PROPOSED SITE IMPROVEMENTS FOR

COUNTRYSIDE MANOR ELEVATED TANK

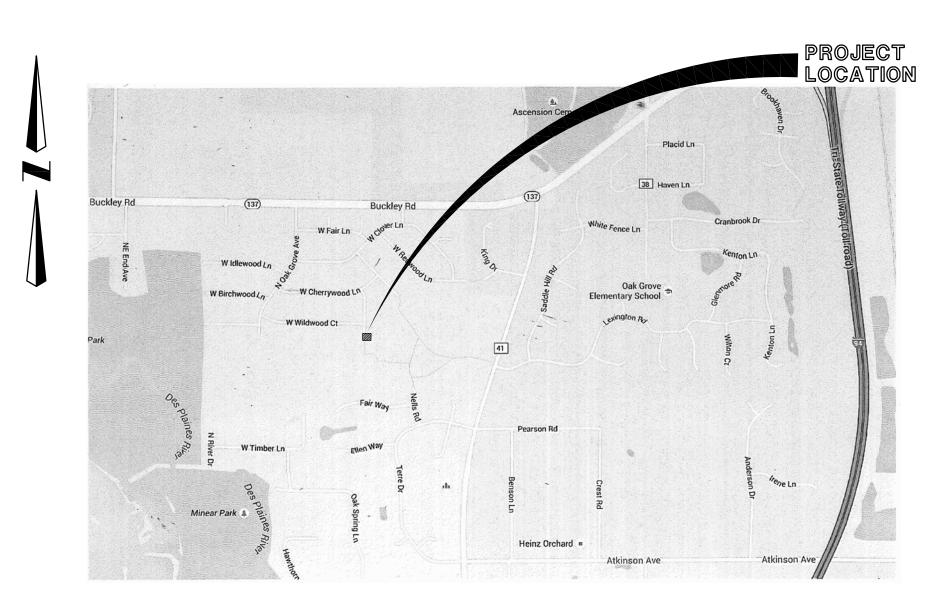
PART OF SECTION 10, T 44 N, R 11 E

VILLAGE OF LIBERTYVILLE

LAKE COUNTY, ILLINOIS

INDEX OF SHEETS

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6-6-16	C10. STANDARD DETAILS
6-6-16	C11. STORMWATER POLLUTION PREVENTION PLAN



LOCATION MAP

STANDARD SYMBOLS

PROPOSED

	SANITARY MANHOLE (M.H.)
	STORM MANHOLE OR INLET MANHOLE (M.H or I.M.H.)
•	CATCH BASIN (C.B.)
	INLET (INL.)
M	VALVE & VAULT (V.V.)
$oldsymbol{\Theta}$	VALVE & BOX (V.B.)
\blacksquare	WATER SERVICE BOX
*	FIRE HYDRANT (HYD.)
	HEADWALL OR FLARED END SECTION (F.E.S.)
◄ ──	DITCH
◆ ~~	SWALE
8"SA<	SANITARY SEWER
12"ST (STORM SEWER
6"W	WATER MAIN
+	STREET LIGHT
⑤	SEE SHEET NUMBER

EXISTING

	BENCHMARK
\bigcirc	SANITARY MANHOLE (M.H.)
0	STORM MANHOLE OR INLET MANHOLE (M.H. or I.M.H.)
0	CATCH BASIN (C.B.)
	INLET (INL.)
\boxtimes	VALVE & VAULT (V.V.)
\otimes	VALVE & BOX (V.B.)
口	WATER SERVICE BOX
ά	FIRE HYDRANT (HYD.)
\smile	HEADWALL OR FLARED END SECTION (F.E.S.)
◄ ──	DITCH
◆ ~~	SWALE
8"SA<	SANITARY SEWER
12"ST (STORM SEWER
6"W	WATER MAIN
- ф•	STREET LIGHT

BENCHMARK:

LAKE COUNTY BM #6-34B. CHISLED "X" ON N.W. RIM OF MANHOLE LOCATED AT THE S.E. CORNER OF STATE ROUTE 137 AND EAST END AVENUE. ELEVATION = 656.15 NAVD88

EXISTING UTILITIES:

WHEN THE PLANS OR SPECIAL PROVISIONS INCLUDE INFORMATION PERTAINING TO THE LOCATION OF UNDERGROUND UTILITY FACILITIES, SUCH INFORMATION REPRESENTS ONLY THE OPINION OF THE ENGINEER AS TO THE LOCATION OF SUCH UTILITIES AND IS ONLY INCLUDED FOR THE CONVENIENCE OF THE BIDDER. THE ENGINEER AND OWNER ASSUME NO RESPONSIBILITY WHATSOEVER IN RESPECT TO THE SUFFICIENCY OR ACCURACY OF THE INFORMATION SHOWN ON THE PLANS RELATIVE TO THE LOCATION OF UNDERGROUND UTILITY FACILITIES OR THE MANNER IN WHICH THEY ARE TO BE REMOVED OR ADJUSTED. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE ACTUAL LOCATION OF ALL SUCH FACILITIES. HE SHALL ALSO OBTAIN FROM THE REPRESENTATIVE UTILITY COMPANIES DETAILED INFORMATION RELATIVE TO THE LOCATION OF THEIR FACILITIES AND THE WORKING SCHEDULES OF THE UTILITY COMPANIES FOR REMOVING OR ADJUSTING THEM.

E WORKING SCHEDOLES OF THE OTHER COMPANIES FOR REMOVING OR ADDOSTING THEM.												
								DESIGNED BY: DMW	DATE: 01-19-16			
SCALE IN FEET	DMW	6-13-16	PER LCPW					CHECKED BY: DRF	DATE: 01-19-16			
SOLE PROPERTY OF GREENGARD, INC. AND NO REPRODUCTION OR USE, IN WHOLE OR PART WITHOUT WRITTEN PERMISSION OF GREENGARD, INC.	MRT DRAWN BY:	6-6-16 DATE:	PER LCPW	REVISIONS	DRAWN BY:	DATE:	REVISIONS	APPROVED BY: DMW	DATE: 01-19-16			



48 hours

BEFORE YOU DIG

1-800-892-0123

TOLL FREE

Operates 24 Hours

Every Day

N/A COUNTF

COUNTRYSIDE MANOR ELEVATED TANK — LIBERTYVILLE, IL

TITLE SHEET

GENERAL NOTES EARTHWORK UNDERGROUND UTILITIES THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION", DEPARTMENT OF TRANSPORTATION, 1. ALL EARTHWORK WITHIN THE LIMITS OF THIS PROJECT SHALL BE DONE IN ACCORDANCE WITH THE "STANDARD <u>GENERAL:</u> STATE OF ILLINOIS, AS ADOPTED JANUARY 1, 2012; THE "SPECIFICATIONS FOR WATER AND SEWER MAIN SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION", DEPARTMENT OF TRANSPORTATION, STATE OF ILLINOIS, SEWER AND WATER MAIN SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE "STANDARD SPECIFICATIONS FOR AS ADOPTED JANUARY 1, 2012; THE PLANS AND SPECIFICATIONS; AND PER THE MUNICIPALITY CODES AND CONSTRUCTION IN ILLINOIS" (SEVENTH EDITION) DATED 2014; AND THE MUNICIPALITY'S CODES AND ORDINANCES ORDINANCES. IN CASE OF CONFLICT, THE MUNICIPALITY CODES AND ORDINANCES SHALL GOVERN. SEWER AND WATER MAIN CONSTRUCTION IN ILLINOIS" (SEVENTH EDITION), DATED 2014; AND THE "ARE INCORPORATED HEREIN BY REFERENCE AND SHALL BE REFERRED TO AS THE "STANDARD SPECIFICATIONS" MUNICIPALITY'S CODES AND ORDINANCES CURRENTLY IN EFFECT. IN CASE OF CONFLICT, THE MUNICIPALITY'S CODES AND ORDINANCES SHALL GOVERN. 2. THE QUANTITIES GIVEN IN THE ENGINEER'S SUMMARY FOR EARTHWORK ARE INTENDED AS A GUIDE FOR THE 2. TRENCH BACKFILL SHALL BE PROVIDED BENEATH AND WITHIN TWO FEET (2') OF ALL EXISTING AND PROPOSED CONTRACTOR IN DETERMINING THE SCOPE OF THE COMPLETED PROJECT. IT IS THE CONTRACTOR'S ALL REFERENCE BY THE STANDARD SPECIFICATIONS TO BASIS OF PAYMENT IS HEREBY DELETED. COMPENSATION TO THE CONTRACTOR SHALL BE MADE ON THE BASIS OF THE UNIT PRICES AND PAY ITEMS RESPONSIBILITY TO DETERMINE ALL MATERIAL QUANTITIES, AND FAMILIARIZE HIMSELF WITH ALL SITE CONDITIONS. PAVEMENTS. TRENCH BACKFILL SHALL BE SELECT GRANULAR BACKFILL CA-6 AND THOROUGHLY COMPACTED INDICATED IN THE SCHEDULE OF PRICES, AND SUCH COMPENSATION SHALL BE CONSIDERED PAYMENT IN FULL IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS. FOR ALL WORK PERFORMED UNDER THIS CONTRACT. EARTH EXCAVATION SHALL INCLUDE, BUT NOT BE LIMITED TO, CLEARING, STRIPPING AND STOCKPILING OF TOPSOIL. REMOVING UNSUITABLE MATERIALS. THE CONSTRUCTION OF EMBANKMENTS. NON-STRUCTURAL FILLS. . THE FOLLOWING REQUIREMENTS SHALL BE ADHERED TO WHEN THE WATER MAIN MUST PASS UNDERNEATH THE THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS AFFECTING THEIR WORK WITH THE ACTUAL FINAL SHAPING AND TRIMMING TO THE LINES, GRADES, AND CROSS SECTIONS SHOWN ON THE PLANS. THIS STORM OR SANITARY SEWER. OR BE PLACED HORIZONTALLY CLOSER THAN TEN FEET (10'): WORK SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE PROVISIONS OF SECTION 200 OF THE CONDITIONS AT THE PROJECT SITE. ANY DISCREPANCIES SHALL BE IMMEDIATELY REPORTED TO THE ENGINEER BEFORE ANY WORK IS PERFORMED; OTHERWISE, THE CONTRACTOR ASSUMES FULL RESPONSIBILITY. IN THE STANDARD SPECIFICATIONS. ALL UNSUITABLE OR EXCESS MATERIAL SHALL BE DISPOSED OF AS DIRECTED BY <u>HORIZONTAL:</u> EVENT OF DISCREPANCIES OR OMISSIONS ON THE PLANS OR SPECIFICATIONS, THE CONTRACTOR SHALL OBTAIN THE ENGINEER. WRITTEN INSTRUCTIONS FROM THE ENGINEER PRIOR TO PROCEEDING WITH ANY PART OF THE WORK AFFECTED. A. WATER MAINS MAY BE LOCATED CLOSER THAN TEN (10') FEET TO A SEWER LINE WHEN: FAILING TO OBTAIN SUCH INSTRUCTION, THE CONTRACTOR WILL BE PROCEEDING AT HIS OWN RISK AND PRIOR TO BEGINNING GRADING OPERATIONS, THE CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH THE SOIL EROSION CONTROL SPECIFICATIONS. THE INITIAL ESTABLISHMENT OF EROSION CONTROL AND THE PLACEMENT 1) LOCAL CONDITIONS PREVENT A LATERAL SEPARATION OF TEN (10') FEET; AND OF FILTER FENCING, ETC., TO PROTECT ADJACENT PROPERTY SHALL OCCUR BEFORE GRADING BEGINS, AND !. ALL WORK PERFORMED UNDER THIS CONTRACT SHALL BE GUARANTEED AGAINST ALL DEFECTS IN MATERIALS SHALL BE IN ACCORDANCE WITH THE SOIL EROSION CONTROL SEQUENCING SCHEDULE. 2) THE WATER MAIN INVERT IS AT LEAST EIGHTEEN (18") INCHES ABOVE THE CROWN OF THE SEWER; AND WORKMANSHIP BY THE CONTRACTOR. 5. TOPSOIL EXCAVATED SHALL BE STOCKPILED ON THE SITE IN AREAS DESIGNATED BY THE ENGINEER UNTIL SUCH BEFORE ACCEPTANCE BY THE OWNER AND FINAL PAYMENT, ALL WORK SHALL BE OBSERVED AND APPROVED BY TIME THAT THE TOPSOIL CAN BE USED FOR FINAL GRADING. THE OWNER OR HIS REPRESENTATIVE. FINAL PAYMENT WILL BE MADE AFTER ALL OF THE CONTRACTOR'S 3) THE WATER MAIN IS EITHER IN A SEPARATE TRENCH OR IN THE SAME TRENCH ON AN UNDISTURBED 6. PRIOR TO COMMENCEMENT OF GRADING ACTIVITIES, PROTECTIVE FENCING SHALL BE ERECTED AROUND ANY WORK HAS BEEN APPROVED AND ACCEPTED. EARTH SHELF LOCATED TO ONE SIDE OF THE SEWER. TREE DESIGNATED ON THE PLAN TO BE PRESERVED. SAID FENCE SHALL BE PLACED AS SHOWN ON THE PLAN AROUND THE TREE, THE DIAMETER OF WHICH SHALL BE SUCH THAT THE ENTIRE DRIP ZONE (EXTENT OF 6. LINE AND GRADE STAKES WILL BE SET ONE TIME ONLY BY THE ENGINEER AT THE OWNER'S EXPENSE. WHEN IT IS IMPOSSIBLE TO MEET THE ABOVE REQUIREMENT, BOTH THE WATER MAIN AND DRAIN FURTHEST EXTENDING BRANCHES) SHALL BE WITHIN THE FENCE LIMITS. THE EXISTING GRADE WITHIN THE CONTRACTORS SHALL NOTIFY THE ENGINEER THAT STAKES WILL BE NEEDED AT LEAST TWO (2) WORKING DAYS OR SEWER SHALL BE CONSTRUCTED OF SLIP-ON OR MECHANICAL JOINT CAST OR DUCTILE IRON PIPE FENCED AREA SHALL NOT BE DISTURBED. IN ADVANCE OF STARTING THEIR WORK. IT SHALL BE THE RESPONSIBILITY OF EACH CONTRACTOR TO PROTECT OR PVC PIPE EQUIVALENT TO WATER MAIN STANDARDS OF CONSTRUCTION. THE DRAIN OR SEWER STAKES PROVIDED FOR HIS USE AND TO REPORT TO THE OWNER'S SUPERINTENDENT ANY SPECIFIC INSTANCES SHALL BE PRESSURE TESTED TO THE MAXIMUM EXPECTED SURCHARGE HEAD BEFORE BACKFILLING. 7. THE CONTRACTOR SHALL USE CARE IN GRADING NEAR TREES, SHRUBS, AND BUSHES WHICH ARE NOT TO BE OF DESTROYING STAKES AND/OR MONUMENTS PROVIDED. REMOVED SO AS NOT TO CAUSE INJURY TO ROOTS OR TRUNKS. <u>VERTICAL:</u> WHEN THE PLANS INCLUDE INFORMATION PERTAINING TO THE LOCATION OF UNDERGROUND UTILITY FACILITIES, 8. THE CONTRACTOR SHALL USE CARE IN GRADING OR EXCAVATING NEAR ANY AND ALL EXISTING FEATURES WHICH SUCH INFORMATION REPRESENTS ONLY THE OPINION OF THE ENGINEER AS TO THE LOCATION OF SUCH A. A WATER MAIN SHALL BE SEPARATED FROM A SEWER SO THAT ITS INVERT IS A MINIMUM OF ARE NOT INDICATED ON THE PLAN TO BE REMOVED. ANY DAMAGE DONE TO THESE EXISTING FEATURES BY UTILITIES AND IS ONLY INCLUDED FOR THE CONVENIENCE OF THE CONTRACTOR. THE ENGINEER AND OWNER EIGHTEEN (18) INCHES ABOVE THE CROWN OF THE DRAIN OR SEWER WHENEVER WATER MAINS THE CONTRACTOR'S OPERATIONS SHALL BE REPAIRED BY HIM AT HIS OWN EXPENSE. ASSUME NO RESPONSIBILITY WHATEVER IN RESPECT TO THE SUFFICIENCY OR ACCURACY OF THE INFORMATION CROSS STORM SEWERS, SANITARY SEWERS, OR SEWER SERVICE CONNECTIONS. THE VERTICAL SHOWN ON THE PLANS RELATIVE TO THE LOCATION OF UNDERGROUND UTILITY FACILITIES OR THE MANNER IN SEPARATION SHALL BE MAINTAINED FOR THAT PORTION OF THE WATER MAIN LOCATED WITHIN 9. UNSUITABLE MATERIAL ENCOUNTERED IN EXCAVATING SHALL BE REMOVED AND REPLACED WITH SUITABLE WHICH THEY ARE TO BE REMOVED OR ADJUSTED. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO TEN (10) FEET HORIZONTALLY OF ANY SEWER OR DRAIN CROSSED. A LENGTH OF WATER MAIN MATERIAL TO THE LIMITS APPROVED BY THE ENGINEER. DETERMINE THE ACTUAL LOCATION OF ALL SUCH FACILITIES. HE SHALL ALSO OBTAIN FROM THE RESPECTIVE PIPE SHALL BE CENTERED OVER THE SEWER TO BE CROSSED WITH JOINTS EQUIDISTANT UTILITY COMPANIES DETAILED INFORMATION RELATIVE TO THE LOCATION OF THEIR FACILITIES AND THE WORKING FROM THE SEWER OR DRAIN. 10. THE GRADING OPERATIONS ARE TO BE CLOSELY SUPERVISED AND INSPECTED, PARTICULARLY DURING THE SCHEDULE OF THE UTILITY COMPANIES FOR REMOVING OR ADJUSTING THEM. REMOVAL OF UNSUITABLE MATERIAL BY THE SOILS ENGINEER OR HIS REPRESENTATIVE. ALL TESTING. B. BOTH THE WATER MAIN AND SEWER SHALL BE CONSTRUCTED OF SLIP-ON OR MECHANICAL INSPECTION, AND SUPERVISION OF SOIL QUALITY, UNSUITABLE REMOVAL, AND ITS REPLACEMENT AND OTHER THE CONTRACTOR AGREES TO INDEMNIFY AND HOLD THE MUNICIPALITY, OWNER, AND ENGINEER HARMLESS JOINT CAST OR DUCTILE IRON PIPE, OR PVC PIPE EQUIVALENT TO WATER MAIN STANDARDS OF SOILS RELATED OPERATIONS SHALL BE THE RESPONSIBILITY OF THE SOILS ENGINEER. FROM ALL LIABILITY AND EXPENSES INCLUDING THE COST OF DEFENDING ACTIONS ARISING OUT OF THE CONSTRUCTION WHEN: PERFORMANCE OF THE WORK OR OUT OF ANY CLAIM BY ANY SUBCONTRACTOR OR ANYONE WHO FURNISHES 11. THE GRADING AND CONSTRUCTION OF THE SITE IMPROVEMENTS SHALL NOT CAUSE PONDING OF STORM WATER. MATERIAL OR LABOR. ALL TRIBUTARY OFF—SITE AREAS SHALL BE GRADED TO ALLOW POSITIVE DRAINAGE AT ALL TIMES DURING 1) IT IS IMPOSSIBLE TO OBTAIN THE PROPER VERTICAL SEPARATION AS CONSTRUCTION. DESCRIBED IN (A) ABOVE; OR WHENEVER PERFORMANCE OF WORK IS INDICATED ON THE PLANS AND NO PAY ITEM IS INCLUDED IN THE CONTRACT FOR PAYMENT, THE WORK SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT, AND NO 12. THE PROPOSED GRADING ELEVATIONS SHOWN ON THE PLANS ARE FINISHED GRADES. A MINIMUM OF SIX 2) THE WATER MAIN PASSES UNDER A SEWER OR DRAIN. ADDITIONAL COMPENSATION WILL BE MADE. INCHES (6") OF TOPSOIL IS TO BE PLACED BEFORE FINISHED GRADE ELEVATIONS ARE ACHIEVED. 10. WHENEVER, DURING CONSTRUCTION OPERATIONS, ANY LOOSE MATERIAL IS DEPOSITED IN THE FLOW LINE OF C. A VERTICAL SEPARATION OF EIGHTEEN (18) INCHES BETWEEN THE INVERT OF THE SEWER OR DRAIN 13. THE SURFACE VEGETATION, TOPSOIL, AND ANY SOFT UNDERLYING SOIL SHOULD BE STRIPPED FROM ALL AREAS GUTTERS, DRAINAGE STRUCTURES, DITCHES, ETC., SUCH THAT THE NATURAL FLOW LINE OF WATER IS AND THE CROWN OF THE WATER MAIN SHALL BE MAINTAINED WHERE A WATER MAIN CROSSES OBSTRUCTED, THIS LOOSE MATERIAL SHALL BE REMOVED AT THE CLOSE OF EACH WORKING DAY BY THE THAT WILL RECEIVE CLAY FILL AND SHALL BE DONE IN A MANNER WHICH WILL MINIMIZE SOIL EROSION AND UNDER A SEWER. SUPPORT THE SEWER OR DRAIN LINES TO PREVENT SETTLING AND BREAKING SHALL BE IN ACCORDANCE WITH THE PLANS. RESPONSIBLE PARTY. AT THE CONCLUSION OF CONSTRUCTION OPERATIONS, ALL DRAINAGE STRUCTURES AND FLOW LINES SHALL BE FREE FROM DIRT AND DEBRIS. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE 14. FINE GRADING FOR PROPOSED YARD/OPEN SPACE AREAS SHALL BE WITHIN A TOLERANCE OF PLUS OR MINUS D. CONSTRUCTION SHALL EXTEND ON EACH SIDE OF THE CROSSING UNTIL THE PERPENDICULAR DISTANCE ONE TENTH OF A FOOT (0.1') OF DESIGN ELEVATIONS. FROM THE WATER MAIN TO THE SEWER OR DRAIN LINE IS AT LEAST TEN (10) FEET. 11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF ADEQUATE SIGNS, TRAFFIC CONTROL DEVICES, AND WARNING DEVICES TO INFORM AND PROTECT THE PUBLIC DURING ALL PHASES 15. UPON COMPLETION OF THE SURFACE IMPROVEMENTS, THE EXCAVATION CONTRACTOR SHALL RESPREAD A 4. THE COST OF ALL REQUIRED TESTING ON UNDERGROUND IMPROVEMENTS SHALL BE CONSIDERED OF CONSTRUCTION. ADEQUATE LIGHTING SHALL BE MAINTAINED FROM DUSK TO DAWN AT ALL LOCATIONS SIX-INCH (6") LAYER OF TOPSOIL ON ALL DESIGNATED LANDSCAPE AREAS, PARKWAYS AND OTHER INCIDENTAL TO THE CONSTRUCTION COST OF THAT IMPROVEMENT. WHERE CONSTRUCTION OPERATIONS WARRANT, OR AS DESIGNATED BY THE ENGINEER OR MUNICIPALITY. ALL NON-STRUCTURAL AREAS DISTURBED BY CONSTRUCTION. TRAFFIC CONTROL WORK SHALL BE DONE IN ACCORDANCE WITH THE I.D.O.T. "MANUAL ON UNIFORM TRAFFIC NO STRUCTURE MAY HAVE MORE THAN EIGHT INCHES (8") OF PRECAST CONCRETE ADJUSTING RINGS. CONTROL DEVICES". 16. SOIL BORING REPORTS, AVAILABLE AT THE OFFICE OF THE ENGINEER AND THE OWNER, ARE SOLELY FOR THE INFORMATION AND GUIDANCE OF THE CONTRACTORS. THE OWNER AND ENGINEER MAKE NO REPRESENTATION <u>WATER MAIN:</u> OR WARRANTY REGARDING THE INFORMATION CONTAINED IN THE BORING LOGS. THE CONTRACTOR SHALL MAKE 12. REMOVED PAVEMENT, SIDEWALK, CURB AND GUTTER, ETC., SHALL BE DISPOSED OF BY THE CONTRACTOR AT HIS OWN EXPENSE AT LOCATIONS APPROVED BY THE ENGINEER. IF ON-SITE DISPOSAL IS NOT FEASIBLE. THE HIS OWN INVESTIGATIONS AND SHALL PLAN HIS WORK ACCORDINGLY. WATER MAIN AND FITTINGS SHALL BE DUCTILE IRON PIPE (CLASS 52) CONFORMING TO ASA A21.51, WITH CONTRACTOR SHALL BE RESPONSIBLE FOR HAULING AND DISPOSAL OFFSITE AT HIS OWN EXPENSE. "PUSH-ON" JOINTS CONFORMING TO ASA A21.11. PIPE SHALL BE CEMENT-LINED TO CONFORM WITH ASA 17. EACH CONTRACTOR SHALL REMOVE FROM THE SITE ANY AND ALL MATERIALS AND DEBRIS WHICH RESULT FROM A21.4 OR POLYVINYL CHLORIDE (PVC) PIPE, SDR 21 CONFORMING TO AWWA C-900 AND C-905 STANDARDS HIS CONSTRUCTION OPERATIONS AT NO ADDITIONAL COST TO THE OWNER. 13. WHERE OVERHANGING BRANCHES INTERFERE WITH OPERATIONS OF CONSTRUCTION. SAID BRANCHES SHALL BE WITH ELSTOMERIC JOINTS CONFORMING TO ASTM D-3139. THE RUBBER GASKETS SHALL CONFORM TO ASTM TRIMMED AND SEALED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS, AND THE COST SHALL BE F477 STANDARDS. ALL FITTINGS SHALL BE DUCTILE IRON PIPE CONFORMING TO ANSI A21.10 OR A21.11. INCIDENTAL TO THE CONTRACT. TREES SHALL BE REMOVED ONLY AFTER RECEIVING APPROVAL OF THE OWNER. CONTRACTOR SHALL INSTALL UTILITY MARKING TAPE ALONG THE CENTERLINE OF THE ENTIRE PIPELINE. THE OWNER SHALL DESIGNATE THOSE TREES WHICH ARE TO BE REMOVED. A CONTRACTOR REMOVING TREES WITHOUT THE OWNER'S APPROVAL WILL BE RESPONSIBLE FOR REPLACEMENT OF SAID TREE(S) AS DIRECTED BY 2. ALL DUCTILE IRON WATER MAIN SHALL HAVE FOUR—INCH (4") GRANULAR BEDDING (1/4" TO 3/4" GRADATION) THE OWNER AT THE CONTRACTOR'S EXPENSE. EXTENDED TO THE SPRINGLINE OF THE PIPE. COST OF BEDDING SHALL BE CONSIDERED INCIDENTAL TO THE UNIT PRICE OF THE PIPE. 14. ALL EXISTING TRAFFIC SIGNS, STREET SIGNS, ETC., WHICH INTERFERE WITH CONSTRUCTION OPERATIONS AND ARE NOT NOTED FOR REMOVAL OR DISPOSAL SHALL BE REMOVED AND RESET BY THE CONTRACTOR AT 3. THE CONTRACTOR SHALL PROVIDE THE ENGINEER WITH A TABULAR LISTING OF EACH AND EVERY SERVICE LOCATIONS AS DESIGNATED BY THE ENGINEER. THIS SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT CONNECTION AND THEIR LOCATIONS RELATIVE TO PERMANENT FIXED OBJECTS SUCH AS MANHOLES. FIRE AND NO ADDITIONAL COMPENSATION WILL BE MADE. DAMAGE TO THESE ITEMS SHALL BE REPAIRED BY THE HYDRANTS, STREET LIGHTS, ETC. EACH SERVICE CONNECTION SHALL BE ACCURATELY LOCATED BY A SERIES CONTRACTOR AT HIS OWN EXPENSE. ALL SIGNS NOT REQUIRED TO BE RESET SHALL BE DELIVERED TO THE OF THREE (3) PRECISE INTERSECTING LOCATION MEASUREMENTS. THE DEPTH AS MEASURED FROM FINISHED VILLAGE. CITY. OR COUNTY AS APPROPRIATE. IN ADDITION. ALL MAIL BOXES THAT INTERFERE WITH CONSTRUCTION SHALL BE SIMILARLY RELOCATED AT NO ADDITIONAL COST. GRADE SHALL ALSO BE PROVIDED. 4. ALL WATER MAINS SHALL HAVE A MINIMUM OF FIVE AND ONE—HALF FEET (5-1/2') COVER MEASURED FROM 15. ALL FIELD TILE ENCOUNTERED DURING CONSTRUCTION OPERATIONS SHALL BE CONNECTED TO THE PROPOSED STORM SEWER OR EXTENDED TO OUTLET INTO A PROPOSED DRAINAGEWAY OR POND. IF THIS CANNOT BE THE TOP OF THE MAIN TO FINISHED GRADE. ACCOMPLISHED, THEN IT SHALL BE REPAIRED WITH NEW PIPE, OF A SIZE AND MATERIAL APPROVED BY THE 5. WATER MAIN FITTINGS SHALL BE CONSIDERED INCIDENTAL TO THE UNIT PRICE OF THE PIPE. ENGINEER, AND RESTORED TO AN ACCEPTABLE OPERATING CONDITION. A RECORD OF THE LOCATION OF ALL FIELD TILE FOR ON—SITE DRAIN PIPE ENCOUNTERED SHALL BE KEPT BY THE CONTRACTOR AND TURNED OVER TO THE ENGINEER UPON COMPLETION OF THE PROJECT. THE COST OF THIS WORK SHALL BE CONSIDERED AS 6. FIRE HYDRANTS SHALL BE THE MUNICIPALITY'S STANDARD WITH AUXILIARY VALVES AND BOXES. HYDRANTS INCIDENTAL TO THE CONTRACT AND NO ADDITIONAL COMPENSATION WILL BE MADE. SHALL BE LOCATED THREE FEET (3') FROM THE BACK OF CURB TO THE STREET SIDE PORT CAP, AND AS SHOWN ON THE PLANS. 16. EACH CONTRACTOR SHALL REMOVE FROM THE SITE ANY AND ALL MATERIALS AND DEBRIS WHICH RESULT FROM HIS CONSTRUCTION OPERATIONS AT NO ADDITIONAL COST TO THE OWNER. 7. VALVES SHALL BE "MUELLER" OR APPROVED EQUAL AND INSTALLED IN PRE-CAST CONCRETE VALVES. 17. THE ENGINEER AND OWNER ARE NOT RESPONSIBLE FOR THE CONSTRUCTION MEANS. METHODS. TECHNIQUES. 8. ALL FITTINGS, TEES, BENDS, ETC. NECESSARY FOR THE CONSTRUCTION OF THE WATER MAIN SHALL BE SEQUENCES OR PROCEDURES, TIME OF PERFORMANCE, PROGRAMS, OR ANY SAFETY PRECAUTIONS USED BY CONSIDERED INCIDENTAL TO THE CONTRACT UNIT PRICE FOR WATER MAIN. THE CONTRACTOR IS RESPONSIBLE THE CONTRACTOR. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR EXECUTION OF HIS WORK IN ACCORDANCE TO FURNISH ALL FITTINGS, TEES, BENDS, ETC. NECESSARY TO COMPLETE THE WATER MAIN CONSTRUCTION IN WITH THE CONTRACT DOCUMENTS. ACCORDANCE WITH THE PLANS, WITH THE UNDERSTANDING THAT SUCH ITEMS MAY NOT BE LABELED ON THE 18. ELECTRIC, TELEPHONE, NATURAL GAS, AND OTHER UTILITY COMPANIES HAVE UNDERGROUND AND/OR OVERHEAD SERVICE FACILITIES IN THE VICINITY OF THE PROPOSED WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR 9. THRUST BLOCKING SHALL BE INSTALLED ON WATERMAINS AT ALL BENDS, TEES, ELBOWS, ETC. HAVING THE UTILITY COMPANIES LOCATE THEIR FACILITIES IN THE FIELD PRIOR TO CONSTRUCTION AND SHALL ALSO BE RESPONSIBLE FOR THE PRESERVATION OF THESE FACILITIES. THE CONTRACTOR SHALL CALL J.U.L.I.E AT (800) 892-0123 FOR UTILITY LOCATIONS TWO WORKING DAYS PRIOR TO BEGINNING CONSTRUCTION.

19. THE CONTRACTOR SHALL VERIFY WITH THE ENGINEER BEFORE BEGINNING CONSTRUCTION THAT THE PLANS AND SPECIFICATIONS HE HAS BEEN PROVIDED ARE CURRENT.

20. THE CONTRACTOR SHALL KEEP A SET OF "APPROVED" CONSTRUCTION PLANS ON THE JOB SITE. HE SHALL MAINTAIN A LEGIBLE RECORD ON THESE PLANS OF ANY FIELD TILE ENCOUNTERED OR ANY MODIFICATIONS OR ALTERATIONS TO HIS WORK. THESE PLANS AND THIS INFORMATION SHALL BE PROVIDED TO ENGINEER AT THE COMPLETION OF THE CONTRACTORS' WORK AND BEFORE FINAL PAYMENT WILL BE APPROVED.

21. THE CONTRACTOR SHALL NOTIFY THE MUNICIPALITY, THE MUNICIPALITIES ENGINEER, AND GREENGARD, INC. FORTY-EIGHT (48) HOURS PRIOR TO COMMENCING ANY CONSTRUCTION.

SCALE IN FEET

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IN WHOLE OR PART WITHOLIT WRITTEN PERMISSION OF GREENGARD INC

6-6-16

PER LCPW

DATE:

01-19-16 01-19-16

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APPROVED BY:

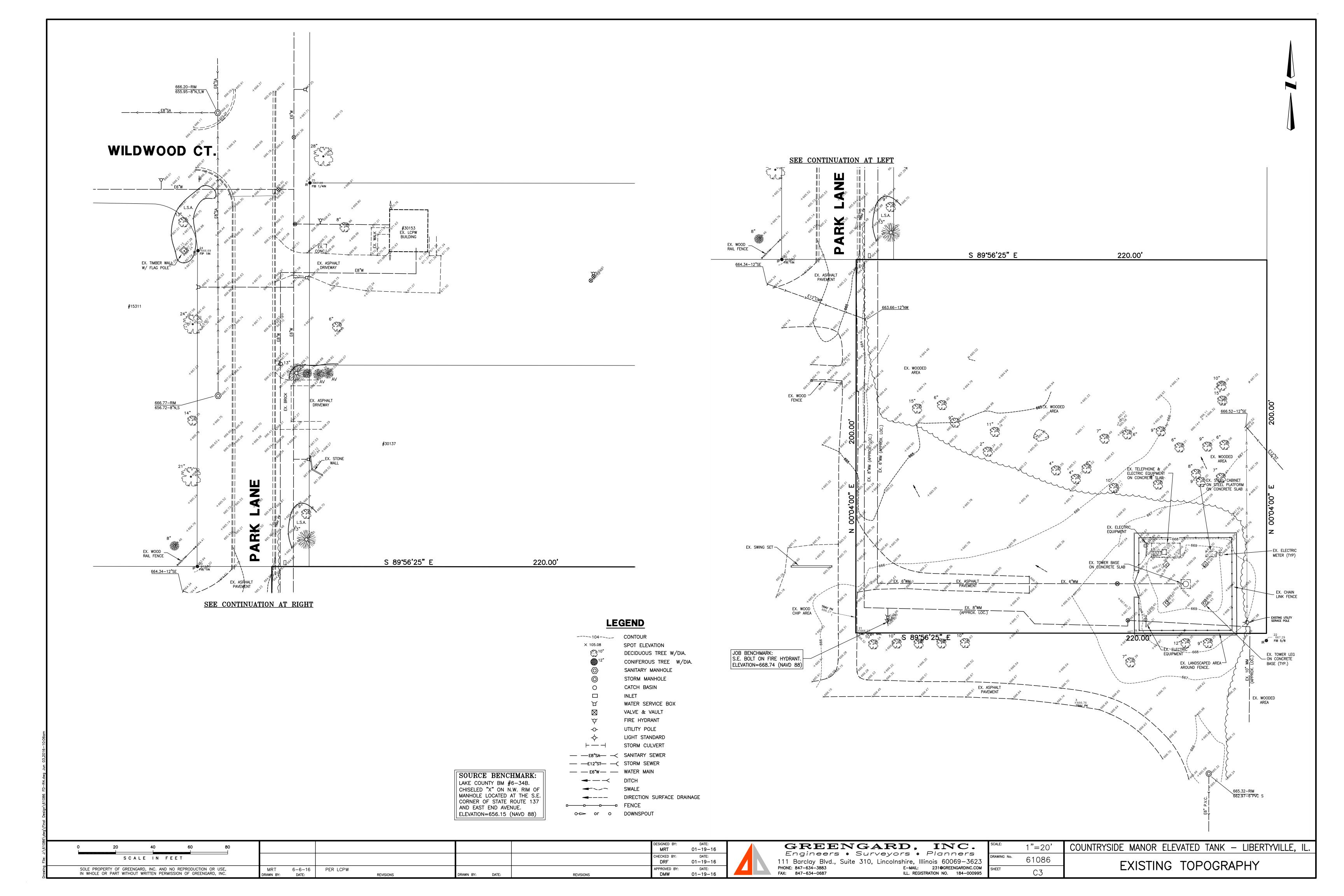
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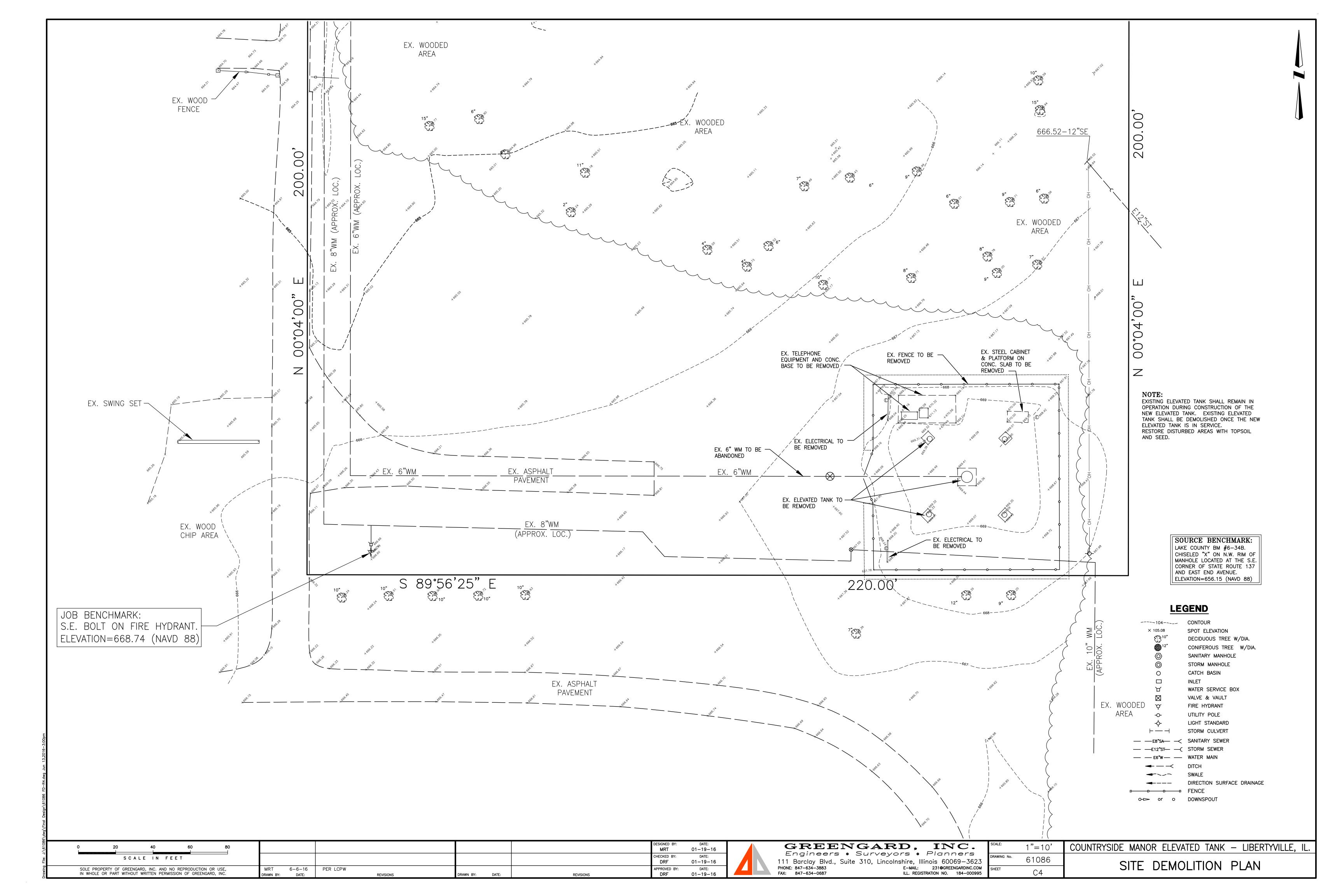
DATE:

01-19-16

GREENGARD, INC. Engineers • Surveyors • Planners 111 Barclay Blvd., Suite 310, Lincolnshire, Illinois 60069-3623 PHONE: 847-634-3883 E-MAIL: 231@GREENGARDINC.COM FAX: 847-634-0687 ILL. REGISTRATION NO. 184-000995

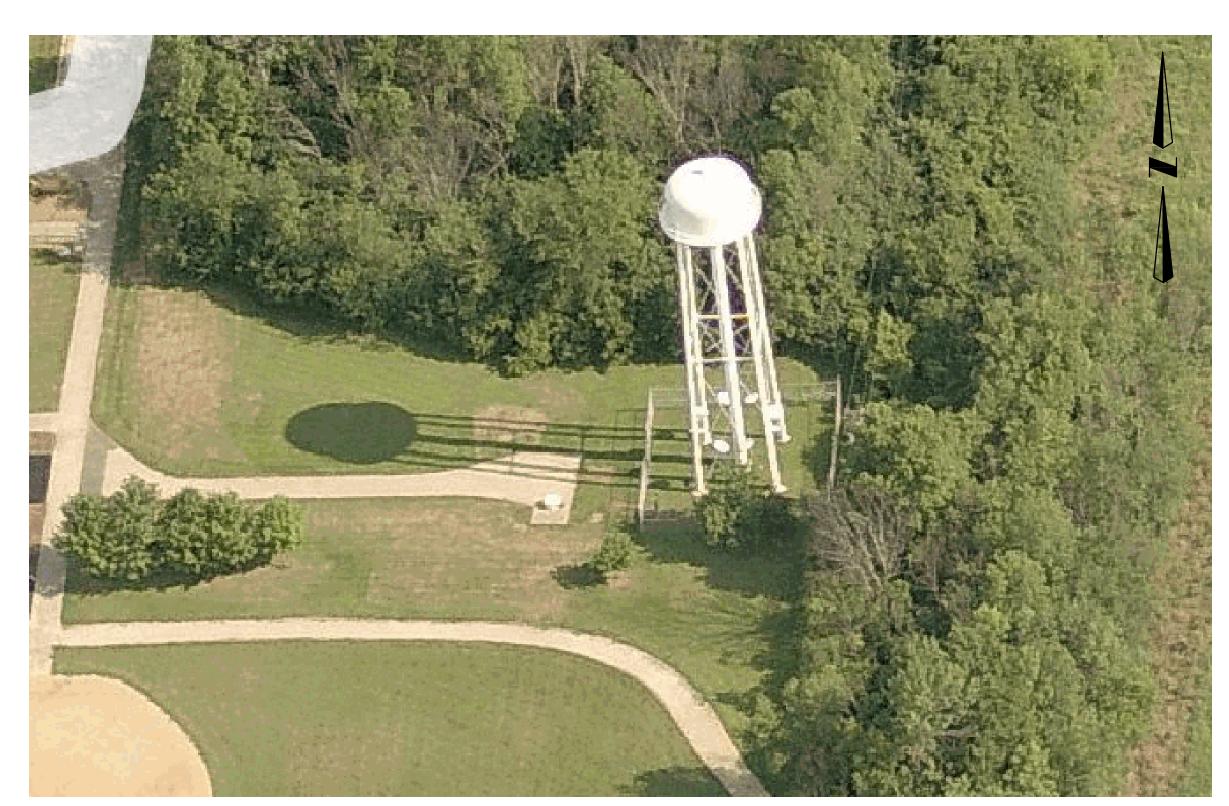
COUNTRYSIDE MANOR ELEVATED TANK - LIBERTYVILLE, IL NONE 61086 STANDARD NOTES



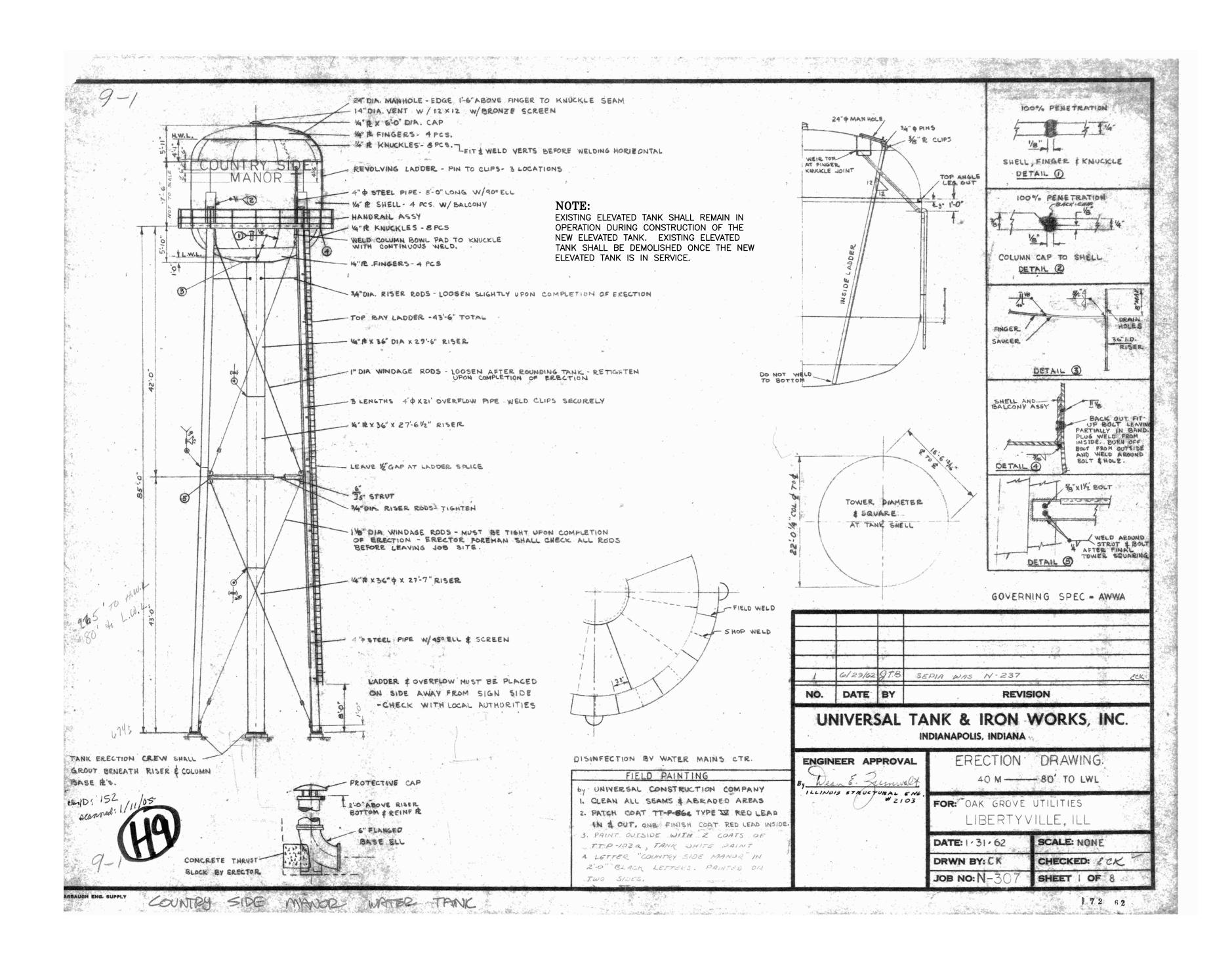




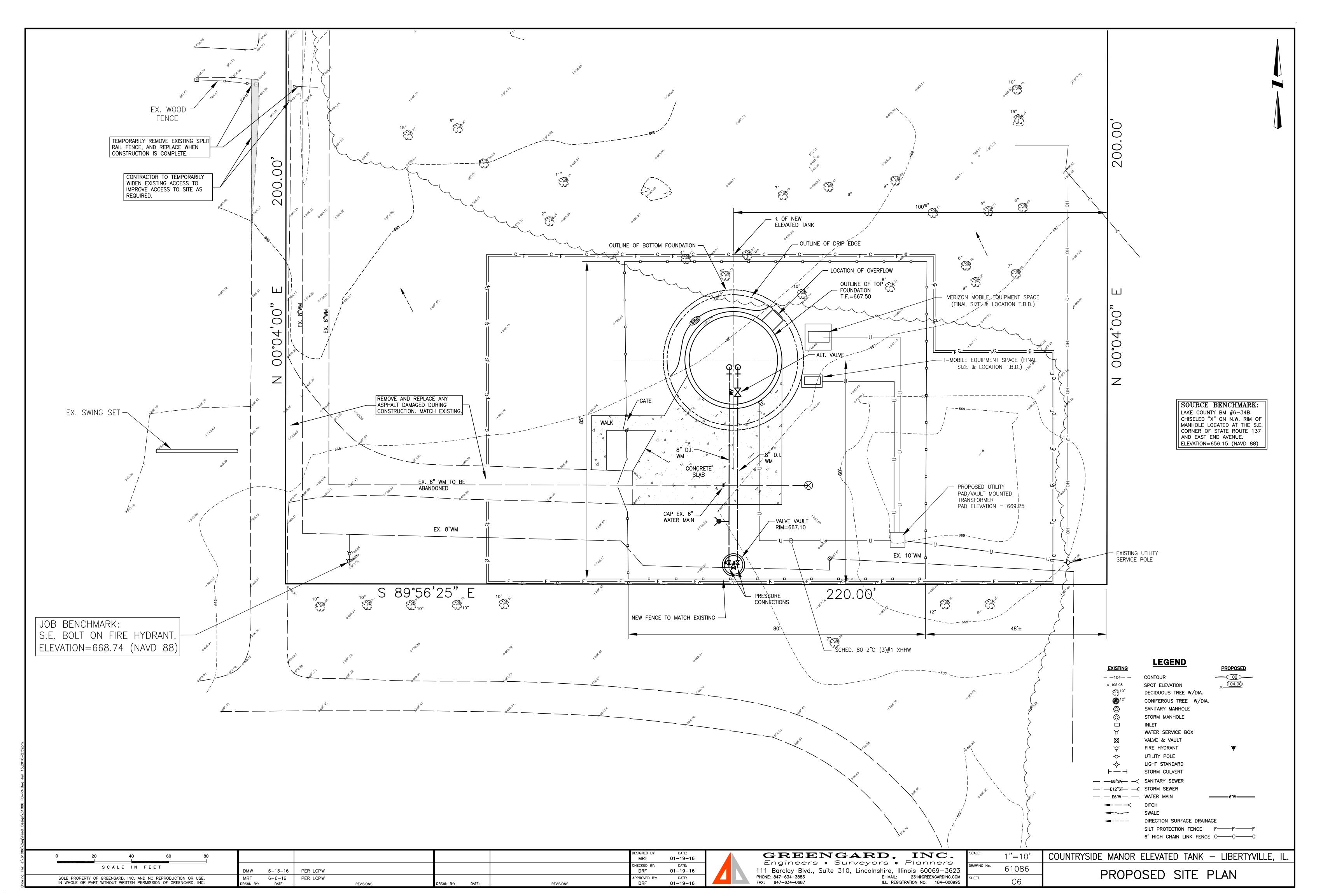
AERIAL VIEW

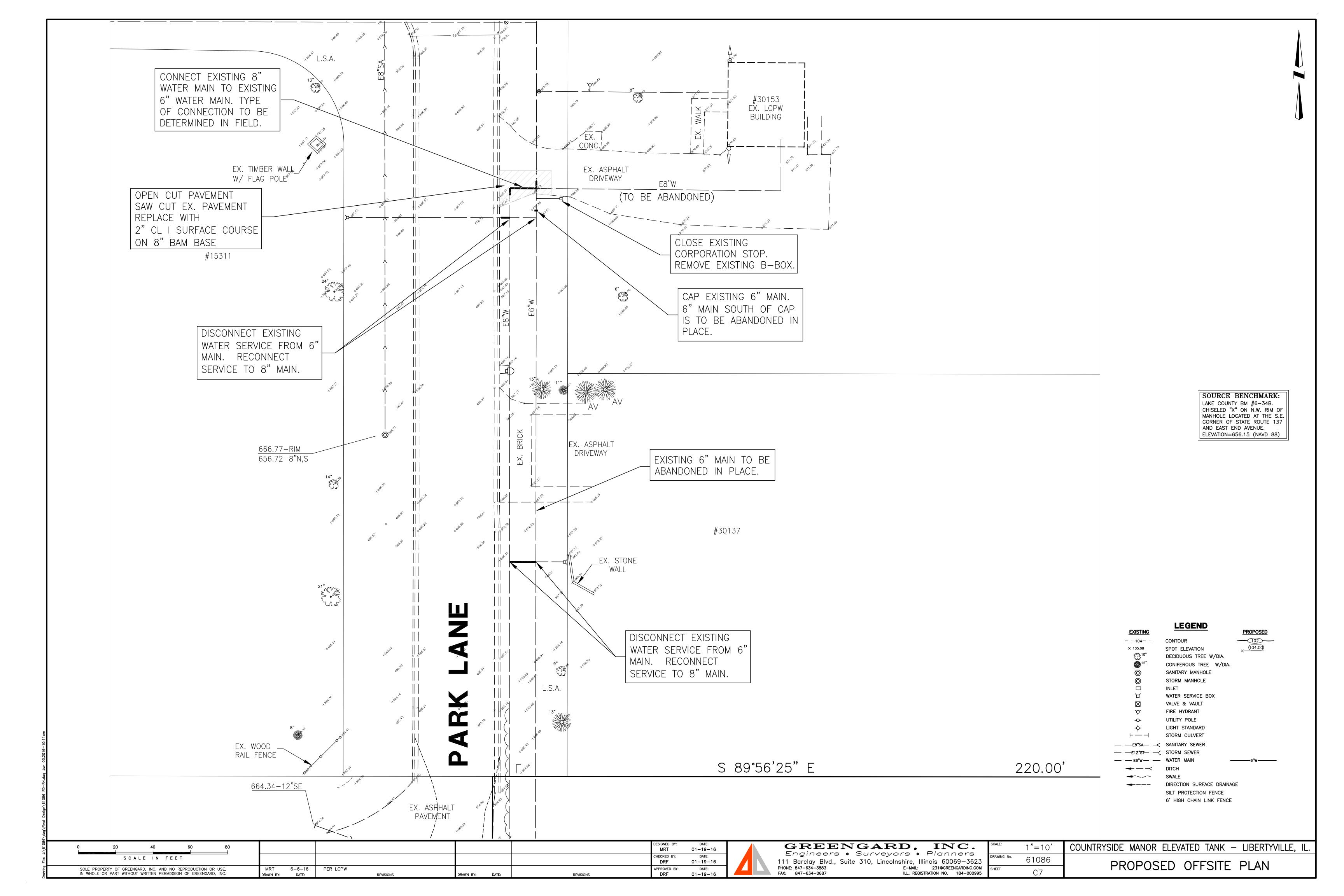


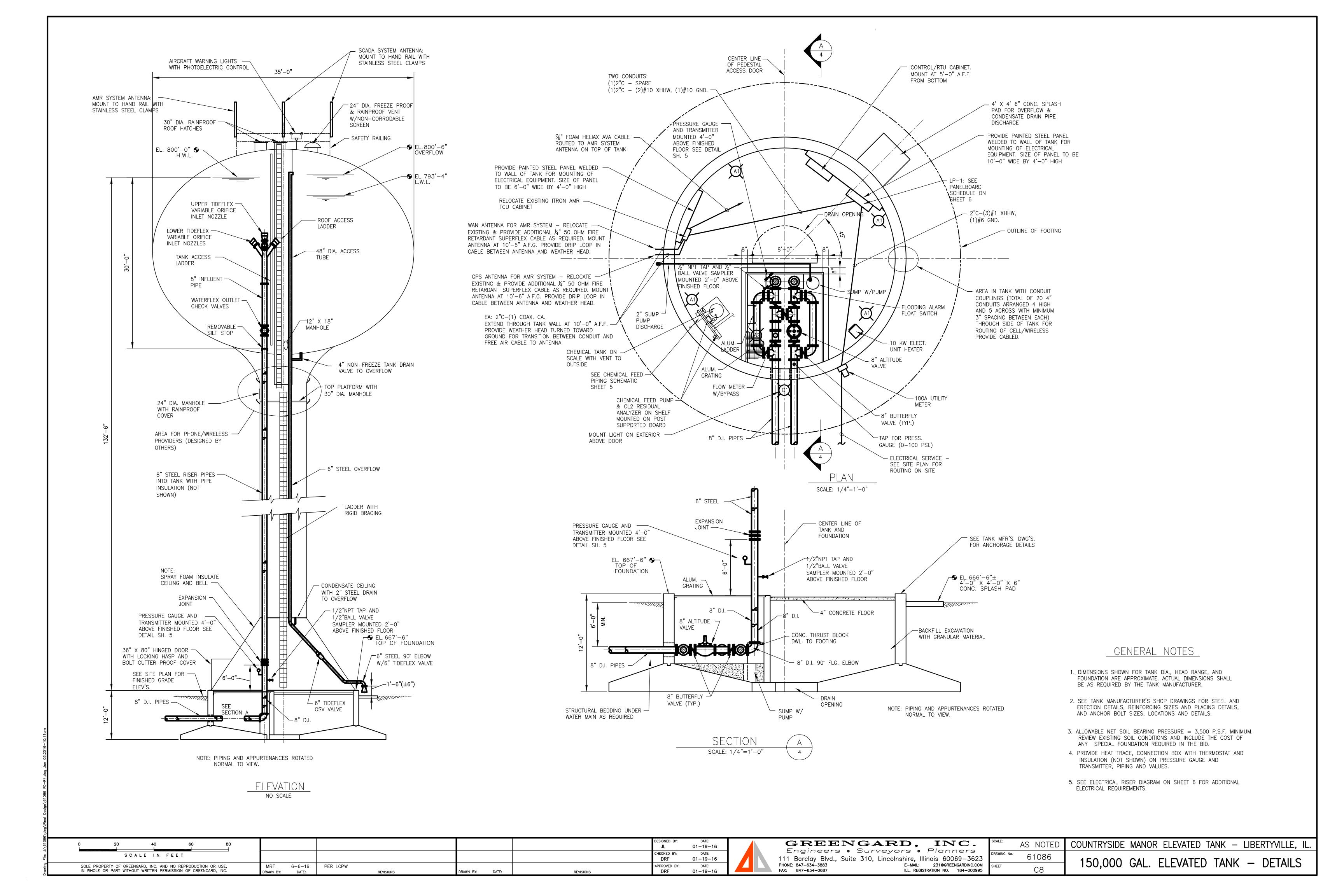
AERIAL OBLIQUE VIEW



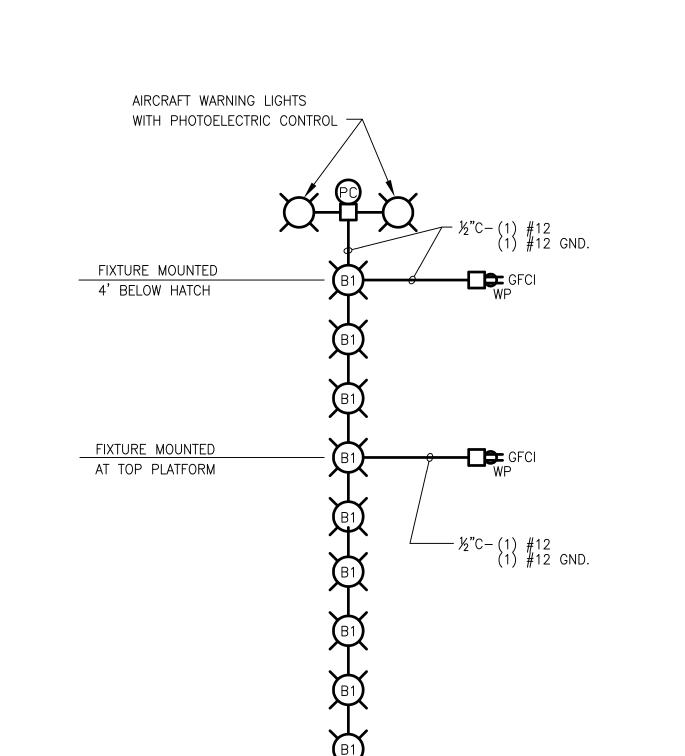
0 20 40 60 80					DESIGNED BY: MRT	DATE: 01-19-16	GREENGARD, INC.	SCALE:	N.T.S.	COUNTRYSIDE MANOR ELEVATED TANK - LIBERTYVILLE, IL.
SCALE IN FEET					CHECKED BY: DRF	DATE: 01-19-16	Engineers • Surveyors • Planners 111 Barclay Blvd., Suite 310, Lincolnshire, Illinois 60069-3623		61086	EXISTING ELEVATED TANK
SOLE PROPERTY OF GREENGARD, INC. AND NO REPRODUCTION OR USE, IN WHOLE OR PART WITHOUT WRITTEN PERMISSION OF GREENGARD, INC.	MRT 6-6-16 DRAWN BY: DATE:	PER LCPW REVISIONS	DRAWN BY: DATE:	REVISIONS	APPROVED BY: DRF	DATE: 01-19-16	PHONE: 847–634–3883 E-MAIL: 231@GREENGARDINC.COM FAX: 847–634–0687 ILL. REGISTRATION NO. 184–000995	SHEET	C5	EXISTING ELEVATED TAIN







						•	LIGHTING FIXTURE SCH	EDULE
NO.	MANUF.	CATALOG NUMBER	VOLTS	INPUT WATTS		LAMPS	MOUNT	REMARKS
A1	RAB	WP3LED55NW	120	57	59	LED	WALL MOUNT 8'-0" A.F.F. FROM BOTTOM OF FIXTURE. PROVIDE STAINLESS STEEL BRACKETS AS REQUIRED TO ATTACH FIXTURE TO TANK WALL AND PROVIDE MINIMUM 3" CLEARANCE FROM INSULATION	LED WALLPACK FIXTURE, SUITABLE FOR WET LOCATIONS, 4000K COLOR TEMPERATURE, DIE-CAST ALUMINUM HOUSING, WHITE FINISH. MOTION SENSOR
A2	RAB	WP3LED55NW	120	57	59	LED	WALL MOUNT 1'-0" BELOW GRATING FROM TOP OF FIXTURE	LED WALLPACK FIXTURE, SUITABLE FOR WET LOCATIONS, 4000K COLOR TEMPERATURE, DIE-CAST ALUMINUM HOUSING, WHITE FINISH. MOTION SENSOR
B1	RAB	VXBRLED26NDG-3/4	120	27	28	LED	WALL MOUNT AS INDICATED ON DRAWINGS	LED VAPORPROOF FIXTURE, SUITABLE FOR WET LOCATIONS, 4000K COLOR TEMPERATURE, AMBIENT TEMPERATURE RANGE -40 TO 104 DEGREE FAHRENHEIT, DIE-CAST ALUMIUM HOUSING, NATURAL SHOT BLASTED ALUMINUM FINISH, 3/4" NPS CONDUIT ENTRY.
C1	RAB	WPLED20NW/PC	120	22	24	LED	WALL MOUNT 6" ABOVE TANK DOOR	LED EXTERIOR DARK SKY APPROVED FIXTURE, SUITABLE FOR WET LOCATIONS, 4000K COLOR TEMPERATURE, AMBIENT TEMPERATURE RANGE -22 TO 122 DEGREE FAHRENHEIT, DIE-CAST ALUMIUM HOUSING, WHITE FINISH, JUCTION BOX MOUNT, INTEGRAL BUTTON PHOTOCELL.



LIGHTING PANELBOARD SCHEDULE

NAME: LP-1

VOLTAGE RATING: 120/240 VOLTS, 1 PHASE, 3 WIRE

BUS RATING: 100 AMPS MAIN BREAKER: **100** AMPS

FEED: **BOTTOM**

LOCATION: WATER TOWER BASE MOUNTING: SURFACE FED FROM: **UTILITY METER**

SPECIAL FEATURES: **NEMA 4X ENCLOSURE** NOTES: MOUNT AT 4'0" AFF FROM BOTTOM

17.30 KVA =

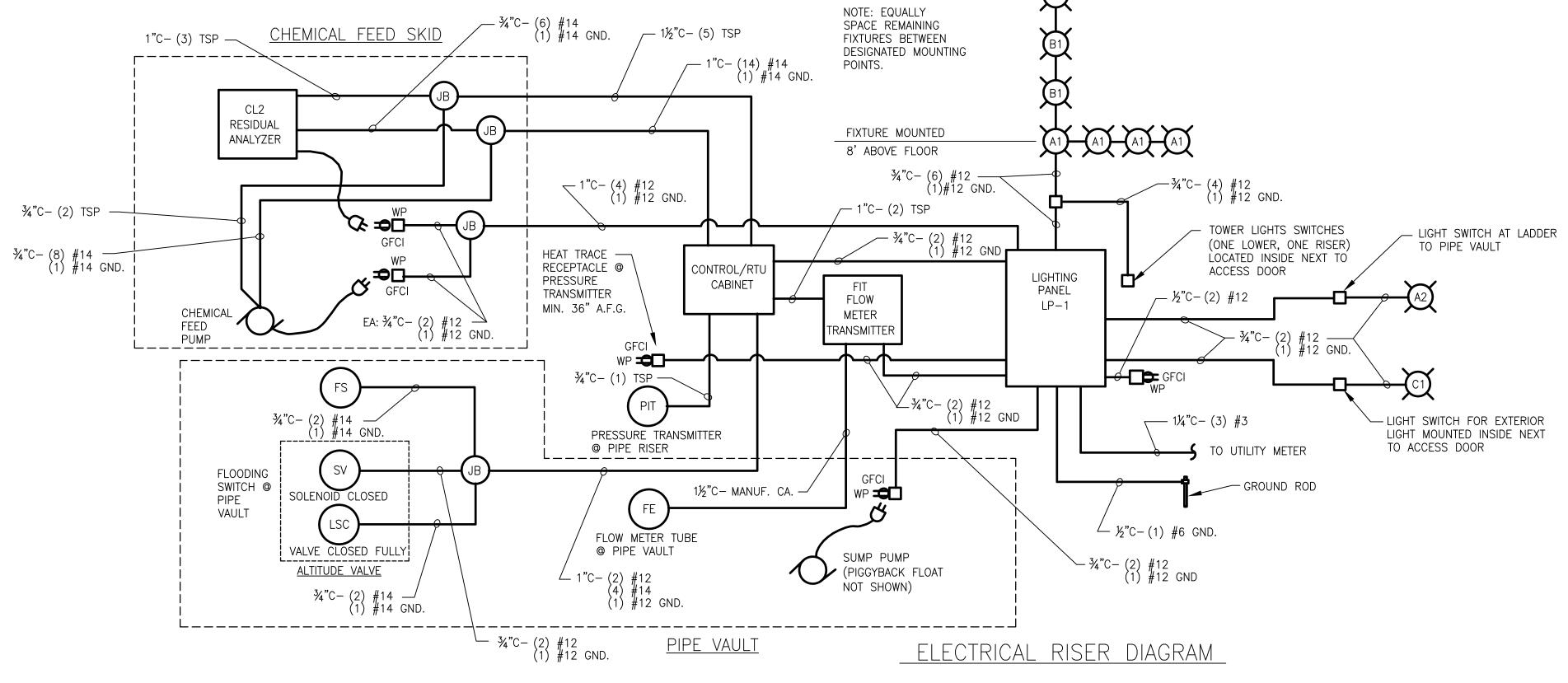
LOAD TYPE	CIRCUIT DESCRIPTION	VA	СКТ	BRKR	L1 L2	BRKR	СКТ	VA	CIRCUIT DESCRIPTION	LOAD TYPE
М	SUMP PUMP	600	1	20 / 1	-A-	20 / 1	2	140	INTERIOR LIGHTS - TOWER	L
Χ	CATHODIC PROTECTION SYSTEM	1,200	3	20 / 1	-B-[20 / 1	4	295	INTERIOR LIGHTS - LOWER LEVEL	L
Χ	CONTROL/RTU CABINET	1,200	5	20 / 1	-A-	20 / 1	6	24	EXTERIOR LIGHTS	L
Χ	ITRON AMR TCU CABINET	1,200	7	20 / 1	-B-	20 / 1	8	540	CONVENIENCE RECEPTACLES	R
R	CHEMICAL FEED PUMP	300	9	20 / 1	-A-	15 / 1	10	300	AIRCRAFT WARNING LIGHTS	L
Х	CHLORINE RESIDUAL ANALYZER	300	11	20 / 1	-B-	/ 1	12		SPACE	
Х	FLOW METER	1,200	13	/ 1	-A-	/ 1	14	5,000	10KW SPACE HEATER	Н
	SPACE		15	/ 1	-B-[/ 1	16	5,000	TORVV SPACE FILATER	Н
	SPACE		17	/ 1	-A-	/ 1	18		SPACE	
	SPACE		19	/ 1	-B-	/ 1	20		SPACE	
	LINE LOADS:	VA(L1	1)				8,535	VA(L2)		

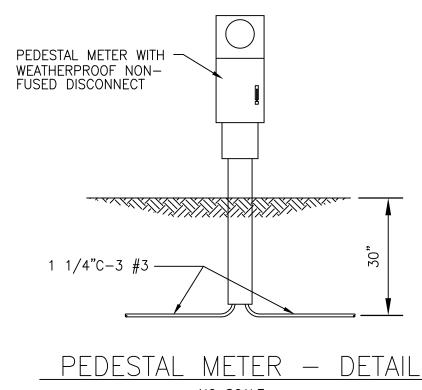
72.1 Amps Average

LOAD CALCULATION:
LOND ON LOOL MICH.

TOTAL LOAD =

20, 12 0, 12002, 111011					
		CONNECTED VA	<u>METHOD</u>	NEC DEMAND	CALC. VA
TOTAL LIGHTING (L) LOAD:	L	759	ALL @	100%	759
TOTAL RECEPTACLE (R) LOAD:	R	840	FIRST 10KVA @	100%	840
			REMAINDER OVER 10KVA	50%	0
TOTAL MOTOR (M) LOAD:	M	600	ALL @	100%	600
	LM	0	125% OF LARGEST	125%	0
TOTAL HVAC (H) LOAD:	Н	10000	ALL @	100%	10000
TOTAL MISCELLANEOUS (X) LOAD:	X	5100	ALL @	100%	5100
TOTAL VA:		17299 VA			17299 V
AVERAGE AMPS @		72 AMPS			72 A l
VOLTAGE PHASE TO PHASE=		240			

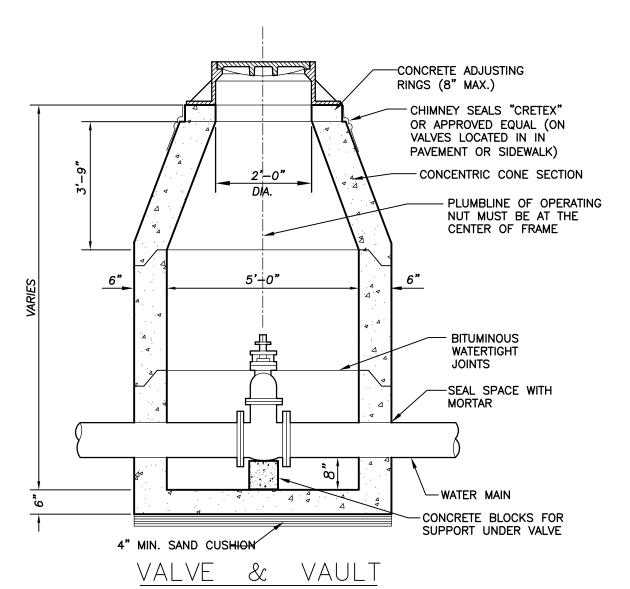




NO SCALE

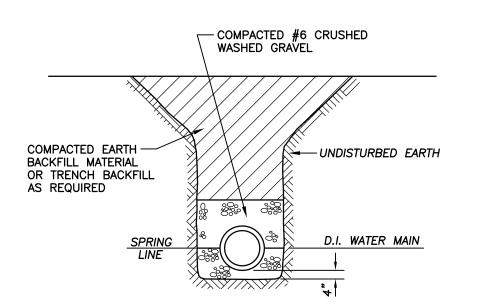
0 20 40 60 80					DESIGNED BY: JL	DATE: 01-19-16
SCALE IN FEET					CHECKED BY: DRF	DATE: 01-19-16
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	PHONE



NOTES:

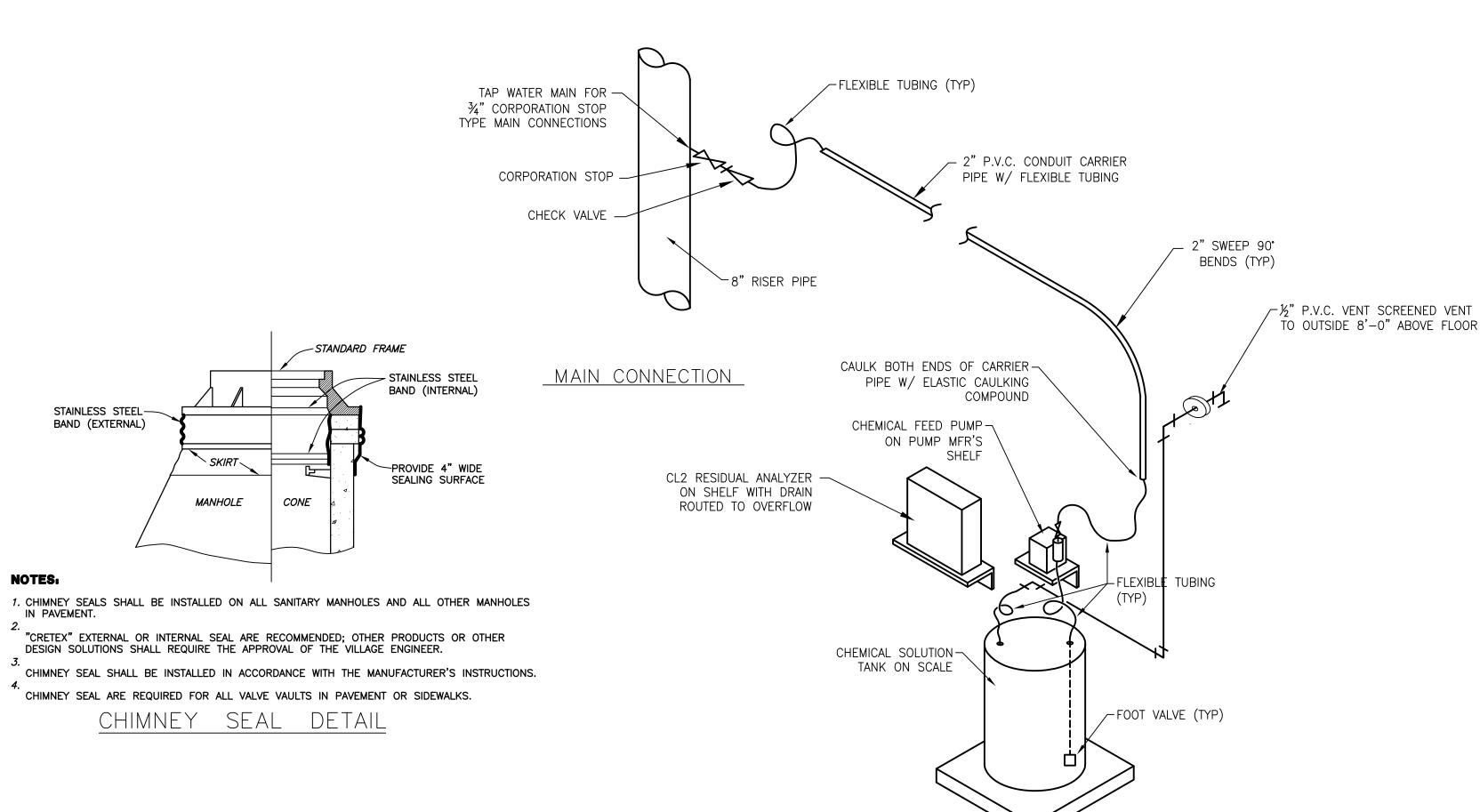
- 1. SEE PLANS FOR LOCATION & DIAMETER OF WATERMAIN.
- 2. PRECAST SECTIONS SHALL CONFORM TO SPECIFICATIONS FOR MANHOLES—ASTM DESIGNATION C-478.
- 3. PRECAST MANHOLE JOINTS SHALL BE CONSTRUCTED WITH BITUMINOUS MASTIC.
- 4. FRAMES, COVERS & MANHOLE STEPS TO BE CAST IRON BY NEENAH FOUNDRY COMPANY, OR APPROVED EQUAL. (PRICE TO BE INCLUDED IN UNIT COST OF STRUCTURE).
- ALL VALVE VAULTS ARE TO HAVE VERTICAL OFFSET CONES INSTALLED SO THAT CENTER OF FRAME IS DIRECTLY ABOVE VALVE OPERATOR.
- 6. PIPE OPENING TO BE CAST INTO WALL.
- 7. FRAME AND GRATE SHALL BE NEENAH # R-1772-C W/ "WATER" CAST INTO LID (OR APPROVED EQUAL).



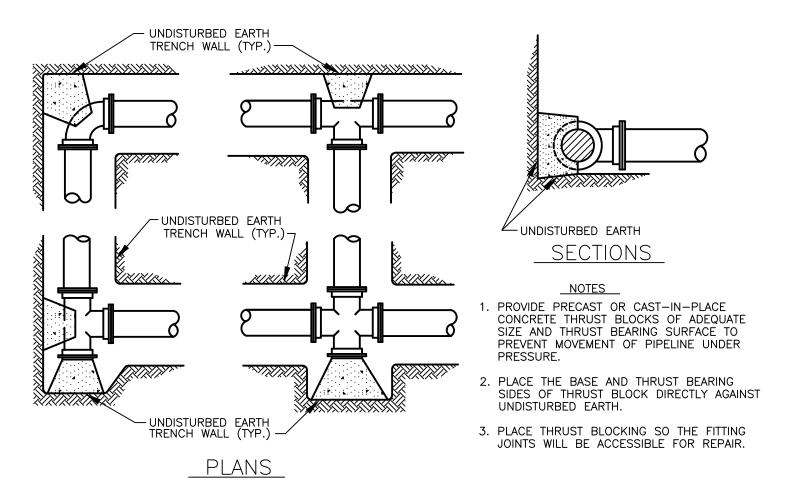
PIPE BEDDING DETAIL

NOTE: 1. MAKE EXCAVATION FOR PIPE BELL SO THAT ALL LOADS ARE CARRIED BY PIPE BARREL ONLY.

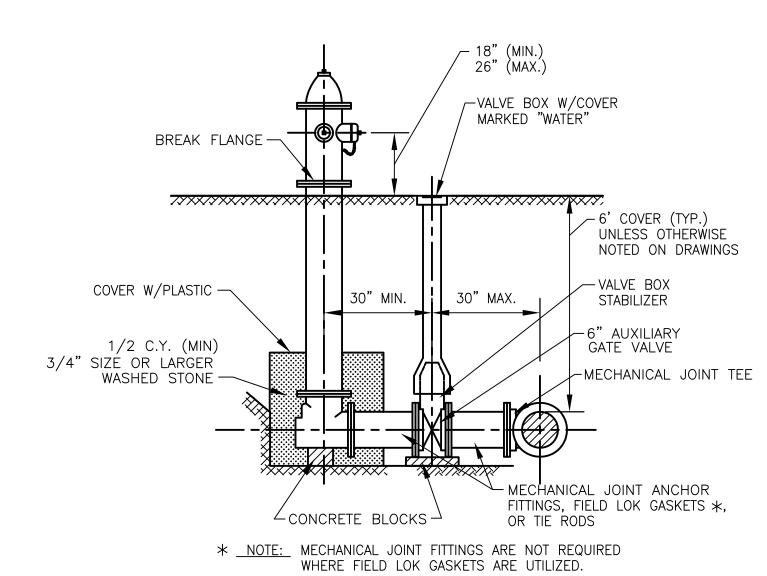
2. WHERE BOTTOM OF TRENCH IS NOT STABLE LARGE SIZE CRUSHED STONE OR GRAVEL, AS APPROVED BY THE ENGINEER SHALL BE PROVIDED.



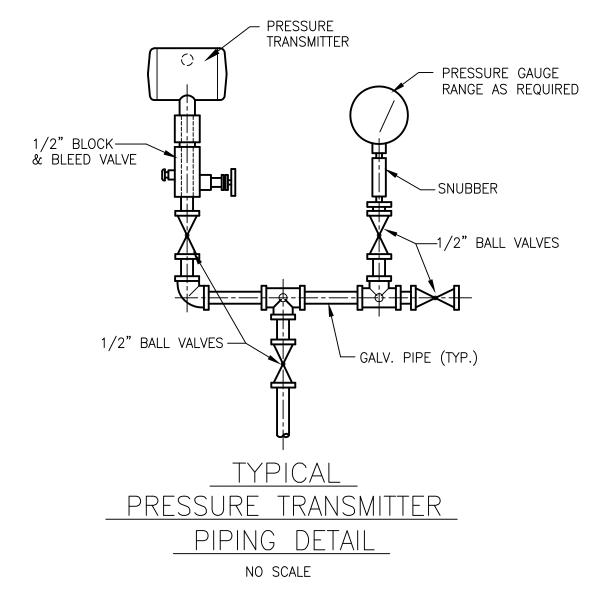
SODIUM HYPOCHLORITE FEED PIPING SCHEMATIC
NO SCALE

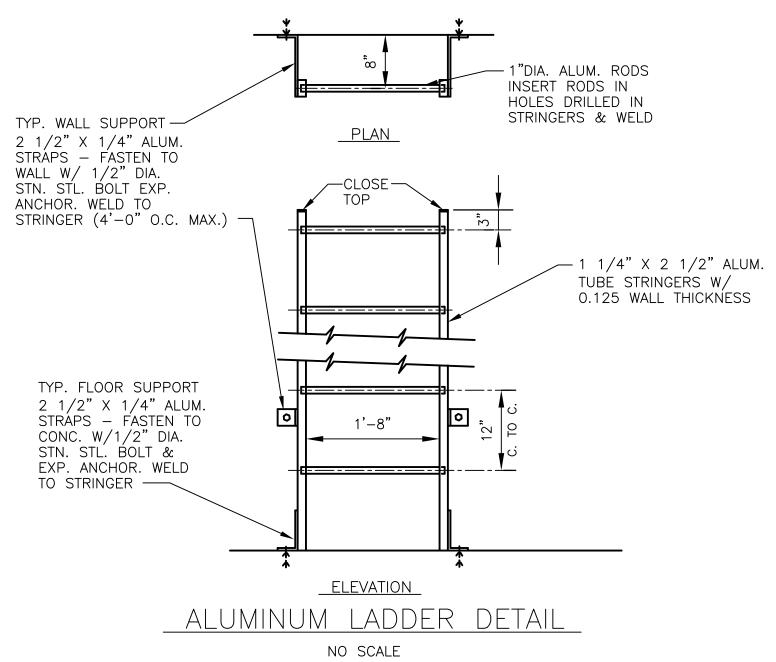


TYPICAL THRUST BLOCK INSTALLATIONS
NO SCALE



STANDARD FIRE HYDRANT INSTALLATION no scale





										_				
_		40											DESIGNED BY:	DATE:
0	20	40	60										MRT	01-19-16
	S C A	LE IN F	FFT										CHECKED BY:	DATE:
													DRF	01-19-16
SOLE PF	OPERTY OF GREENG	ARD, INC. AND	NO REPRODUCTION	OR USE,		MRT	6-6-16	PER LCPW					APPROVED BY:	DATE:
IN WHOL	E OR PART WITHOUT	WRITTEN PERM	ISSION OF GREENG	SARD, INC.	C	DRAWN BY:	DATE:		REVISIONS	DRAWN BY:	DATE:	REVISIONS	DRF	01-19-16

GREENGARD, INC.
Engineers • Surveyors • Planners

111 Barclay Blvd., Suite 310, Lincolnshire, Illinois 60069-3623
PHONE: 847-634-3883
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ILL. REGISTRATION NO. 184-000995

	AS NOTED	COUNTRYSIDE MANOR ELEVATED TANK - LIBERTYVILLE, IL.							
No.	61086	STANDARD DETAILS							
	C10	JIANDARD DETAILS							

- SOIL DISTURBANCE SHALL BE CONDUCTED IN SUCH A MANNER AS TO MINIMIZE EROSION. SOIL STABILIZATION MEASURES SHALL CONSIDER THE TIME OF YEAR, SITE CONDITIONS, AND THE USE OF TEMPORARY OR PERMANENT MEASURES.
- 2. SOIL EROSION AND SEDIMENT CONTROL FEATURES SHALL BE CONSTRUCTED PRIOR TO THE COMMENCEMENT OF UPLAND DISTURBANCE.
- 3. TEMPORARY SOIL STABILIZATION SHALL BE APPLIED TO DISTURBED AREAS WITHIN SEVEN (7) CALENDAR DAYS OF THE END OF ACTIVE HYDROLOGIC DISTURBANCE. PERMANENT STABILIZATION SHALL BE DONE WITHIN FOURTEEN (14) DAYS AFTER COMPLETION OF FINAL GRADING OF THE SOIL.
- 4. ALL STORM SEWER FACILITIES THAT ARE OR WILL BE FUNCTIONING DURING CONSTRUCTION SHALL BE PROTECTED, FILTERED, OR OTHERWISE TREATED TO REMOVE SEDIMENT BY MEANS OF PLACING FILTER FABRIC BETWEEN THE FRAME AND LID.
- 5. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN THIRTY (30) DAYS AFTER FINAL SITE STABILIZATION IS ACHIEVED OR AFTER THE TEMPORARY MEASURES ARE NO LONGER NEEDED. TRAPPED SEDIMENT AND OTHER DISTURBED SOIL AREAS SHALL BE PERMANENTLY
- 6. ALL TEMPORARY AND PERMANENT EROSION CONTROL MEASURES MUST BE MAINTAINED AND REPAIRED AS NEEDED. THE GENERAL CONTRACTOR WILL BE RESPONSIBLE FOR INSPECTION AND REPAIR DURING CONSTRUCTION. THE OWNER WILL BE RESPONSIBLE IF EROSION CONTROL IS REQUIRED AFTER THE CONTRACTOR HAS COMPLETED THE PROJECT.
- 7. THE EROSION CONTROL MEASURES INDICATED ON THE PLANS ARE THE MINIMUM REQUIREMENTS. ADDITIONAL MEASURES MAY BE REQUIRED, AS DIRECTED BY THE ENGINEER OR GOVERNING AGENCY. 8. CONSTRUCTION AND FROSION CONTROL SEQUENCING SHOWN IS GENERAL IN NATURE AND MAY VARY
- DEPENDING ON WEATHER CONDITIONS AND/OR PHASING OF CONSTRUCTION. 9. TEMPORARY AND PERMANENT SEEDING SHALL BE IN ACCORDANCE WITH THE SCHEDULE PROVIDED ON
- 10. CONSTRUCTION AND EROSION CONTROL SEQUENCING:
- 1) INSTALL SOIL EROSION MEASURES.
- 2) INSTALL UNDERGROUND WATER IMPROVEMENTS.
- 3) COMPLETE NECESSARY GRADING FOR WATER TOWER
- BEGIN WATER TOWER CONSTRUCTION.
- 5) COMPLETE WATER TOWER CONSTRUCTION.
- 6) DEMOLITION OF EXISTING WATER TOWER.
- 7) RESPREAD TOPSOIL.

HAVE A SILT FENCE PLACED AROUND THE PERIMETER.

- 8) RESTORE REMAINING DISTURBED AREAS AND PROVIDE ANY LANDSCAPING.
- 1. ALL INLETS, STRUCTURES, PIPES, SWALES AND ROADS SHALL BE KEPT CLEAN AND FREE OF DIRT
- 12. STOCKPILES SHALL HAVE A BERM OR TRENCH AROUND THE CIRCUMFERENCE TO CONTROL SILT. STOCK PILES IN PLACE LONGER THAN 6 WEEKS SHALL BE SEEDED. STOCKPILES SHALL ALSO
- 13. ALL STORM STRUCTURES SHALL HAVE "CATCH-ALL' INLET PROTECTOR OR EQUIVALENT PLACED UNDER THE COVER AS ADDED PROTECTION.
- 14. ALL WATERCOURSES SHALL BE TOTALLY PROTECTED WITH SILT FENCE.
- 15. ADDITIONAL SOIL EROSION CONTROL MEASURES SHALL BE UNDERTAKEN DURING THE COURSE OF CONSTRUCTION. AS NEEDED.
- 16. MAINTAIN SOIL EROSION CONTROL DEVICES THROUGH THE DURATION OF THIS PROJECT.
- 17. REPLACE SOIL EROSION CONTROL DEVICES WITH SOD AND TOPSOIL AT THE COMPLETION OF THE
- 18. THIS PLAN WILL FOLLOW STANDARDS AND RECOMMENDATIONS IN ACCORDANCE WITH THE "STANDARD AND SPECIFICATIONS FOR SOIL, EROSION AND SEDIMENTATION CONTROL." 1987 EDITION, PUBLISHED BY THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY, AND "PROCEDURES AND STANDARDS FOR URBAN SOIL EROSION AND SEDIMENTATION CONTROL". (GREENBOOK. 1981) BY THE "NORTHEASTERN ILLINOIS SOIL EROSION AND SEDIMENTATION CONTROL STEERING COMMITTEE". ALL CONSTRUCTION WILL ADHERE TO THE REQUIREMENTS SET FORTH IN THE IEPA'S NEW CONSTRUCTION SITE ACTIVITIES NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) STORM WATER PERMIT.
- . THE PURPOSE OF THIS PLAN IS TO MINIMIZE AND TO CONTROL THE SOIL EROSION AND RESULTANT SEDIMENTATION. WHICH ARE RELATED TO THE DEVELOPMENT OF THE SITE. ALTHOUGH MOST OF THE MEASURES ARE TEMPORARY IN NATURE, THEY ALL TARGET THE LONG-RANGE CONTROL OF EROSION AND SEDIMENTATION IN DOWNSTREAM AREAS. THE SPECIFIC COMPONENTS OF THIS PLAN ARE DIRECTED TOWARD PUBLIC AREA IMPROVEMENTS. ALL AREAS USED BY THE CONTRACTOR'S OPERATIONS ARE SUBJECT TO THE PROVISIONS OF THIS PLAN. THIS INCLUDES BOTH ACTIVE CUT/FILL ZONES AS WELL AS STOCK PILES AND STAGING AREAS.
- DISTURBED AREAS AND AREAS USED FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION SHALL BE INSPECTED FOR EVIDENCE OF OR THE POTENTIAL FOR POLILITANTS ENTERING THE DRAINAGE SYSTEM. EROSION AND SEDIMENT CONTROL MEASURES IDENTIFIED IN THE PLAN SHALL BE OBSERVED TO ENSURE THAT THEY ARE OPERATING CORRECTLY. DISCHARGE LOCATIONS SHALL BE INSPECTED TO ASCERTAIN WHETHER SOIL CONTROL MEASURES ARE EFFECTIVE IN PREVENTING SIGNIFICANT IMPACTS TO RECEIVING WATERS. LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE SHALL BE INSPECTED FOR EVIDENCE OF OFFSITE SEDIMENT TRACKING
- TRIANGULAR SILT DIKES SHALL BE PLACED IN SWALES. SEDIMENT SHALL BE REMOVED ADJACENT TO THE SILT DIKES WHEN THE DEPTH OF THE SEDIMENT EXCEEDS 6 INCHES.
- 2. PUMPS MAY BE USED AS BYPASS DEVICES, BUT IN NO CASE WILL THE WATER BE DIVERTED OUTSIDE THE PROJECT LIMIT.
- DURING PERIODS OF EXTENDED DRY WEATHER, THE CONTRACTOR SHALL KEEP A WATER TRUCK ON-SITE FOR THE PURPOSE OF WATERING DOWN SOIL WHICH MAY OTHERWISE BECOME AIRBORNE.
- . QUALIFIED PERSONNEL (PROVIDED BY THE NPDES GENERAL PERMITTEE) SHALL INSPECT DISTURBED AREAS OF THE CONSTRUCTION SITE THAT HAVE NOT BEEN FINALLY STABILIZED, STRUCTURAL CONTROL MEASURES, AND LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE AT LEAST ONCE EVERY SEVEN CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A STORM THAT IS 0.5 INCHES OR GREATER OR EQUIVALENT SNOWFALL. REPORTING SHALL BE DONE IN ACCORDANCE WITH PART IV D.4.a. THROUGH f. OF THE GENERAL PERMIT.
- 5. PLAN IS TO BE KEPT AT CONSTRUCTION FACILITY DURING THE ENTIRE CONSTRUCTION PERIOD.

CONTRACTOR **CERTIFICATION STATEMENT:**

I CERTIFY UNDER PENALTY OF LAW THAT I UNDERSTAND THE TERM AND CONDITIONS OF THE GENERAL NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT (ILR10) THAT AUTHORIZES THE STORMWATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITY FROM THE CONSTRUCTION SITE IDENTIFIED AS PART OF THIS CERTIFICATION.

DATED THIS	DAY OF
BY:	TITLE:
COMPANY:	
ADDRESS:	
TELEPHONE:	

NO SOLID MATERIALS, INCLUDING BUILDING MATERIALS, SHALL BE DISCHARGED TO WATERS OF THE STATE, EXCEPT AS AUTHORIZED BY A SECTION 404 PERMIT. ALL WASTE MATERIALS SHOULD BE COLLECTED AND STORED IN APPROVED RECEPTACLES. NO WASTES SHOULD BE PLACED IN ANY LOCATION OTHER THAN IN THE APPROVED CONTAINERS APPROPRIATE FOR THE MATERIALS BEING DISCARDED. THERE SHOULD BE NOT LIQUID WASTES DEPOSITED INTO DUMPSTERS OR OTHER CONTAINERS WHICH MAY LEAK. RECEPTACLES WITH DEFICIENCIES SHOULD BE REPLACED AS SOON AS POSSIBLE AND THE APPROPRIATE CLEAN-UP PROCEDURE SHOULD TAKE PLACE, IF NECESSARY. CONSTRUCTION WASTE MATERIAL IS NOT TO BE BURIED ONSITE. WASTE DISPOSAL SHOULD COMPLY WITH ALL LOCAL, STATE, AND FEDERAL REGULATIONS.

ONSITE HAZARDOUS MATERIAL STORAGE SHOULD BE MINIMIZED AND STORED IN LABELED, SEPARATE RECEPTACLES FROM NON-HAZARDOUS WASTE. ALL HAZARDOUS WASTE SHOULD BE DISPOSED OF IN THE MANNER SPECIFIED BY LOCAL OR STATE REGULATION OR BY THE MANUFACTURER.

DEWATERING OPERATIONS

DURING DEWATERING/PUMPING OPERATIONS, ONLY UNCONTAMINATED WATER SHOULD BE ALLOWED TO DISCHARGE TO PROTECTED NATURAL AREA, WATERS OF THE STATE, OR TO A STORM SEWER SYSTEM (IN ACCORDANCE WITH LOCAL PERMITS). INLET HOSES SHOULD BE PLACED IN A STABILIZED SUMP PIT OR FLOATED AT THE SURFACE OF THE WATER IN ORDER TO LIMIT THE AMOUNT OF SEDIMENT INTAKE. PUMPING OPERATIONS SHOULD BE DISCHARGED TO A STABILIZED AREA THAT CONSISTS OF AN ENERGY DISSIPATING DEVICE (I.E. STONE, SEDIMENT FILTER BAG, OR BOTH). WHEN NECESSARY, STABILIZED CONVEYANCE CHANNELS SHOULD BE INSTALLED TO DIRECT WATER TO THE DESIRED LOCATION. ADDITIONAL BMPS MAY BE REQUIRED AT THE OUTLET AREA AS REQUESTED BY THE MUNICIPALITY, OR OTHER REVIEWING AGENCY.

DUST CONTROL

A WATER TRUCK MAY BE NECESSARY ONSITE TO LIMIT THE AMOUNT OF DUST LEAVING THE SITE. THE FOLLOWING LIST OF CONTROL MEASURES MAY BE IMPLEMENTED ONSITE TO LIMIT THE 1. SPRINKLING/IRRIGATION 2. VEGETATIVE COVER 3. MULCH 4. SPRAY ON SOIL TREATMENTS 5. TILLAGE 6. STONE.

OFFSITE VEHICLE TRACKING STABILIZED CONSTRUCTION ENTRANCE(S) SHOULD BE INSTALLED TO HELP REDUCE VEHICLE TRACKING OF SEDIMENTS. ADJACENT ROADWAYS SHOULD BE SWEPT AS NEEDED, TO REDUCE EXCESS SEDIMENT, DIRT, OR STONE TRACKED FROM THE SITE. ACCUMULATED SEDIMENT AND STONE SHOULD BE REMOVED FROM THE STABILIZED ENTRANCE AS NEEDED. VEHICLES HAULING

SANITARY STATIONS TO THE EXTENT PRACTICABLE, PORT—A—POTTIES SHOULD BE LOCATED AT A MINIMUM EIGHT (8) FEET BEHIND THE PAVEMENT EDGE OF THE INTERNAL ROADS AND BE LOCATED IN AN AREA THAT DOES NOT DRAIN TO ANY PROTECTED NATURAL AREAS, WATERS OF THE STATE, OR STORM WATER STRUCTURES AND SHOULD BE ANCHORED TO THE GROUND TO PREVENT FROM TIPPING OVER. PORT—A—POTTIES LOCATED ON IMPERVIOUS SURFACES SHOULD BE PLACED ON TOP OF A SECONDARY CONTAINMENT DEVICE, OR BE SURROUNDED BY A CONTROL DEVICE (I.E. GRAVEL-BAG BERM).

SPILL PREVENTION DISCHARGES OF A HAZARDOUS SUBSTANCE OR OIL CAUSED BY A SPILL (E.G., A SPILL OF OIL INTO A SEPARATE STORM SEWER OR WATERS OF THE STATE) ARE NOT AUTHORIZED BY THIS PERMIT. IF A SPILL OCCURS, NOTIFY THE OWNER IMMEDIATELY. THE CONSTRUCTION SITE SHOULD HAVE THE CAPACITY TO CONTROL, CONTAIN, AND REMOVE SPILLS IF THEY OCCUR. SPILLS SHOULD BE CLEANED IMMEDIATELY AFTER DISCOVERY IN ACCORDANCE WITH MSDS AND NOT BURIED ON SITE OR WASHED INTO STORM DRAINS OR WATERS OF THE STATE.

THE FOLLOWING IS A DESCRIPTION OF PROCEDURES THAT SHOULD BE USED TO MAINTAIN, IN GOOD AND EFFECTIVE OPERATION CONDITIONS, VEGETATION, EROSION AND SEDIMENT CONTROL

- STABILIZED CONSTRUCTION ENTRANCE: THE ENTRANCES SHALL BE MAINTAINED TO PREVENT TRACKING OF SEDIMENT ON TO PUBLIC STREETS. MAINTENANCE INCLUDES TOP DRESSING WITH ADDITIONAL STONE AND REMOVING TOP LAYERS OF STONES AND SEDIMENT. THE SEDIMENT RUN-OFF ONTO THE PUBLIC RIGHT OF WAY SHOULD BE REMOVED IMMEDIATELY. - CONCRETE WASHOUT AREA: EXISTING FACILITIES SHOULD BE CLEANED OUT. OR NEW FACILITIES SHOULD BE CONSTRUCTED AND OPERATIONAL ONCE THE EXISTING WASHOUT IS 75% FULL WASHOUTS SHOULD BE INSPECTED FREQUENTLY TO ENSURE THAT PLASTIC LININGS ARE INTACT AND SIDEWALLS HAVE NOT BEEN DAMAGED BY CONSTRUCTION ACTIVITIES. WHEN THE WASHOUT AREA IS ADJACENT TO A PAVED ROAD, THE PAVED ROAD SHOULD BE INSPECTED FOR ACCUMULATED CONCRETE WASTE. ANY ACCUMULATED CONCRETE WASTE ON THE ROAD, CURB, OR GUTTER SHOULD BE REMOVED AND PROPERLY DISPOSED. - SILT FILTER FENCE: SILT FENCES SHOULD BE INSPECTED REGULARLY FOR UNDERCUTTING WHERE THE FENCE MEETS THE GROUND, OVERTOPPING, AND TEARS ALONG THE LENGTH OF THE FENCE. DEFICIENCIES SHOULD BE REPAIRED IMMEDIATELY. REMOVE ACCUMULATED SEDIMENTS FROM THE FENCE BASE WHEN THE SEDIMENT REACHES ONE—HALF THE FENCE HEIGHT. DURING FINAL STABILIZATION, PROPERLY DISPOSE OF ANY SEDIMENT THAT HAS ACCUMULATED ON THE SILT FENCE. INSTANCES WHEN AREAS OF SILT FENCE CONTINUALLY FAIL. REPLACE SILT FENCE

INSPECTIONS
THE OWNER SHALL DESIGNATE QUALIFIED PERSONNEL TO BE RESPONSIBLE FOR SEDIMENT AND EROSION CONTROL OBSERVATION REPORTING. THIS QUALIFIED PERSONNEL SHALL MEET THE REQUIREMENTS NOTED IN THE ILR10 PERMIT CONDITIONS AND LOCAL CODES. SITE OBSERVATIONS SHOULD OCCUR AT LEAST ONCE EVERY SEVEN CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A STORM THAT IS 0.5 INCHES OR GREATER, OR EQUIVALENT SNOWFALL. SITE OBSERVATION REPORTS SHOULD BE MAINTAINED ONSITE AS PART OF THE SWPPP.

EACH SITE OBSERVATION SHALL INCLUDE THE FOLLOWING COMPONENTS: A. DISTURBED AREAS AND AREAS USED FOR THE STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION SHALL BE CHECKED FOR EVIDENCE OF, OR POTENTIAL FOR, POLLUTANTS ENTERING THE DRAINAGE SYSTEM. THE EROSION AND SEDIMENT CONTROL MEASURES IDENTIFIED IN THE PLAN SHALL BE OBSERVED TO ENSURE THAT THEY HAVE BEEN INSTALLED AND ARE OPERATING CORRECTLY. WHERE DISCHARGE POINTS ARE ACCESSIBLE, THEY SHOULD BE CHECKED TO ASCERTAIN WHETHER EROSION CONTROL MEASURES ARE EFFECTIVE IN PREVENTING SIGNIFICANT IMPACTS TO THE RECEIVING WATERS. LOCATIONS WHERE VEHICLES ENTER AND EXIT THE SITE SHOULD BE CHECKED FOR OFF-SITE SEDIMENT TRACKING. ALL PUMPING OPERATIONS AND ALL OTHER POTENTIAL NO-STORM WATER DISCHARGES SHOULD BE OBSERVED.

B. BASED ON THE RESULTS OF THE SITE OBSERVATION, THE DESCRIPTION OF POTENTIAL POLLUTANT SOURCES IDENTIFIED, AND THE POLLUTION PREVENTION MEASURES DESCRIBED IN THIS PLAN SHALL BE REVISED AS APPROPRIATE. AS SOON AS PRACTICABLE AFTER THE OBSERVATION, THE MODIFICATIONS, IF ANY, SHALL PROVIDE FOR TIMELY IMPLEMENTATION OF AN CHANGES TO THE PLAN WITHIN 7 CALENDAR DAYS FOLLOWING THE SITE OBSERVATION. C. A REPORT SUMMARIZING THE SCOPE OF THE OBSERVATION, NAME(S) AND QUALIFICATIONS OF PERSONNEL MAKING THE OBSERVATION, THE DATE(S) OF THE OBSERVATION, MAJOR OBSERVATIONS RELATING TO THE IMPLEMENTATION OF THE STORM WATER POLLUTION PREVENTION PLAN, AND ACTIONS TAKEN IN ACCORDANCE WITH PARAGRÁPH B ABOVE SHALL BE MADE AND RETAINED AS PART OF THE STORM WATER POLLUTION PREVENTION PLAN FOR AT LEAST THREE YEARS FROM THE DATE OF FINAL STABILIZATION OF PERMIT COVERAGE IS TERMINATED. THE

REPORT SHALL BE SIGNED IN ACCORDANCE WITH PART VI.G (SIGNATORY REQUIREMENTS) OF THE ILR10 NPDES PERMIT. . THE OWNER SHALL NOTIFY THE APPROPRIATE AGENCY FIELD OPERATION SECTION OFFICE BY EMAIL AT EPA.SWNONCOMPLIANCE@ILLINOIS.GOV. TELEPHONE. OR FAX WITHIN 24 HOURS OF ANY INCIDENCE OF NONCOMPLIANCE FOR ANY VIOLATION OF THE STORM WATER POLLUTION PREVENTION PLAN OBSERVED DURING A SITE OBSERVATION, OR FOR VIOLATIONS OF ANY CONDITION OF THE PERMIT. THE OWNER SHALL COMPLETE AND SUBMIT WITHIN 5 DAYS AN INCIDENCE OF NONCOMPLIANCE REPORT FOR ANY VIOLATION OF THE STORM WATER POLLUTION PREVENTION PLAN OBSERVED DURING AN INSPECTION CONDUCTED. SUBMISSION SHALL BE ON FORMS PROVIDED BY THE AGENCY AND INCLUDE SPECIFIC INFORMATION ON THE CAUSE OF NONCOMPLIANCE, ACTIONS WHICH WERE TAKEN TO PREVENT ANY FURTHER CAUSES OF NONCOMPLIANCE, AND A STATEMENT DETAILING ANY ENVIRONMENTAL IMPACT, WHICH MAY HAVE RESULTED

- ALL REPORTS OF NONCOMPLIANCE SHALL BE SIGNED BY A RESPONSIBLE AUTHORITY AS DEFINED IN PART VI.G OF THE ILR10 NPDES PERMIT. ALL REPORTS OF NONCOMPLIANCE SHALL BE MAILED TO THE AGENCY AT THE FOLLOWING ADDRESS:
- ILLINOIS ENVIRONMENTAL PROTECTION AGENCY DIVISION OF WATER POLLUTION CONTROL COMPLIANCE ASSURANCE SECTION 1021 NORTH GRAND AVENUE EAST. POST OFFICE BOX 19276. SPRINGFIELD ILLINOIS 62794-9276

NON-STORM WATER DISCHARGES

EXCEPT FOR FLOWS FROM FIRE FIGHTING ACTIVITIES, SOURCES OF NON-STORM WATER THAT MAY BE COMBINED WITH STORM WATER DISCHARGES ASSOCIATED WITH THE ACTIVITY ADDRESSED IN THIS PLAN, ARE DESCRIBED BELOW: WATER MAIN FLUSHING FIRE HYDRANT FLUSHING

WATER FOR DUST CONTROL IRRIGATION DRAINAGE FOR VEGETATIVE GROWTH FOR SEEDING, ETC.

5. UNCONTAMINATED GROUNDWATER

THE POLLUTION PREVENTION MEASURES, AS DESCRIBED BELOW, WILL BE IMPLEMENTED FOR NON-STORM WATER COMPONENTS OF THE DISCHARGE: THE FIRE HYDRANT AND WATER MAIN SHOULD NOT BE FLUSHED DIRECTLY ON THE EXPOSED AREA OR SUBGRADE OF THE PAVEMENT. HOSES SHOULD BE USED TO DIRECT THE FLOW ONTO A STABILIZED AREA. THE EROSION DUE TO IRRIGATION OF SEEDING SHALL BE CONSIDERED MINOR.

OWNER CERTIFICATION STATEMENT:

"I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHERED AND EVALUATED THE INFORMATION SUBMITTED, BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM, OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION THE INFORMATION SUBMITTED IS, TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE, ACCURATE AND COMPLETE I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS." DAY OF

DATED THIS	DAY OF
BY:	
COMPANY:	
TELEPHONE:	

SOIL PROTECTION CHART

TYPE	JAN.	FEB.	MA	٩R.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	ост.	NOV.	DEC.
PERMANENT SEEDING				-	Α	A							
DORMANT SEEDING	-	В										-	В
TEMPORARY SEEDING				-	С	IR	RIGATION	NEEDE	D D	_			
SODDING				-			Е			_			
MULCHING	•						F						-

A = TALL FESCUE 240 LBS./ACRE B = TALL FESCUE 480 LBS./ACRE + 2T STRAW MULCH C = SPRING OATS 100 LBS./ACRE D = WHEAT OR CEREAL RYE 300 LBS./ACREF = STRAW MULCH 2 TONS /ACREIRRIGATION NEEDED DURING JUNE & JULY.

EROSION CONTROL INSPECTION & MAINTENENCE SCHEDULE

ACTIVITY	WEEKLY	MONTHLY	AS REQUIRED
SILT FENCE			
INSPECT			
REMOVE SILT			
REPAIR DAMAGE			
SILT FILTERS AT INLETS			
INSPECT			
REMOVE SILT			
REPAIR FILTERS			

UNLESS OTHERWISE NOTED, ALL DISTRUBED AREAS SHALL BE RESTORED WITH 6 INCHES OF TOPSOIL AND SOD.

EX. SWING SET -

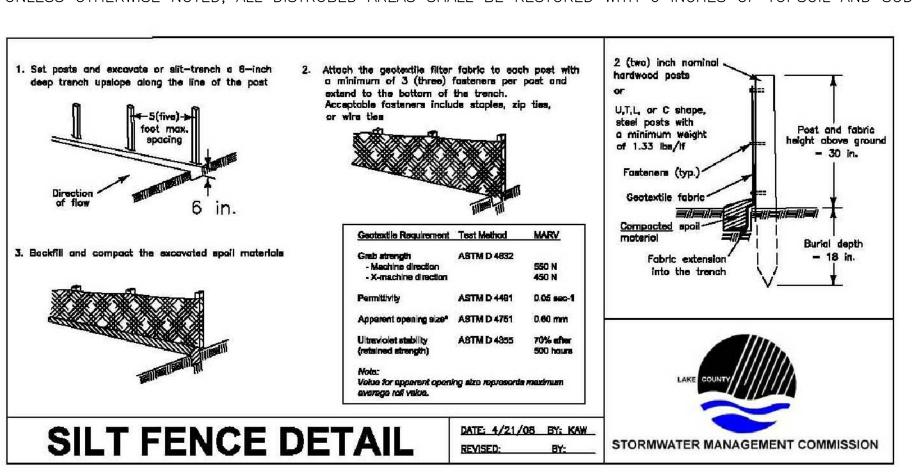
JOB BENCHMARK:

S.E. BOLT ON FIRE HYDRANT.

ELEVATION=668.74 (NAVD 88)

EX. WOOD

CHIP AREA



01-19-16

DATE:

01-19-16

DATE:

01-19-16

HECKED BY:

APPROVED BY:

DMW

DRF

ALL EROSION CONTROL DEVICES SHALL BE INSPECTED WEEKLY AND AFTER EVERY 1/2" OF RAINFALL OR 5" OF SNOW.

EROSION CONTROL LEGEND

— F — — F —	FILTER FENCE
677	EXIST. CONTOUR
675	PROP. CONTOUR
	EXIST. SPOT ELEVATION
(677.6)	PROP. SPOT ELEVATION
—	EXIST. SURFACE DRAINAGE
—	PROP. SURFACE DRAINAGE
←	EXIST. DITCH
←	PROP. DITCH
~~	EXIST. SWALE
◆ ~~	PROP. SWALE

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WOODED

₹**,**(*,%\$€,

VERIZON MOBILE EQUIPMENT SPACE (FINAL SIZE & LOCATION T.B.D.)

T-MOBILE EQUIPMENT SPACE (FINAL SIZE & LOCATION T.B.D.)

ξ**(',''**)ξ

EX. WOODED

AREA

EX. WOODED

662.97-6"PVC S

FENCING (TYPICAL)

FX. ASPHALT

PAVEMENT

1"=20 61086 C11

COUNTRYSIDE MANOR ELEVATED TANK - LIBERTYVILLE, IL STORMWATER POLLUTION PREVENTION PLAN