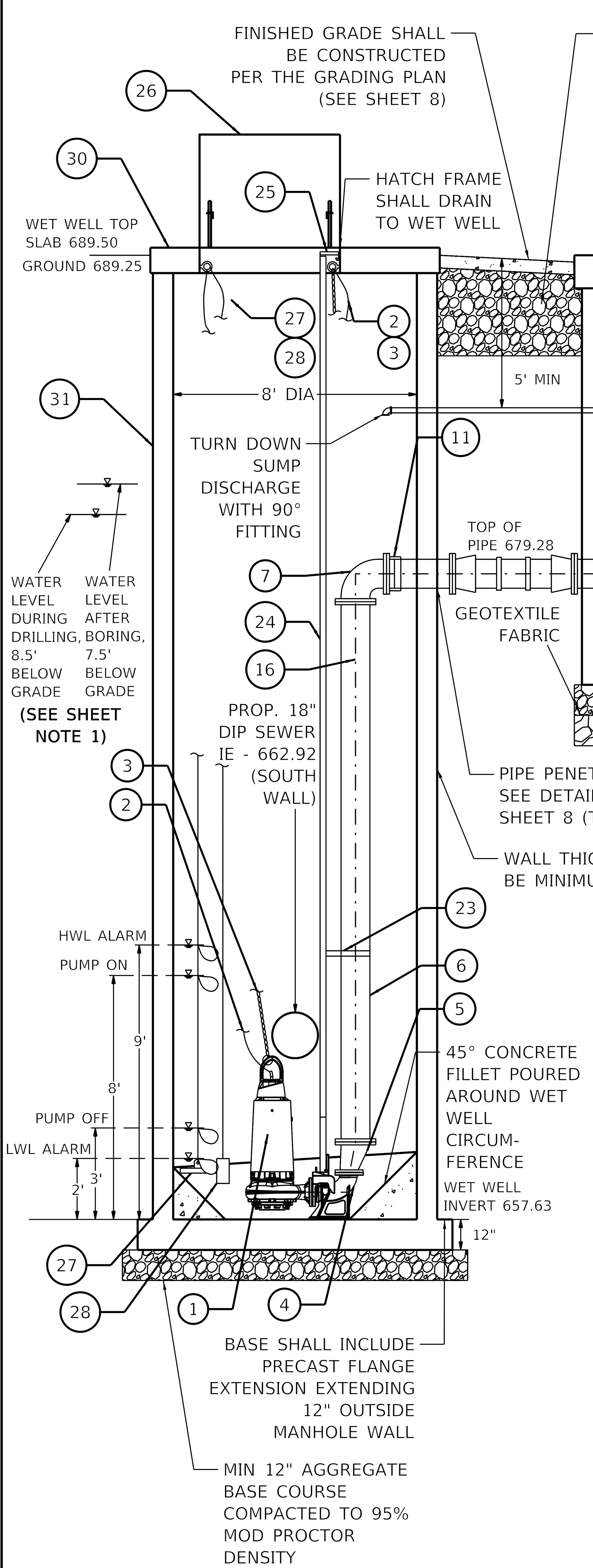
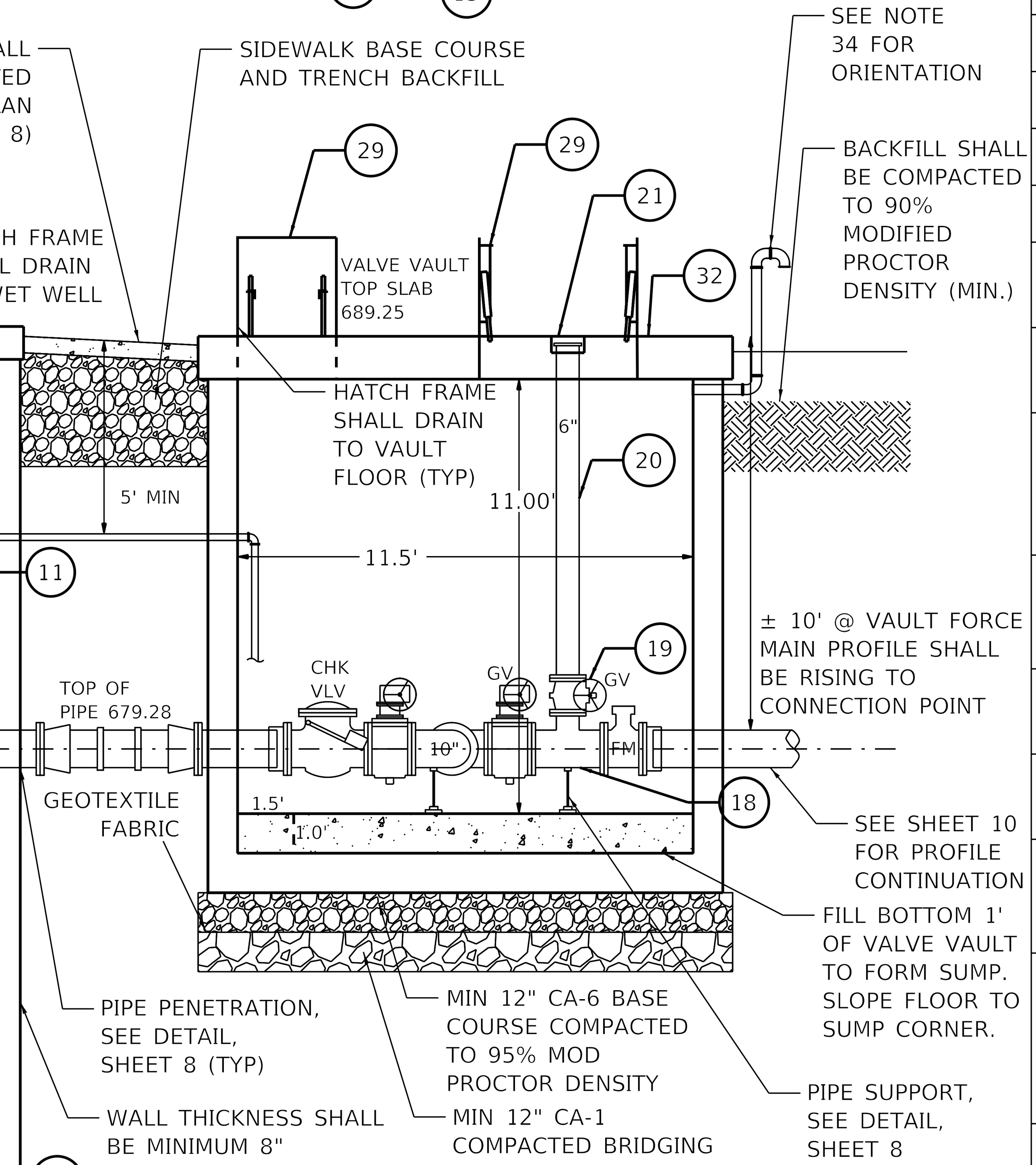
ENGINEERING CONSULTANT					
CiorbaGroup	USER NAME = WaterResources	DESIGNED - LAM	REVISED -	VILLAGE OF BUFFALO GROVE	CHATHAM LIFT STATION RECONSTRUCTION
8725 W. Higgins Road, Suite 600, Chicago, IL 60631 | 773.775.4009 | www.ciorba.com		DRAWN - CLB	REVISED -		EXISTING CONDITION AND DEMOLITION PLAN
	PLOT SCALE =	CHECKED - LAM	REVISED -		SCALE: | SHEET NO. 4 OF 12 SHEETS | STA. TO STA.
	PLOT DATE = 2/10/2020	DATE - 1/16/2020	REVISED -		

COUNTY	TOTAL SHEETS	SHEET NO.
COOK	12	4
ILLINOIS		





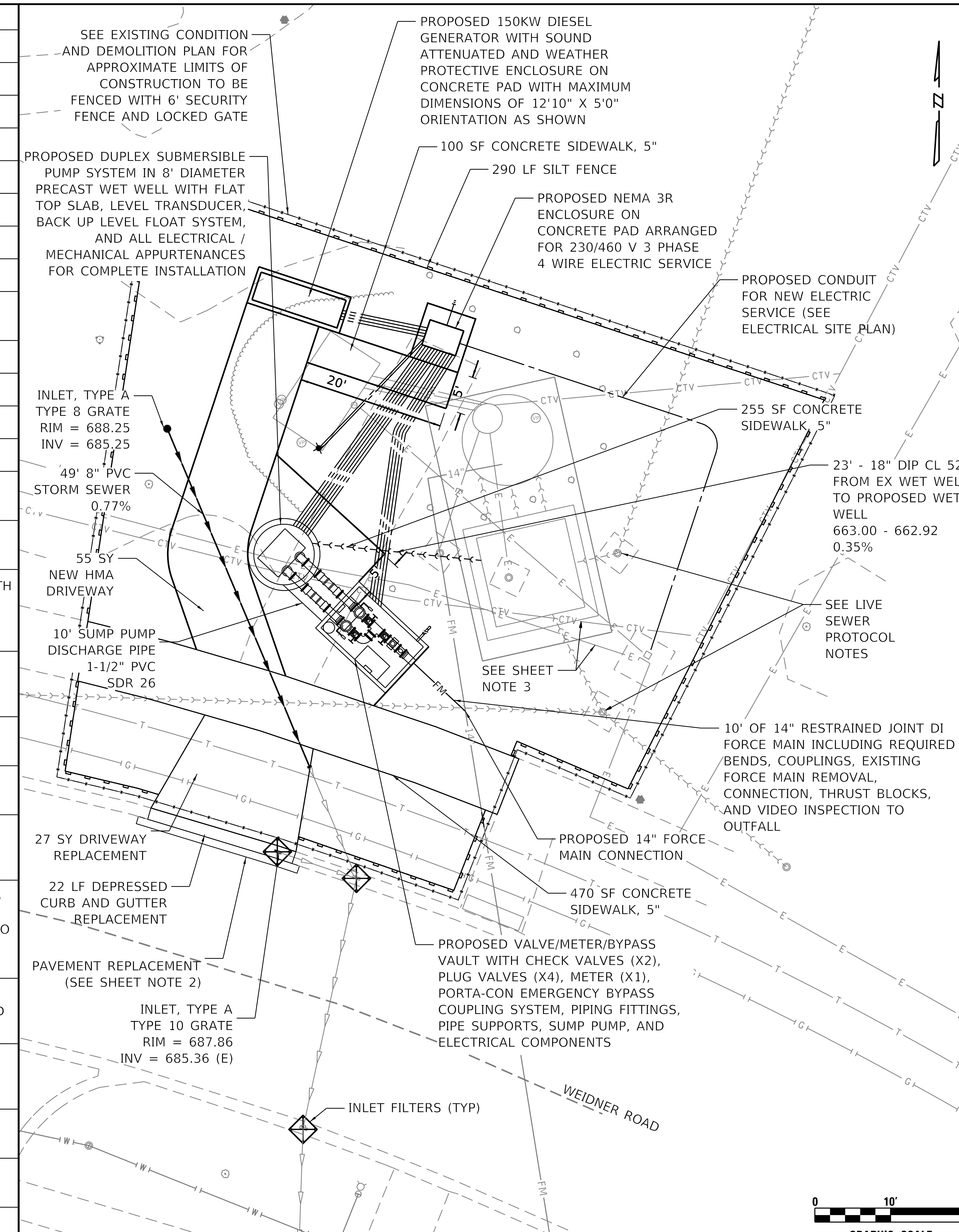


IMPROVEMENTS SCHEDULE

1	2X SUBMERSIBLE RAW SEWAGE PUMP WITH CENTER DISCHARGE, 8" ABS XFP 155J-CB2 OR APPROVED EQUAL.
2	POWER AND CONTROL CABLES TO PUMPING UNIT, SUPPORT CABLES WITH STAINLESS STEEL KELLEMS GRIPS HUNG FROM SUPPORT. LOOP EXCESS PUMP CABLE (3' MIN TO 6' MAX LENGTH) OVER SUPPORT. TIE POWER AND CONTROL CABLES TOGETHER PER MANUFACTURERS RECOMMENDATIONS.
3	316 STAINLESS STEEL LIFTING CHAIN LOOPED THROUGH PUMP LIFTING ASSEMBLY AND SECURED WITH 316 STAINLESS STEEL LOCKING CLEVIS. PROVIDE CONNECTOR AT END OF CHAIN TO CREATE LOOP AND HANG FROM CHAIN SUPPORT. CHAIN SHALL HAVE A MINIMUM RATED CAPACITY OF 3 TIMES PUMPING UNIT WEIGHT.
4	PUMP DISCHARGE ELBOW FURNISHED BY PUMP MANUFACTURER. ANCHOR ELBOW WITH STAINLESS STEEL ANCHOR BOLTS (CAST-IN-PLACE OR DRILL AND EPOXY). ANCHOR BOLT SIZE, NUMBER, AND EMBEDMENT PER PUMP MANUFACTURER.
5	6" X 10" DI FLANGED ECCENTRIC REDUCER.
6	10" FLG X FLG DI SPOOL, 18' (LENGTH TO BE VERIFIED IN FIELD).

IMPROVEMENTS SCHEDULE (CONT.)

7	10" DI FLANGED ELBOW.
8	10" FLG X FLG DI SPOOL, 2'-2" (LENGTH TO BE VERIFIED IN FIELD).
9	10" FLEXIBLE EXPANSION JOINT, EBAA IRON OR APPROVED EQUAL.
10	10" FLG X PE DI SPOOL, 2'-0"(LENGTH TO BE VERIFIED IN FIELD).
11	10" RESTRAINED MJ X FLG ADAPTER.
12	10" SWING CHECK VALVE WITH OUTSIDE LEVEL AND WEIGHT.
13	10" PLUG VALVE WITH HANDWHEEL ACTUATOR.
14	10" DI 90° FLANGED ELBOW ON PIPE SUPPORT.
15	10" FLG X FLG DI PIPE SPOOL , 0'-8" (LENGTH TO BE VERIFIED IN FIELD) ON PIPE SUPPORT.
16	10" DI FLANGED EQUAL TEE ON PIPE SUPPORT.
17	10" PE X PE PIPE SPOOL TO FORCE MAIN FITTING.
18	10" X 6" DI FLANGED TEE ON PIPE SUPPORT.
19	6" PLUG VALVE ON BYPASS LINE WITH HANDWHEEL ACTUATOR.
20	6" DI BYPASS PIPE SPOOL, 8'-9" (LENGTH TO BE VERIFIED IN FIELD) WITH FLANGED END AND PORTA-CON BYPASS CONNECTION.
21	PORTA-CON EMERGENCY BYPASS PUMP COUPLING SYSTEM, PART# PC106, AS MANUFACTURED BY PRECISION SYSTEMS.
22	10" MAGNETIC FLOW METER. FURNISH FLANGED ND SPOOL (LENGTH TO MATCH LENGTH OF FLOW METER) TO BE INSTALLED WHEN METER IS REMOVED FOR SERVICE. CONTRACTOR TO SET PIPE SPOOL IN PLACE TO VERIFY FIT, THEN REPLACE WITH FLOW METER.
23	INTERMEDIATE GUIDE RAIL SUPPORT, 316 SS, SPACED VERTICALLY AT 8' INTERVALS, ATTACH TO PIPE PER MANUFACTURERS SPECIFICATION.
24	SCHEDULE 40 316 STAINLESS STEEL PIPE GUIDE RAILS FOR SUBMERSIBLE PUMP, PER MANUFACTURERS SPECIFICATIONS.
25	UPPER GUIDE RAIL SUPPORT ALL 316 STAINLESS STEEL. ATTACH TO CONCRETE WITH 316 STAINLESS STEEL EPOXY ANCHORS.
26	SPRING ASSIST DOUBLE LEAF ACCESS HATCH, ALUMINUM WITH ALUMINUM DIAMOND PLATE AND FALL PROTECTION PER PROJECT SPECIFICATIONS. MINIMUM CLEAR OPENING SHALL BE 3.7' X 5.3'.
27	1/4" DIAMETER, 304 STAINLESS STEEL WIRE ROPE ATTACHED TO 15 LB PVC COATED WEIGHT. LOCATE APPROXIMATELY 12" FROM BOTTOM OF WET WELL. ATTACH BACKUP FLOAT SWITCH CABLES TO WIRE ROPE AT LEVELS SPECIFIED WITH NYLON TIES. PROVIDE CLOSED LOOP AT TOP OF WIRE ROPE FOR SUPPORT HOOK.
28	WATER LEVEL PRESSURE TRANSDUCER, 304 STAINLESS STEEL WIRE ROPE ATTACHED TO 15 LB PVC COATED WEIGHT. PROVIDE CLOSED LOOP AT TOP OF WIRE ROPE FOR SUPPORT HOOK.
29	SPRING ASSIST ACCESS HATCH, ALUMINUM WITH ALUMINUM DIAMOND PLATE PER PROJECT SPECIFICATIONS. MINIMUM CLEAR OPENING SHALL BE 2.5' X 4'.
30	NEW HS-20 LOAD RATED 10" PRECAST WET WELL FLAT TOP SLAB. CASTING SHALL BE COORDINATED WITH PUMP SUPPLIER.
31	NEW 8' DIAMETER WET WELL WITH EXTERIOR ASPHALT EMULSION COATING.
32	NEW VALVE VAULT PER DETAIL, SHEET 10.
33	14" WIDE COPOLYMER PLASTIC STEPS WITH CONTINUOUS 1/2 INCH STEEL REINFORCEMENT, SPACED VERTICAL AT 16" FROM HATCH VAULT TO FLOOR.
34	3" THREADED GALVANIZED STEEL VENT WITH LONG RADIUS 90 DEGREE FITTINGS FOR GOOSENECK DOWNWARD TURNING OUTLET AND STAINLESS STEEL INSECT SCREEN 2-FEET ABOVE FINISHED GRADE. SAND, CLEAN, AND APPLY PRIMER AND TOP COAT OF BLACK RUST PREVENTION PAINT.
35	CAST IRON, ANTI CLOG VORTEX IMPELLER SUMP PUMP WITH 1-1/2" DISCHARGE PIPING TO WET WELL.
36	3X 4" FLUSH MOUNT DAVIT AND HEAVY DUTY SLEEVE CAP CAST INTO CONCRETE SLAB



SHEET NOTES

1. DEWATERING SHALL BE IN ACCORDANCE WITH SPECIFICATION 31 23 19. FILTRATION AND DISCHARGE LOCATION SHALL BE APPROVED BY THE VILLAGE.
2. PAVEMENT REPLACEMENT DUE TO CURB RECONSTRUCTION SHALL BE INCLUDED IN THE COST OF THE CURB AND SHALL MATCH THE DEPTH OF THE GUTTER FLAG ON A PREPARED AGGREGATE BASE COURSE.
3. COMED AND COMCAST LINES TO BE RELOCATED BY OTHERS.

LIVE SEWER PROTOCOL NOTES

1. THE CONTRACTOR SHALL SUBMIT A BYPASSING PUMP PLAN TO THE VILLAGE FOR APPROVAL PRIOR TO MOBILIZATION.
2. THE VILLAGE HAS THE ABILITY TO TEMPORARILY SURCHARGE THE UPSTREAM SEWER SYSTEMS FOR AN APPROXIMATE MAXIMUM OF 4 HOURS. TEMPORARY SURCHARGE TIMES SHALL BE PREVIOUSLY APPROVED BY THE VILLAGE AND SHALL NOT OCCUR 2 DAYS AFTER RAIN EVENT.

PUMP OPERATING NOTE

BOTH PUMPS MAY NOT BE OPERATING AT THE SAME TIME. MWRD PERSONNEL SHALL HAVE UNRESTRICTED ACCESS TO THE LIFT STATION FOR RANDOM UNANNOUNCED INSPECTION AND TESTING.

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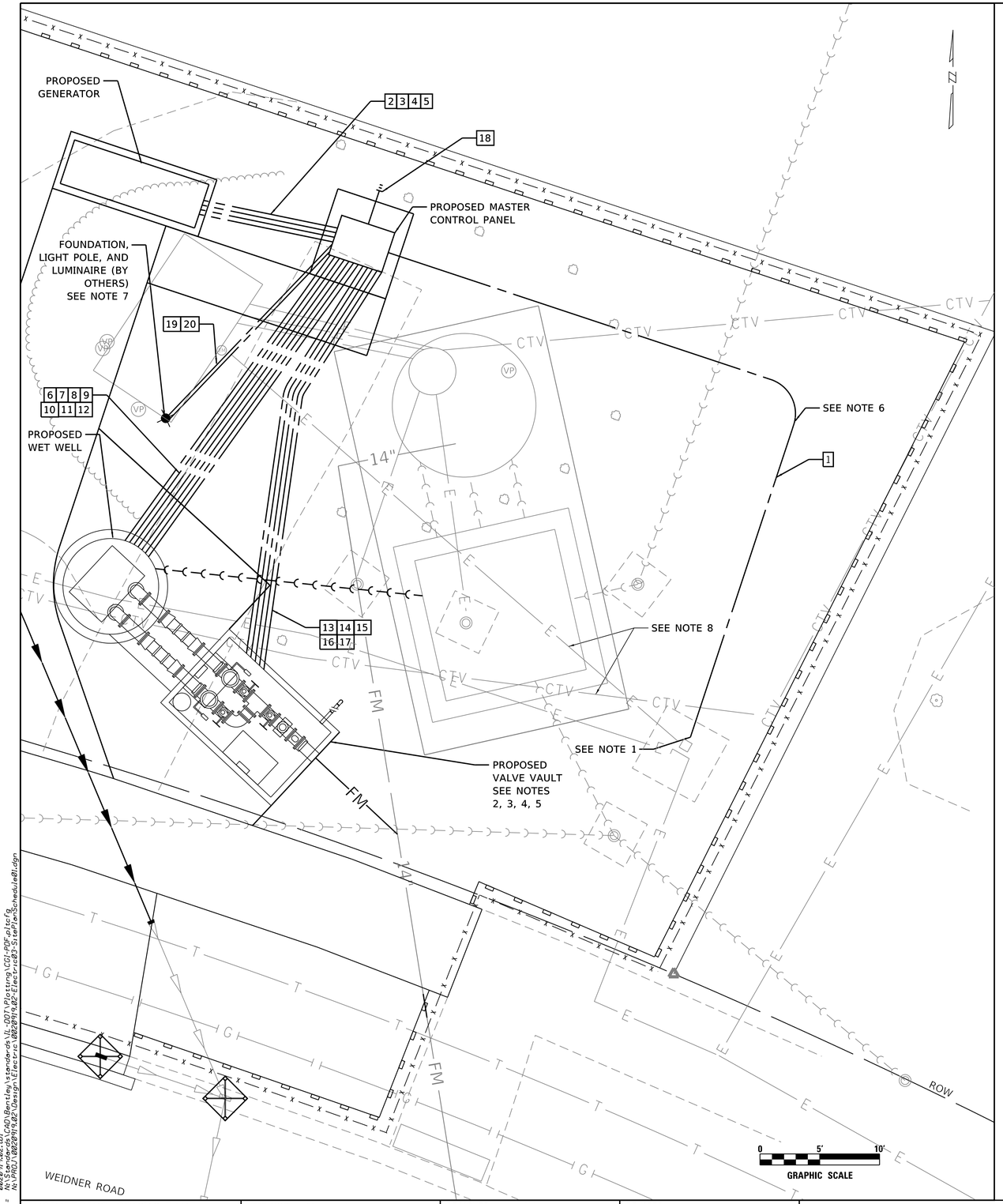
USER NAME = WaterResources	DESIGNED - LAM	REVISED -	VILLAGE OF BUFFALO GROVE
	DRAWN - CLB	REVISED -	
PLOT SCALE =	CHECKED - LAM	REVISED -	
PLOT DATE = 2/10/2020	DATE - 1/16/2020	REVISED -	

CHATHAM LIFT STATION RECONSTRUCTION
PROPOSED LIFT STATION PLAN AND DETAILS

SCALE: | SHEET NO. 5 OF 12 SHEETS | STA. | TO STA.

COUNTY	TOTAL SHEETS	SHEET NO.
COOK	12	5

ILLINOIS



SCHEDULE OF CONDUIT AND CABLE

TAG	FROM	TO	CONDUIT			POWER (P) / CONTROLS (C)	CABLE
			QTY.	SIZE	MATL.		
1	COMED TRANSFORMER	MCP (METER)	1	3"	PVC	P	4-1/C #3/0
2	STANDBY GENERATOR	MCP	1	3"	RGS	P	4-1/C #3/0 & 1/C #3/0 GROUND
3	STANDBY GENERATOR	MCP	1	1"	RGS	P	CABLE PER MANUFACTURER (BATTERY CHARGER)
4	STANDBY GENERATOR	MCP	1	1"	RGS	P	CABLE PER MANUFACTURER (BLOCK HEATER)
5	STANDBY GENERATOR	MCP	1	1"	RGS	C	CABLE PER MANUFACTURER (CONTROLS)
6	PUMP 1	MCP	1	2"	RGS	P	4-1/C #2 & 1/C #4 GROUND
7	PUMP 2	MCP	1	2"	RGS	P	4-1/C #2 & 1/C #4 GROUND
8	LEVEL TRANSDUCER	MCP	1	1"	RGS	C	CABLE PER MANUFACTURER
9	FLOATS	MCP	1	2"	RGS	C	CABLES PER MANUFACTURER
10	HATCH LIMIT SWITCH	MCP	1	1"	RGS	C	2-1/C #12 & 1/C #12 GROUND
11	SPARE WET WELL	MCP	1	1"	RGS	P	NA
12	SPARE WET WELL	MCP	1	2"	RGS	NA	NA
13	MCP	RECEPTACLE/SUMP PUMP	1	1"	RGS	P	3-1/C #12 & 1/C #12 GROUND
14	MCP	LIGHT	1	1"	RGS	P	2-1/C #12 & 1/C #12 GROUND
15	FLOW METER	MCP	2	1"	RGS	C	CABLE PER MANUFACTURER
16	FLOAT SWITCH/HATCH LIMIT SWITCHES	MCP	1	1"	RGS	C	3-1/C #12 & 1/C #12 GROUND
17	SPARE VALVE VAULT	MCP	1	1"	RGS	P	NA
18	MCP	SITE GROUNDING ELECTRODE SYSTEM	1	1"	RGS	P	#2/0 TINNED BARE STRANDED COPPER
19	MCP	LIGHT POLE	1	1"	RGS	P	BY OTHERS
20	MCP	LIGHT POLE	1	1"	RGS	P	BY OTHERS

NOTES:

1) THE CONTRACTOR SHALL PROVIDE AND COIL 15' OF SLACK AT THE TRANSFORMER FOR CONNECTION BY COMED PERSONNEL.

2) PROVIDE A DUPLEX RECEPTACLE WITHIN THE VALVE VAULT. EACH RECEPTACLE SHALL BE ON A SEPERATE CIRCUIT. RECEPTACLES SHALL BE MOUNTED IN A BOX WITH A GASKETED AND WEATHERPROOF CAST METAL COVER PLATE AND CAP OVER EACH RECEPTACLE OPENING. CAPS SHALL BE PERMANENTLY ATTACHED TO THE COVER PLATE BY MEANS OF A SPRING HINGED CAP.

3) VALVE VAULT LUMINAIRE SHALL BE A LED TYPE, CORROSION RESISTANT, EXPLOSION PROOF AND SHALL BE WALL OR CEILING MOUNTED. LUMINAIRE SHALL BE CONTROLLED BY AN EXPLOSION PROOF, WALL MOUNTED TOGGLE SWITCH.

4) JUNCTION BOX SHALL BE 316 STAINLESS STEEL WATERTIGHT, 20"x16"x8", N.E.M.A. 4X.

5) CONDUIT ENTRIES INTO JUNCTION BOX SHALL BE FILLED WITH DUCT PUTTY.

6) SERVICE DUCT SHALL HAVE A MINIMUM OF 36" COVER.

7) POLE LOCATION TO BE DETERMINED BY THE VILLAGE. STUB CONDUIT AND MARK LOCATION WITH A 2" X 4" POST.

8) COMED AND COMCAST LINES TO BE RELOCATED BY OTHERS.

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CiorbaGroup
6725 W. Higgins Road, Suite 600, Chicago, IL 60631 | 773.775.4009 | www.ciorba.com

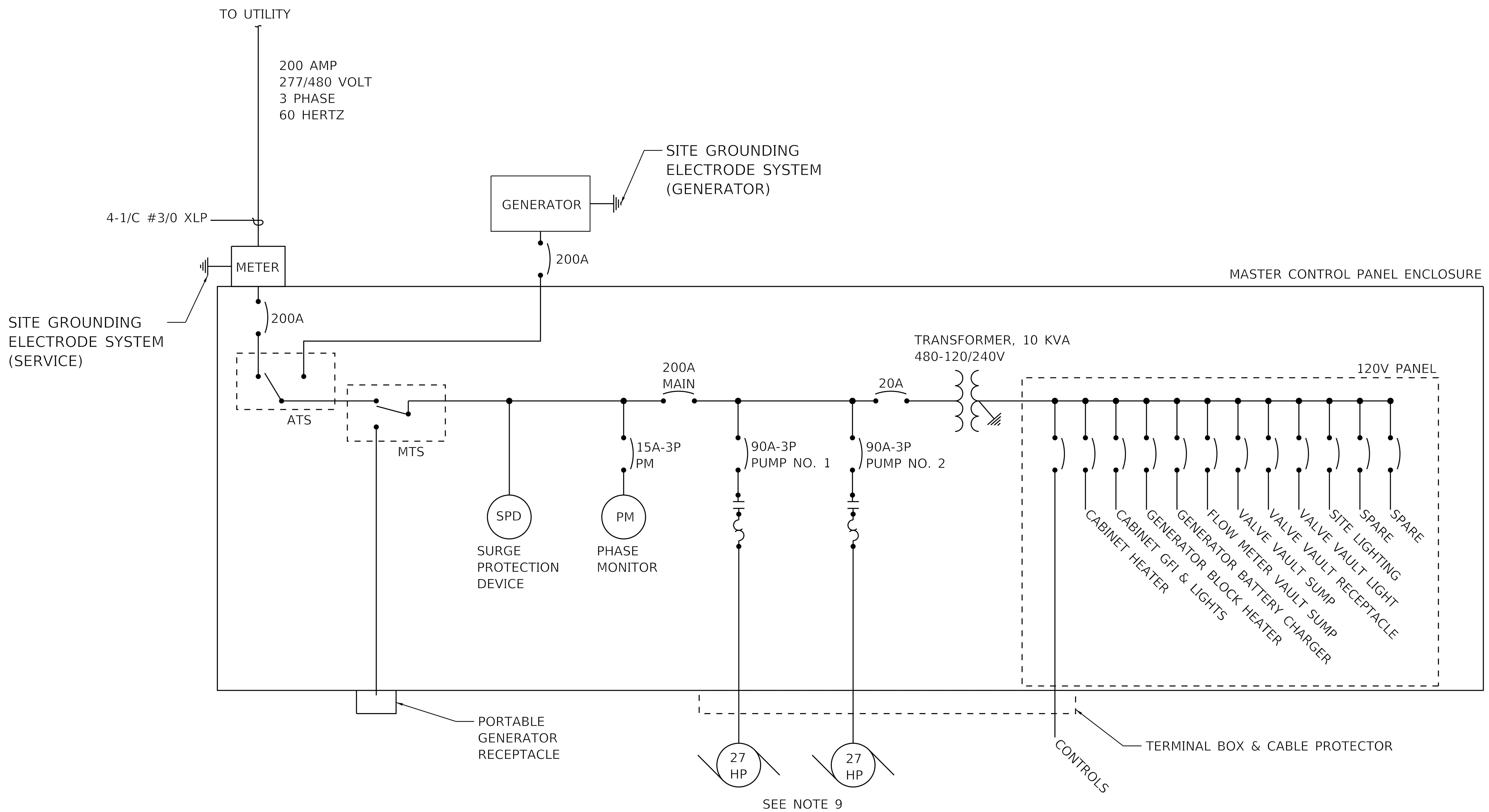
USER NAME = Electrical	DESIGNED - LAM	REVISED -	
	DRAWN - CLB	REVISED -	
PLOT SCALE =	CHECKED - LAM	REVISED -	
PLOT DATE = 2/10/2020	DATE - 1/16/2020	REVISED -	

VILLAGE OF BUFFALO GROVE

CHATHAM LIFT STATION RECONSTRUCTION
ELECTRICAL SITE PLAN AND SCHEDULE

SCALE: | SHEET NO. 6 OF 12 SHEETS | STA. | TO STA.

		COUNTY	TOTAL SHEETS	SHEET NO.
		COOK	12	6
	ILLINOIS			



ONE-LINE DIAGRAM

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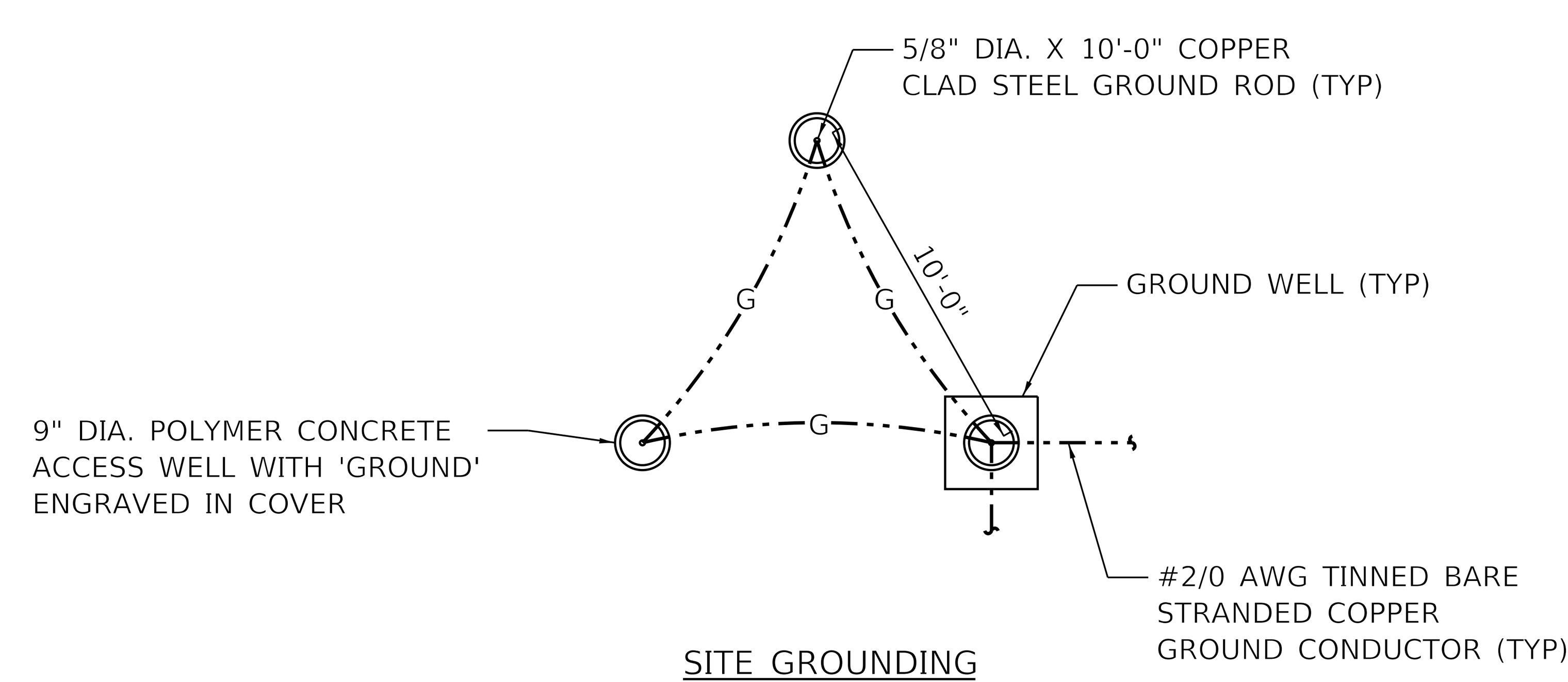

SITE GROUNDING
ELECTRODE SYSTEM

NO SCALE

NOTES

1. ALL COMPONENTS AND ASSEMBLIES SHOWN ARE NEW UNLESS NOTED.
2. CONTRACTOR TO COORDINATE WITH COMED PRIOR TO ANY WORK ON EXISTING ELECTRICAL SERVICE.
3. ALL ELECTRICAL COMPONENTS SHALL BE NEMA 4X RATED.
4. ALL PENETRATIONS IN STRUCTURES SHALL BE SEALED COMPLETELY.
5. INSTALLATION OF ELECTRICAL SYSTEMS SHALL COMPLY WITH THE REQUIREMENTS OF THE 2020 NATIONAL ELECTRICAL CODE, NATIONAL ELECTRICAL SAFETY CODE, OCCUPATIONAL SAFETY AND HEALTH ACT, APPLICABLE LOCAL CODES AND REGULATIONS.
6. EQUIPMENT SHALL BE GROUNDED AND BONDED IN ACCORDANCE WITH 2017 NATIONAL ELECTRICAL CODE, NATIONAL ELECTRICAL SAFETY CODE, AND RELATED CODES.
7. CONDUIT PENETRATIONS SHALL BE MADE THROUGH THE BOTTOM OF FOUNDATION ONLY.
8. ALL BREAKERS SHALL BE 20A UNLESS OTHERWISE NOTED.
9. BOTH PUMPS MAY NOT BE OPERATING AT THE SAME TIME. MWRD PERSONNEL SHALL HAVE UNRESTRICTED ACCESS TO THE LIFT STATION FOR RANDOM UNANNOUNCED INSPECTION AND TESTING.

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USER NAME = Electrical	DESIGNED - LAM	REVISED -
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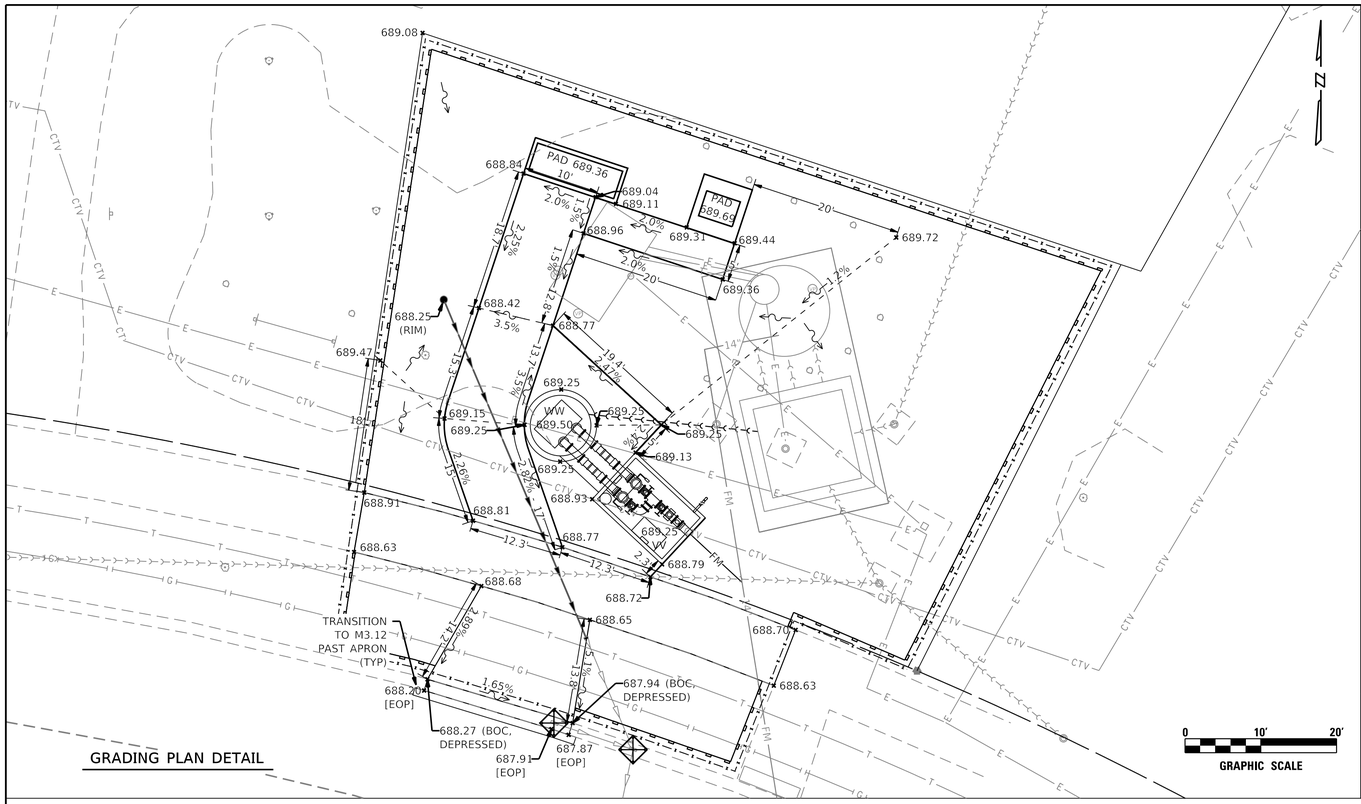
VILLAGE OF BUFFALO GROVE

CHATHAM LIFT STATION RECONSTRUCTION
ONE LINE DIAGRAM AND ELECTRICAL DETAILS

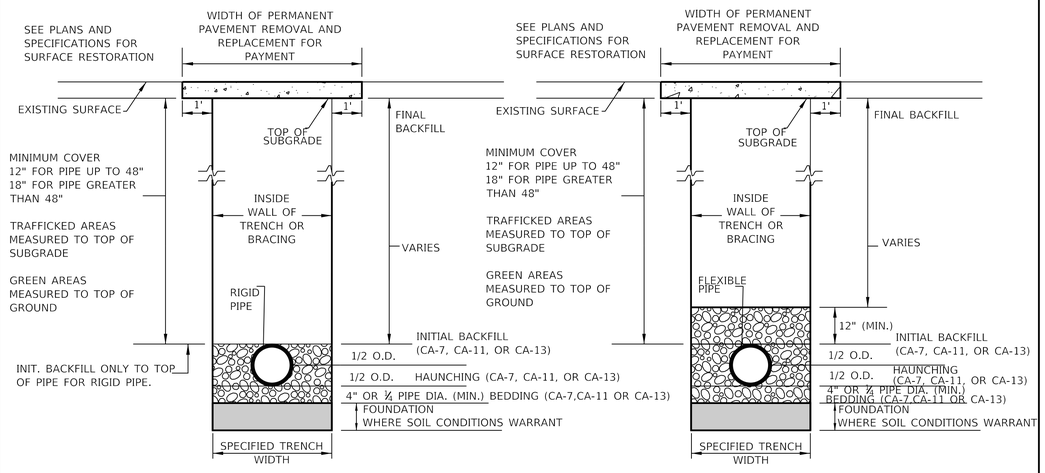
SCALE: | SHEET NO. 7 OF 12 SHEETS | STA. TO STA.

COUNTY	TOTAL SHEETS	SHEET NO.
COOK	12	7

ILLINOIS



GRADING PLAN DETAIL



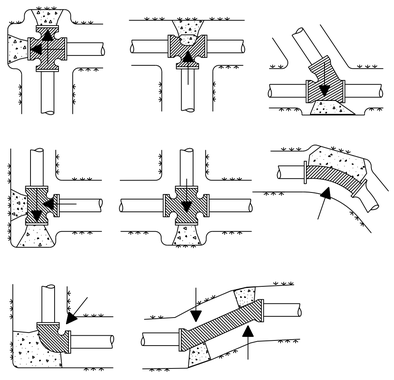
RIGID PIPE INSTALLATION DETAIL

FLEXIBLE PIPE INSTALLATION DETAIL

NOTES:
1. FOR QUALIFIED SEWER CONSTRUCTION ONLY.
2. SHORING, OR EQUIVALENT PROTECTIVE SYSTEM, REQUIRED FOR TRENCHES OF 5' DEPTH OR GREATER, OR AS REQUIRED BY MUNICIPALITY.

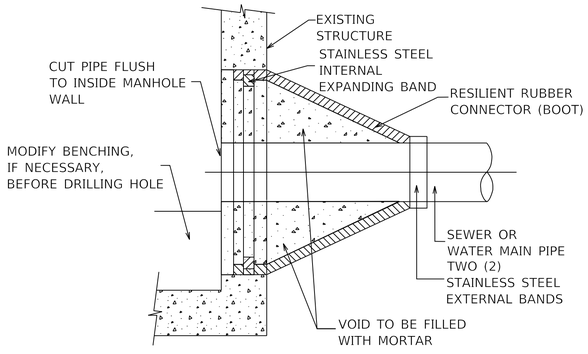
NOT TO SCALE

	TECHNICAL GUIDANCE MANUAL	7/1/15
	RIGID AND FLEXIBLE PIPE INSTALLATION DETAIL	STD. DWG. NO. 34
		PAGE NO. 35



NOTES:
1. ALL BLOCKS BEAR AGAINST UNDISTURBED EARTH.
2. ARROWS INDICATE DIRECTION OF THRUST.
3. ALL BLOCKS TO BE 3000 P.S.I. CONCRETE.
4. ALL FITTINGS SHOWN IN PLAN EXCEPT VERTICAL BEND.

BEND DETAILS

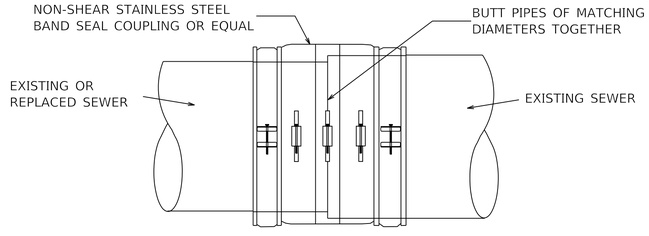


NOTES:

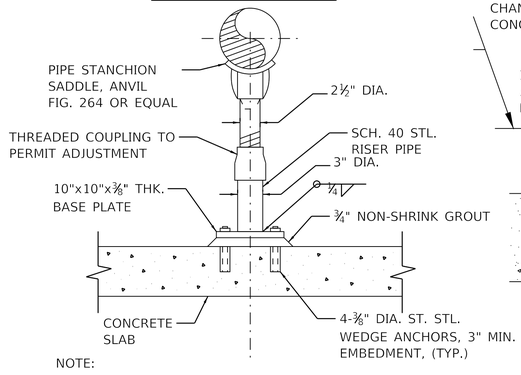
1. ~~1.~~ RESILIENT RUBBER CONNECTOR COMPLYING WITH ASTM STANDARD C-923 (MOST RECENT EDITION) SHALL BE USED.
2. CORE-DRILL CIRCULAR OPENING IN STRUCTURE WALL OF DIAMETER NECESSARY TO FIT THE REQUIRED BOOT SIZE.
3. KOR-N SEAL FLEXIBLE RUBBER BOOT (MANUFACTURED BY NATIONAL POLLUTION CONTROL SYSTEMS, INC.) MAY BE USED IF APPROVED BY VILLAGE ENGINEERING DEPARTMENT.
4. CUT, SHAPE AND SLOPE NEW INVERT CHANNEL IN THE EXISTING CONCRETE BENCH FOR SMOOTH FLOW FROM NEW CONNECTION.
5. CLEAN EXISTING STRUCTURE AND SEWER PIPE OF ANY DIRT, CONCRETE OR DEBRIS WHICH MAY ACCUMULATE DURING THE CONSTRUCTION PROCESS.

SECTION

PIPE CONNECTION TO STRUCTURE DETAIL

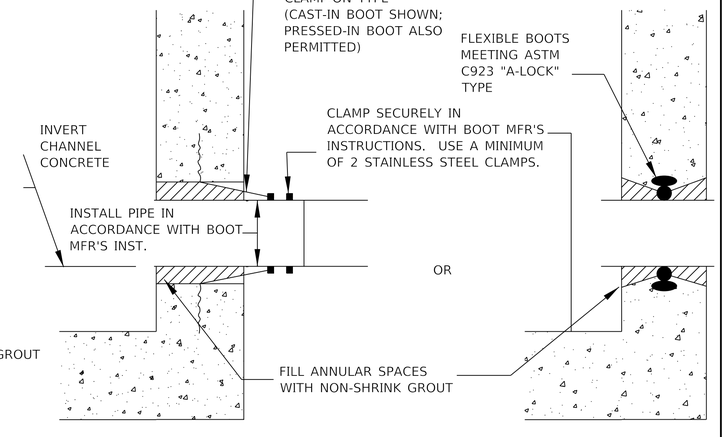


PIPE COUPLING DETAIL



NOTE:
1. PIPE SUPPORT SHALL BE HOT DIPPED GALVANIZED.

PIPE SUPPORT DETAIL



MANHOLE CONNECTION DETAIL

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ENGINEERING CONSULTANT	USER NAME = cbenton	DESIGNED - LAM	REVISED -
CiorbaGroup		DRAWN - CLB	REVISED -
8725 W. Higgins Road, Suite 600, Chicago, IL 60631 | 773.775.4009 | www.ciorba.com	PLOT SCALE =	CHECKED - LAM	REVISED -
	PLOT DATE = 1/17/2020	DATE - 1/16/2020	REVISED -

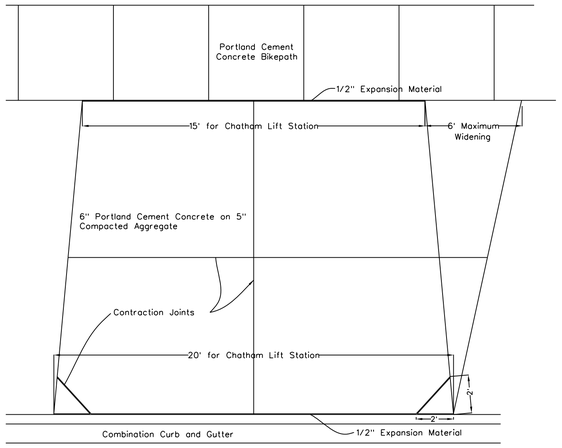
VILLAGE OF BUFFALO GROVE

CHATHAM LIFT STATION RECONSTRUCTION
MISCELLANEOUS DETAILS 1

SCALE: | SHEET NO. 8 OF 12 SHEETS | STA. | TO STA.

COUNTY	TOTAL SHEETS	SHEET NO.
COOK	12	8
ILLINOIS		

EXHIBIT NO. 503 (MODIFIED)



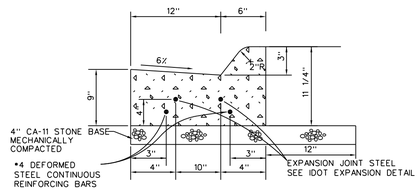
DRIVEWAY APRON DETAIL

NOTE:

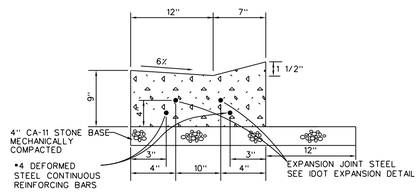
1. Contraction joint depth shall be 1-1/4" minimum.
2. Contraction joint shall divide the apron into slabs approximately square with no side longer than 15'.
3. Minimum apron width is 10' at the sidewalk.

Prepared by the Village Engineering Division

EXHIBIT NO. 501 (MODIFIED)



M3.12



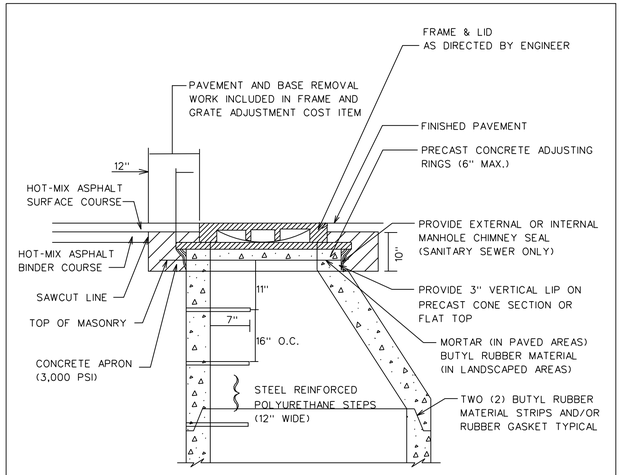
DEPRESSED SECTION

M3.12 CURB AND GUTTER DETAIL

NOTE:

1. SET EXPANSION JOINTS AT ALL PC'S, PT'S, FIVE FEET ON EITHER SIDE OF ANY FRAMES, AND AT 45' MAX. INTERVALS.
2. CONTRACTION JOINTS SHALL BE TOOLED AT 15' INTERVALS AND SAW CUT WITHIN 24 HOURS.
3. JOINTS SHALL BE CLEANED AND SEALED ACCORDING TO ARTICLE 420.12.
4. CURING COMPOUND REQUIRED.
5. IDOT APPROVED CURBS ALSO PERMITTED.

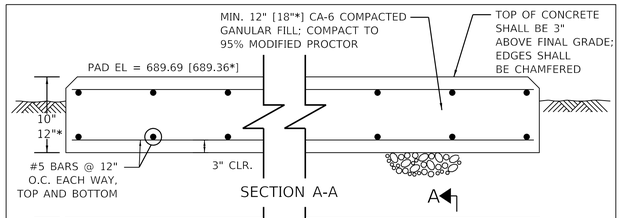
Prepared by the Village Engineering Division

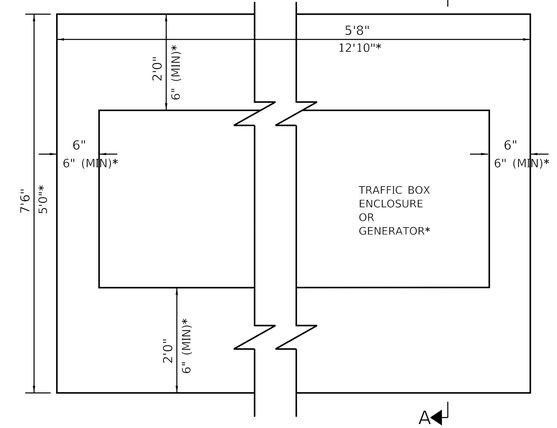


STRUCTURE FRAME AND ADJUSTMENT DETAIL

NOTE:

THE REQUIRED MANHOLE FRAME AND GRATE ADJUSTMENTS, DUE TO THE PAVEMENT RESURFACING, INCLUDING POURING OF CONCRETE APRON, SHALL BE PERFORMED BEFORE PLACING HOT-MIX ASPHALT SURFACE COURSE.

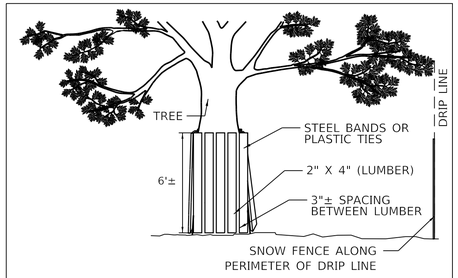




TRAFFIC BOX ENCLOSURE/GENERATOR CONCRETE PAD DETAIL

NOTES:

1. DIMENSIONS / NOTES WITH ASTERISK * REFER TO STANDBY GENERATOR PAD. OTHER NOTES / DIMENSIONS REFER TO TRAFFIC BOX ENCLOSURE.
2. FOUNDATION DIMENSIONS AND REINFORCEMENT SHOWN HEREON ARE PRELIMINARY AND REPRESENT MINIMUM CONSTRUCTION REQUIREMENTS.
3. REFER TO SHEET 11 FOR TRAFFIC BOX ENCLOSURES DIMENSIONS AND LAYOUT.

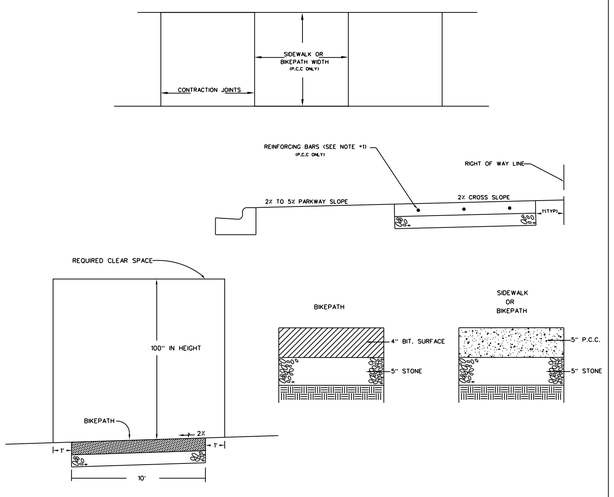


TREE PROTECTION DETAIL

NOTES:

1. EXISTING VEGETATION WHICH IS TO REMAIN IN PLACE SHALL BE PROTECTED AGAINST UNNECESSARY CUTTING, BREAKING OR SKINNING OF ROOTS, SKINNING AND BRUISING OF BARK, SMOTHERING BY STOCKPILING OF CONSTRUCTION MATERIALS OR EXCAVATED MATERIALS WITHIN THE DRIP LINE, EXCESS FOOT OR VEHICULAR TRAFFIC, OR PARKING OF VEHICLES WITHIN THE DRIP LINE.
2. ALL TREES TO REMAIN SHALL BE PROTECTED WITH A SNOW FENCE INSTALLED AROUND THE PERIMETER OF THE TREES DRIP LINE. ANY CONSTRUCTION INSIDE OF THE DRIP LINE OF THE TREE REQUIRES ROOT PRUNING PRIOR TO THE EXCAVATION.
3. EXISTING VEGETATION WHICH IS TO REMAIN IN PLACE SHALL BE WATERED AS REQUIRED TO MAINTAIN ITS HEALTH DURING THE COURSE OF CONSTRUCTION OPERATIONS.
4. PROTECTION SHALL BE PROVIDED FOR ROOTS OVER 1 1/2" IN DIAMETER WHICH ARE CUT DURING CONSTRUCTION OPERATIONS. WHENEVER SUCH A ROOT IS CUT, THE CUT FACES SHALL BE COATED WITH AN EMULSIFIED ASPHALT OR OTHER ACCEPTABLE COATING SPECIFICALLY FORMULATED FOR HORTICULTURAL USE ON DAMAGED OR CUT PLANT TISSUES. ALL EXPOSED ROOTS SHALL BE TEMPORARILY COVERED WITH WET BURLAP TO PREVENT THE ROOTS FROM DRYING OUT. EXPOSED ROOTS SHALL BE PROVIDED WITH EARTH COVER AS SOON AS POSSIBLE.
5. VEGETATION THAT BECOMES DAMAGED BY CONSTRUCTION OPERATIONS SHALL BE REPAIRED OR REPLACED IN A MANNER ACCEPTABLE TO THE VILLAGE.
6. DAMAGED TREES SHALL BE REPAIRED BY A QUALIFIED TREE SURGEON. DAMAGED TREES WHICH CANNOT BE REPAIRED AND RESTORED TO FULL GROWTH STATUS, AS DETERMINED BY THE TREE SURGEON, SHALL BE REPLACED.

EXHIBIT NO. 502

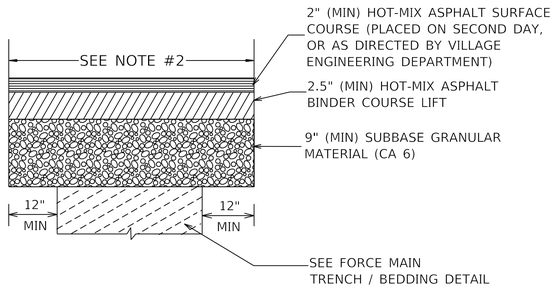


BIKEPATH & SIDEWALK DETAIL

NOTE:

1. AT ALL TRENCH CROSSINGS, 3 - 10' X 3/4" REINFORCING BARS SHALL BE PLACED EQUALLY SPACED AND CENTERED OVER THE TRENCH.
2. CONCRETE THICKNESS SHALL BE 6" AT ALL DRIVEWAYS AND TRENCH CROSSINGS.
3. SET 3/4" EXPANSION JOINTS AT 50' MAX. SPACING INTERVALS.
4. SIDEWALK WIDTH AS SHOWN ON PLANS.
5. CURB RAMPS SHALL COMPLY WITH LATEST ACCESSIBILITY STANDARDS.

Prepared by the Village Engineering Division



HMA DRIVEWAY DETAIL

NOTES:

1. REFER TO GRADING PLAN FOR DRIVEWAY SLOPES.
2. DRIVEWAY WIDTH AND GEOMETRY SHALL BE AS SHOWN ON THE PLANS.

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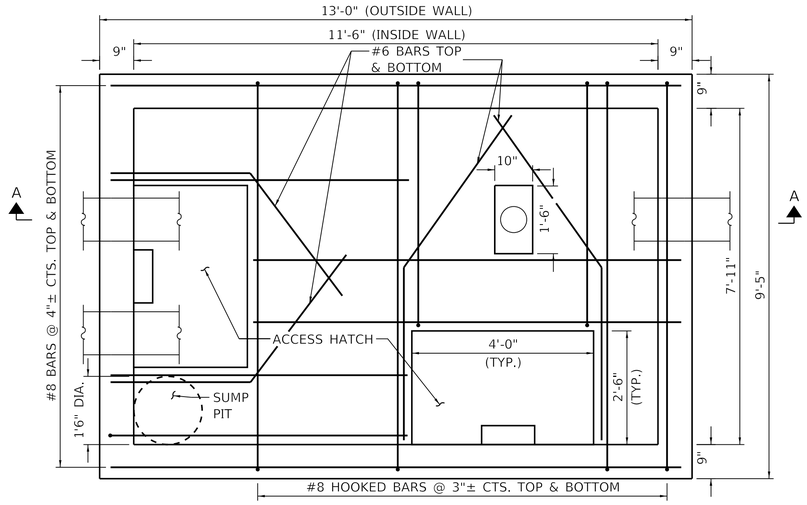
ENGINEERING CONSULTANT	USER NAME = cbenton	DESIGNED - LAM	REVISED -
CiorbaGroup 9725 W. Higgins Road, Suite 600, Chicago, IL 60631 | 773.775.4009 | www.ciorba.com		DRAWN - CLB	REVISED -
	PLOT SCALE =	CHECKED - LAM	REVISED -
	PLOT DATE = 1/16/2020	DATE - 1/16/2020	REVISED -

VILLAGE OF BUFFALO GROVE

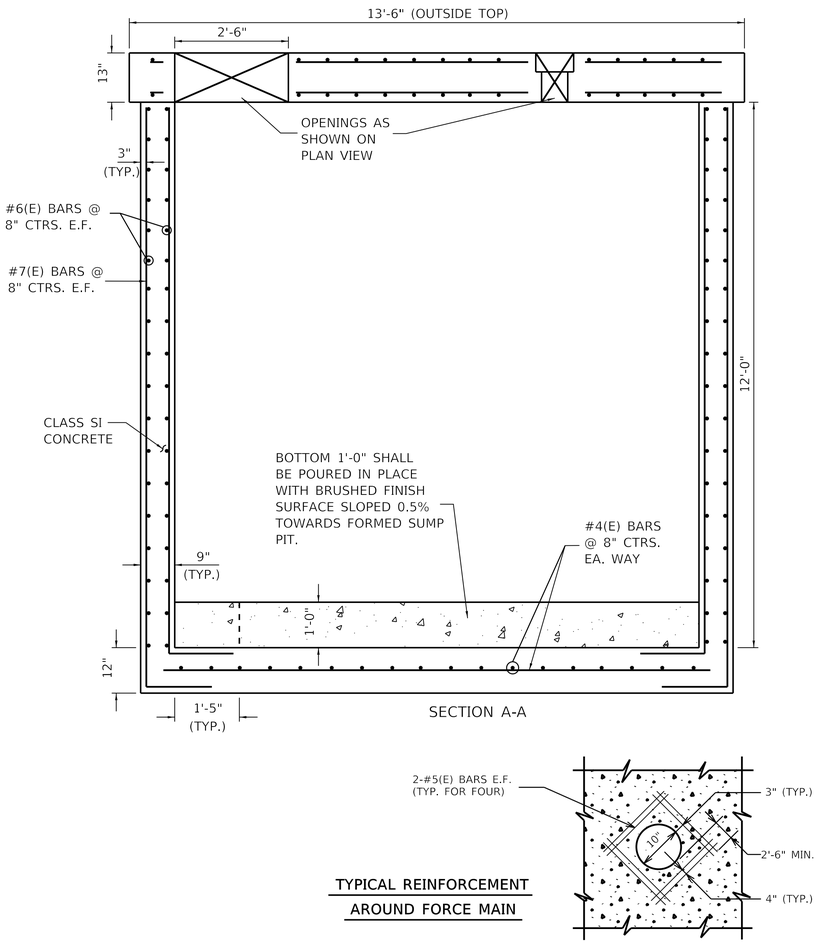
CHATHAM LIFT STATION RECONSTRUCTION
MISCELLANEOUS DETAILS 2

SCALE: | SHEET NO. 9 OF 12 SHEETS | STA. | TO STA.

		COUNTY	TOTAL SHEETS	SHEET NO.
		COOK	12	9
		ILLINOIS		



VALVE VAULT TOP PLAN



SECTION A-A

TYPICAL REINFORCEMENT AROUND FORCE MAIN

NOTES:

1. NEW FLAT TOP SLABS SHALL HAVE THE ACCESS FRAME AND HATCH CAST INTO THE TOP AND FRAME SHALL BE FLUSH WITH CONCRETE.

2. CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH 0F 4000 PSI AT 28 DAYS UNLESS OTHERWISE NOTED.

3. SURFACES OF POURS AT CONSTRUCTION JOINTS SHALL BE ROUGHENED (CONSTRUCTION JOINT TREATMENT), UNLESS OTHERWISE NOTED.

4. TYPE B WATERSTOPS (WS) SHALL BE USED BETWEEN VAULT BOTTOM SLAB AND SIDE WALLS IF STRUCTURE IS POURED IN PLACE. WATERSTOP SHALL BE A HYDROPHILIC, NON-TOXIC. SYNTHETIC WATERSTOP SIMILAR TO HYDROTITE SS-1818 AS MANUFACTURED BY MULTITURETHANES INC., BUFFALO, NY.

5. REINFORCEMENT BARS SHALL BE DEFORMED BILLET STEEL BARS CONFORMING TO ASTM A615 GRADE 60 WITH FY= 60,000 PSI.

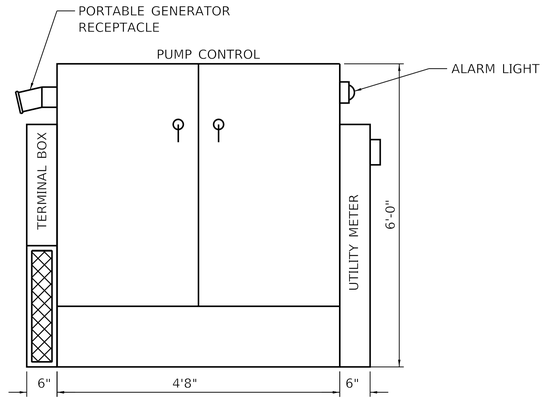
6. REINFORCEMENT SHALL HAVE A MINIMUM CLEAR CONCRETE COVER AS FOLLOWS, UNLESS OTHERWISE NOTED OR SHOWN ON THE DRAWINGS:

BOTTOM OF FOUNDATIONS	3"
BACKFILLED SURFACES	2"
INTERIOR SURFACES	2"

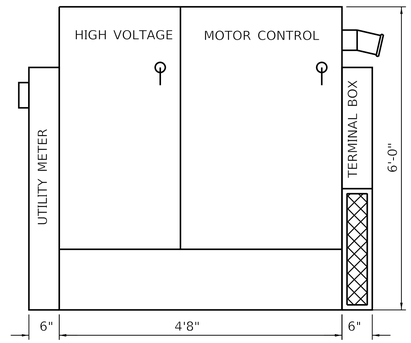
7. BACKFILLING SHALL NOT COMMENCE UNTIL THE CONCRETE REACHES FULL DESIGN STRENGTH AND SHALL PROCEED UNIFORMLY AROUND THE VAULT PERIMETER.

8. CONTRACTOR SHALL EXCAVATE BELOW BOTTOM ELEVATION OF THE STRUCTURE TO CONFIRM AND/OR PROVIDE A MINIMUM ALLOWABLE BEARING PRESSURE OF 3000 PSF.

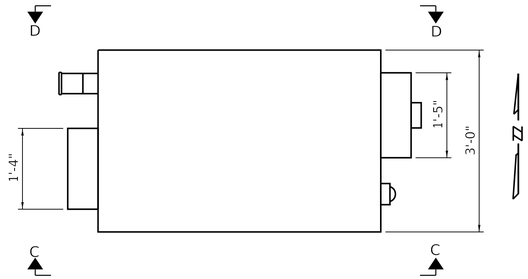
9. PRECAST ALTERNATIVE SHALL BE ACCEPTABLE CONTINGENT UPON ENGINEERING SUBMITTAL APPROVAL



VIEW C-C



VIEW D-D



TRAFFIC BOX ENCLOSURE PLAN

NOTES:

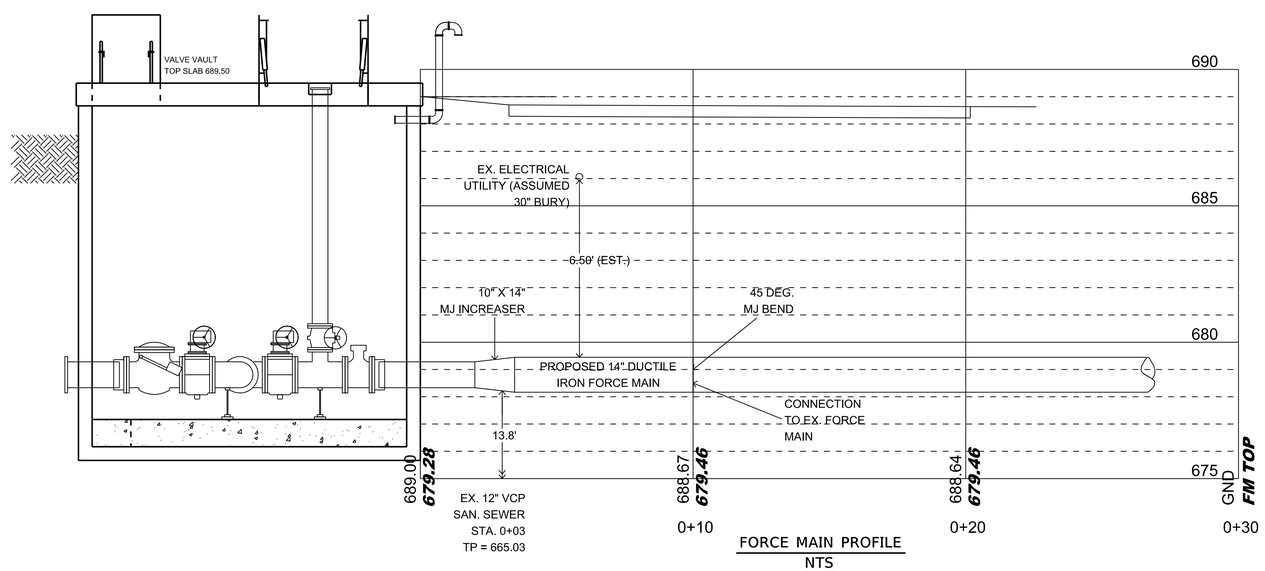
1. REFER TO CONDUIT PLAN FOR SCHEDULES AND LOCATION OF INTERFACING CONDUIT.

2. REFER TO TRAFFIC BOX ENCLOSURE PAD DETAIL FOR DIMENSIONS AND DETAIL.

3. ALL CONDUIT INTO BOX SHALL BE BOTTOM FED.

4. TRAFFIC BOX TO BE AS COMPACT AS POSSIBLE. CONTRACTOR SHALL COORDINATE OVERALL SIZE AS REQUIRED.

5. SEE SITE PLAN FOR ORIENTATION.



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CiorbaGroup		DRAWN - CLB	REVISED -		
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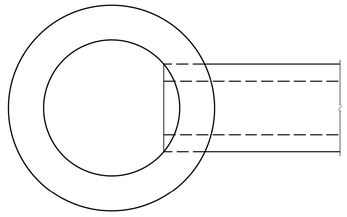
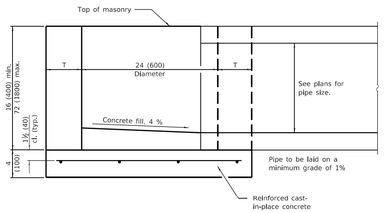
		ILLINOIS		

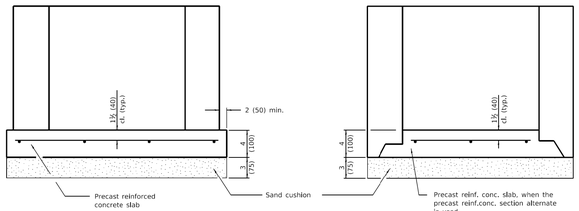


PLAN



ELEVATION

ALTERNATE MATERIALS FOR WALLS	T
BRICK MASONRY	8 (200)
CAST-IN-PLACE CONCRETE	6 (150)
CONCRETE MASONRY UNIT	5 (125)
PRECAST REINFORCED CONCRETE SECTION	3 (75)



ALTERNATE METHODS

GENERAL NOTES

Bottom slabs shall be reinforced with a minimum of 0.24 sq. in./ft. (510 sq. mm/m) in both directions with a maximum spacing of 10 (250).

Bottom slabs may be connected to the riser as determined by the fabricator; however, only a single row of reinforcement around the perimeter may be utilized.

All dimensions are in inches (millimeters) unless otherwise shown.

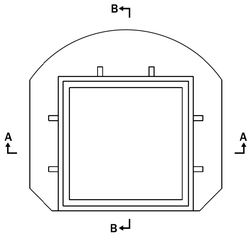
Illinois Department of Transportation

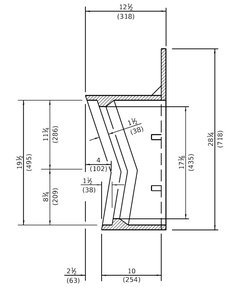
PASSED January 1, 2014
ENGINEER OF POLICY AND PROCEDURES
APPROVED January 1, 2014
ENGINEER OF DESIGN AND ENVIRONMENT

STANDARD 602301-04

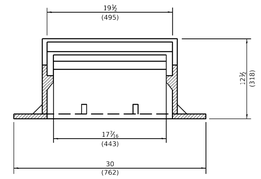
DATE	REVISIONS
1-1-14	Increased height to 72 (1800) maximum.
1-1-11	Detailed rein. in slabs.
	Added max. limit to height.
	Added general notes.

INLET - TYPE A

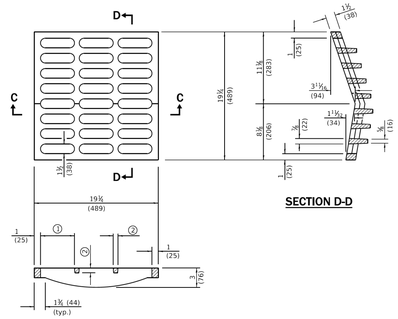




SECTION B-B



SECTION A-A



SECTION D-D

SECTION C-C

① = 6¼ (159) max. (typ.)
② = ¾ (19) min. (typ.)

CAST GRATE

Illinois Department of Transportation

PASSED January 1, 2015
ENGINEER OF POLICY AND PROCEDURES
APPROVED January 1, 2015
ENGINEER OF DESIGN AND ENVIRONMENT

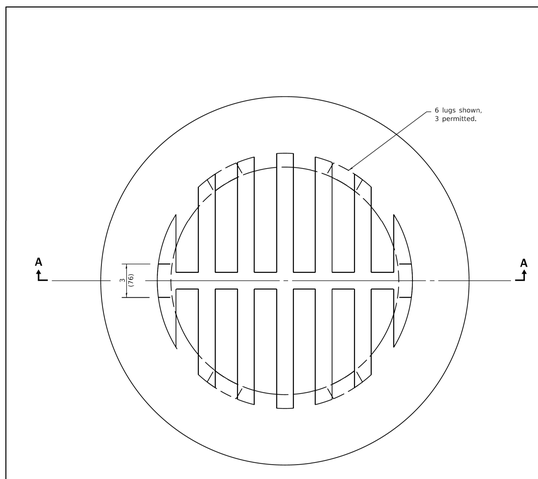
CAST FRAME

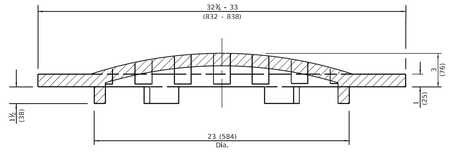
All dimensions are in inches (millimeters) unless otherwise shown.

DATE	REVISIONS
1-1-15	Revised dimensions of frame.
1-1-09	Switched units to English (metric).

FRAME AND GRATE TYPE 10

STANDARD 604046-03





SECTION A-A

CAST GRATE

All dimensions are in inches (millimeters) unless otherwise shown.

Illinois Department of Transportation

PASSED January 1, 2015
ENGINEER OF POLICY AND PROCEDURES
APPROVED January 1, 2015
ENGINEER OF DESIGN AND ENVIRONMENT

DATE	REVISIONS
1-1-15	Revised dimensions.
1-1-09	Switched units to English (metric).

GRATE TYPE 8

STANDARD 604036-03

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ENGINEERING CONSULTANT
CiorbaGroup
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USER NAME = cbenton	DESIGNED - LAM	REVISED -	
	DRAWN - CLB	REVISED -	
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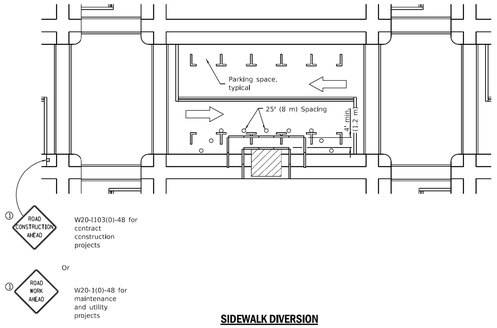
VILLAGE OF BUFFALO GROVE

CHATHAM LIFT STATION RECONSTRUCTION
IDOT DETAILS 1

SCALE: | SHEET NO. 11 OF 12 SHEETS | STA. | TO STA.

		COUNTY	TOTAL SHEETS	SHEET NO.
		COOK	12	11
	ILLINOIS			

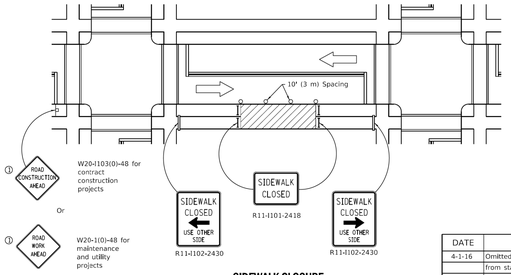


SIDEWALK DIVERSION

① Omit whenever duplicated by road work traffic control.

SYMBOLS

- Work area
- Sign on portable or permanent support
- Barricade or drum
- Cone, drum or barricade
- Type III barricade
- Detectable pedestrian channelizing barricade



SIDEWALK CLOSURE

GENERAL NOTES

This Standard is used where, at any time, pedestrian traffic must be rerouted due to work being performed.

This Standard must be used in conjunction with other Traffic Control & Protection Standards when roadway traffic is affected.

Temporary facilities shall be detectable and accessible.

The temporary pedestrian facilities shall be provided on the same side of the closed facilities whenever possible.

The SIDEWALK CLOSED / USE OTHER SIDE sign shall be placed at the nearest crosswalk or intersection to each end of the closure. Where the closure occurs at a corner, the signs shall be erected on the corners across the street from the closure. The SIDEWALK CLOSED signs shall be used at the ends of the actual closures.

Type III barricades and R11-2-4830 signs shall be positioned as shown in "ROAD CLOSED TO ALL TRAFFIC" detail on Standard 701901.

All dimensions are in inches (millimeters) unless otherwise shown.

Illinois Department of Transportation

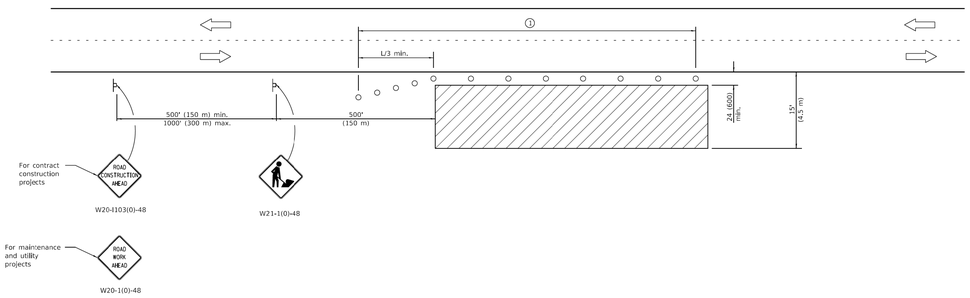
PASSED April 1, 2016 — ENGINEER OF SAFETY ENGINEERING
APPROVED April 1, 2016 — ENGINEER OF DESIGN AND ENVIRONMENT
BDSWD 1-1-17

DATE	REVISIONS
4-1-16	Omitted orange safety fence
	from standard as this is
	covered in the std. spec.
1-1-12	Added SIDEWALK DIVERSION.
	Modified appearance of
	plan views. Renamed Std.

SIDEWALK, CORNER OR CROSSWALK CLOSURE

(Sheet 1 of 2)

STANDARD 701801-06



TYPICAL APPLICATIONS

Utility operations
Culvert extensions
Side slope changes
Guardrail installation and maintenance
Delineator installation
Landscaping operations
Shoulder repair
Sign installation and maintenance

SYMBOLS

- Work area
- Sign
- Cone, drum or barricade

① When the work operation exceeds one hour, cones, drums or barricades shall be placed at 25' (8 m) centers for L/3 distance, and at 50' (15 m) centers through the remainder of the work area.

GENERAL NOTES

This Standard is used where any vehicles, equipment, workers or their activities will encroach in the area 15' (4.5 m) to 24 (600) from the edge of pavement.

Calculate L as follows:

SPEED LIMIT	FORMULAS English	(Metric)
40 mph (70 km/h) or less:	$L=\frac{WS^2}{60}$	$L=\frac{WS^2}{150}$
45 mph (80 km/h) or greater:	L=(W)(S)	L=0.65(W)(S)

W = Width of offset in feet (meters).

S = Normal posted speed mph (km/h).

All dimensions are in inches (millimeters) unless otherwise shown.

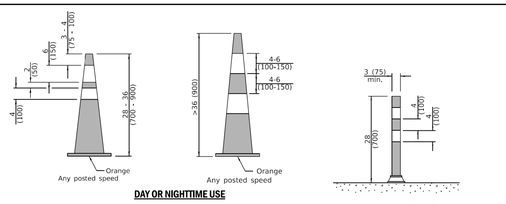
Illinois Department of Transportation

PASSED January 1, 2014 — ENGINEER OF SAFETY ENGINEERING
APPROVED January 1, 2014 — ENGINEER OF DESIGN AND ENVIRONMENT
BDSWD 1-1-17

DATE	REVISIONS
1-1-14	Revised workers sign
	number to agree with
	current MUTCD.
1-1-13	Omitted text "WORKERS"
	sign.

OFF-RD OPERATIONS, 2L, 2W, 15' (4.5 m) TO 24" (600 mm) FROM PAVEMENT EDGE

STANDARD 701006-05

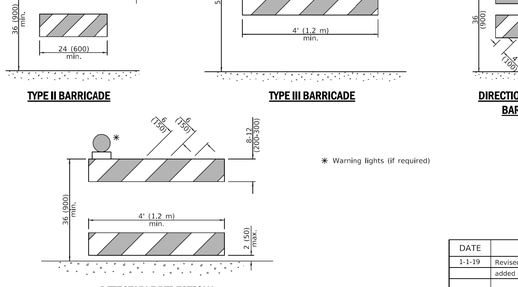


SIDEWALK DIVERSION

① Omit whenever duplicated by road work traffic control.

SYMBOLS

- Work area
- Sign on portable or permanent support
- Barricade or drum
- Cone, drum or barricade
- Type III barricade
- Detectable pedestrian channelizing barricade



SIDEWALK CLOSURE

GENERAL NOTES

This Standard is used where at any time, pedestrian traffic must be rerouted due to work being performed.

This Standard must be used in conjunction with other Traffic Control & Protection Standards when roadway traffic is affected.

Temporary facilities shall be detectable and accessible.

The temporary pedestrian facilities shall be provided on the same side of the closed facilities whenever possible.

The SIDEWALK CLOSED / USE OTHER SIDE sign shall be placed at the nearest crosswalk or intersection to each end of the closure. Where the closure occurs at a corner, the signs shall be erected on the corners across the street from the closure. The SIDEWALK CLOSED signs shall be used at the ends of the actual closures.

Type III barricades and R11-2-4830 signs shall be positioned as shown in "ROAD CLOSED TO ALL TRAFFIC" detail on Standard 701901.

All dimensions are in inches (millimeters) unless otherwise shown.

Illinois Department of Transportation

PASSED January 1, 2019 — ENGINEER OF SAFETY ENGINEERING
APPROVED January 1, 2019 — ENGINEER OF DESIGN AND ENVIRONMENT
BDSWD 1-1-13

DATE	REVISIONS
1-1-19	Revised cone usage and
	added cones >36" (900 m) height.
1-1-18	Revised END WORK ZONE
	SPEED LIMIT sign from
	orange to white background.

TRAFFIC CONTROL DEVICES

(Sheet 1 of 3)

STANDARD 701901-08

CONES

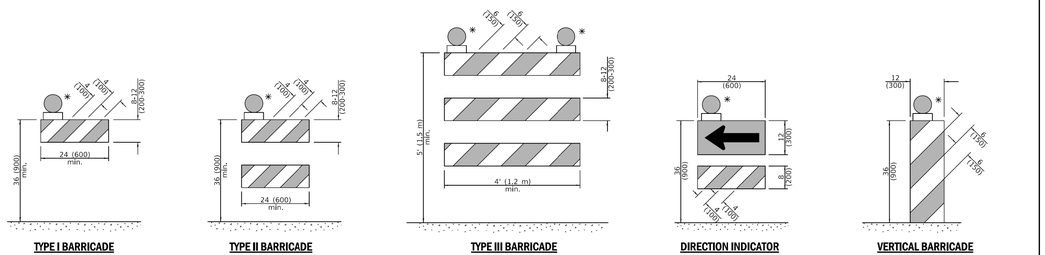
DAYTIME USE — DAY OR NIGHTTIME USE

TUBULAR MARKER

VERTICAL PANEL

POST MOUNTED

DRUM



TYPE I BARRICADE

TYPE II BARRICADE

TYPE III BARRICADE

DIRECTION INDICATOR BARRICADE

VERTICAL BARRICADE

✳ Warning lights (if required)

DETECTABLE PEDESTRIAN CHANNELIZING BARRICADE

GENERAL NOTES

All heights shown shall be measured above the pavement surface.

All dimensions are in inches (millimeters) unless otherwise shown.

Illinois Department of Transportation

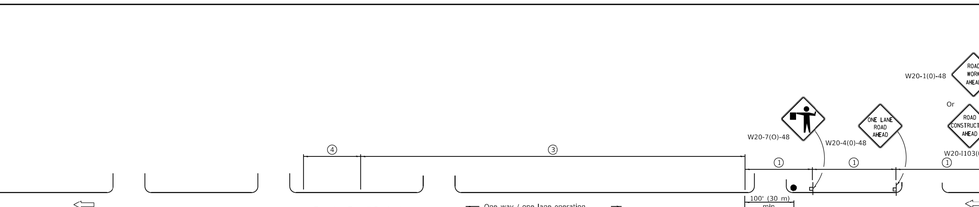
APPROVED January 1, 2019 — ENGINEER OF SAFETY ENGINEERING
APPROVED January 1, 2019 — ENGINEER OF DESIGN AND ENVIRONMENT
BDSWD 1-1-13

DATE	REVISIONS
1-1-19	Revised cone usage and
	added cones >36" (900 m) height.
1-1-18	Revised END WORK ZONE
	SPEED LIMIT sign from
	orange to white background.

TRAFFIC CONTROL DEVICES

(Sheet 2 of 3)

STANDARD 701901-08



SIGN SPACING	
Posted Speed	Sign Spacing
55	500' (150 m)
50-45	350' (100 m)
<<45	200' (60 m)

SYMBOLS

- Work area
- Cone, drum or barricade (not required for moving operations)
- Sign on portable or permanent support
- Flagger with traffic control sign
- Barricade or drum with flashing light
- Type III barricade with flashing lights

① Refer to SIGN SPACING TABLE for distances.

② For approved sideroad closures.

③ Cones at 25' (8 m) centers for 250' (75 m). Additional cones may be placed at 50' (15 m) centers. When drums or Type I or Type II barricades are used, the interval between devices may be doubled.

④ Cones, drums or barricades at 20' (6 m) centers.

GENERAL NOTES

This Standard is used where at any time, day or night, any vehicle, equipment, workers or their activities encroach on the pavement requiring the closure of one traffic lane in an urban area.

All dimensions are in inches (millimeters) unless otherwise shown.

Illinois Department of Transportation

PASSED January 1, 2011 — ENGINEER OF SAFETY ENGINEERING
APPROVED January 1, 2011 — ENGINEER OF DESIGN AND ENVIRONMENT
BDSWD 1-1-97

DATE	REVISIONS
1-1-11	Revised flagger sign.
1-1-09	Switched units to
	English (metric).
	Corrected sign No.'s.

URBAN LANE CLOSURE, 2L, 2W, UNDIVIDED

STANDARD 701501-06

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ENGINEERING CONSULTANT
CiorbaGroup
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USER NAME = cbenton	DESIGNED - LAM	REVISED -	
	DRAWN - CLB	REVISED -	
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PLOT DATE = 1/14/2020	DATE - 1/16/2020	REVISED -	

VILLAGE OF BUFFALO GROVE

CHATHAM LIFT STATION RECONSTRUCTION
IDOT DETAILS 2

SCALE: | SHEET NO. 12 OF 12 SHEETS | STA. | TO STA.

		COUNTY	TOTAL SHEETS	SHEET NO.
		COOK	12	12
		ILLINOIS		