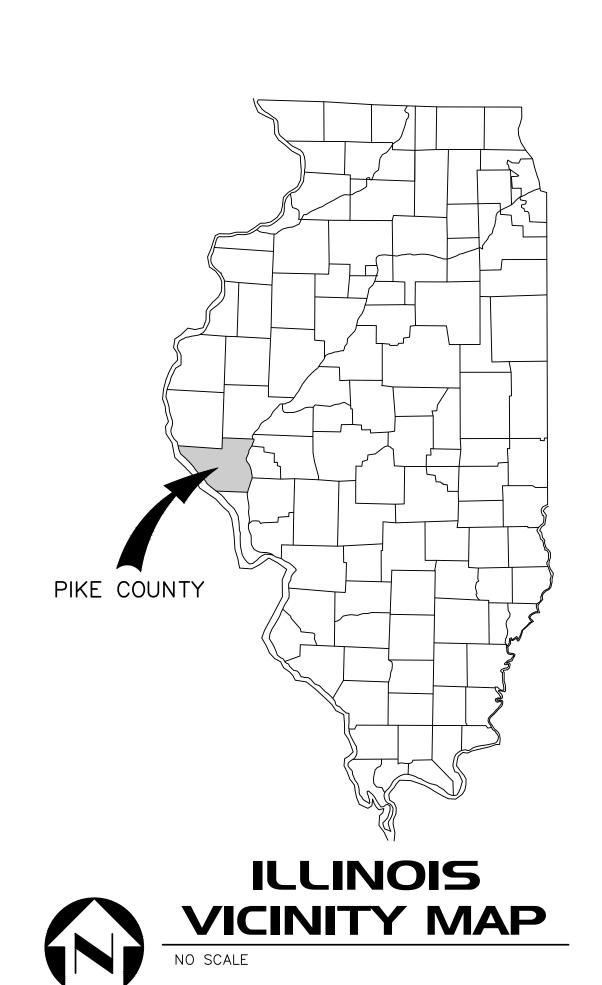
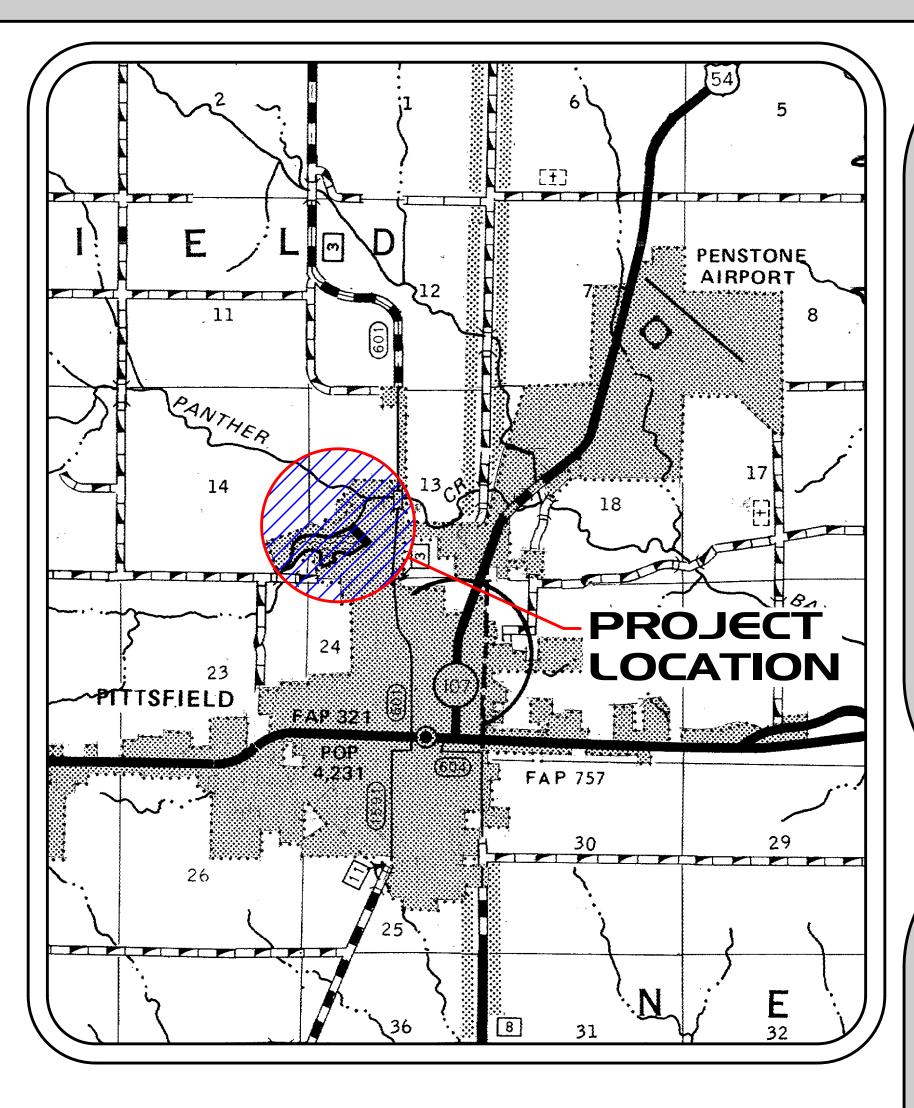
# CONSTRUCTION PLANS FOR JELLYSTONE PARK, PINE LAKES IMPROVEMENTS 1406 LAKE VIEW DRIVE

PITTSFIELD, ILLINOIS 62363

**MARCH**, 2021 MECO PROJECT NO. 106-117

SET NO.







## **CONTACT INFORMATION**

PROJECT ENGINEER · · · · · · · · · · · · KEVIN GARNETT STREET DEPARTMENT · · · · · · · · · (217) 285-4243 GAS AND WATER . . . . . . . . . . . . . . . . (217) 285-6850 DEPARTMENT WASTEWATER · · · · · · · · · · · · (217) 285-6208 TREATMENT FACILITY ELECTRIC (AMEREN) ..... (888) 777-3108 TELEPHONE (CASSCOMM) .... (217) 452-7725

AVOID DAMAGE THERETO.

Know what's **below** Call before you dig



MECO HANNIBAL, MO JEFFERSON CITY, MO BRANSON, MO PITTSFIELD, IL SPRINGFIELD, IL

MO Engineering Lic. #000898 - IL Design Firm #184-001749



HEREBY CERTIFY THAT THESE PLANS WERE PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEERING EXISTING UNDER THE LAWS OF THE STATE OF ILLINOIS.

**ENGINEER'S CERTIFICATION** 

4-6-21

KEVIN W. GARNETT, P.E. NO. IL/0062-057955

SHEET NO. GI

### WATER MAIN CONSTRUCTION NOTES

- 1. ALL NEW WATER MAINS SHALL BE POLYVINYL CHLORIDE (P.V.C.) PIPE CONFORMING TO THE LATEST AWWA STANDARDS FOR AWWA C-900.
- 2. ALL NEW WATER MAINS SHALL BE CONSTRUCTED IN ACCORDANCE WITH MOST RECENT EDITION OF "STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION" IN ILLINOIS.
- 3. WATER MAINS SHALL BE SEPARATED FROM SEPTIC TANKS, DISPOSAL FIELDS, AND SEEPAGE FIELDS BY A MINIMUM OF 25 FEET.
- 4. WATER MAINS SHALL BE DISINFECTED PRIOR TO USE, ONE SET OF SAMPLES SHALL BE COLLECTED FROM END OF NEW MAINS AND AT 1200 LINEAR FEET MAXIMUM INTERVALS. ALL DISINFECTION SHALL BE DEMONSTRATED IN ACCORDANCE WITH THE REQUIREMENTS OF 35 ILL.
- 5. ALL OPEN-CUT TRENCH EXCAVATION THRU EXISTING AND PROPOSED STREET RIGHT OF WAYS SHALL BE FULL DEPTH COMPACTED GRANULAR TRENCH BACKFILL UNLESS OTHERWISE NOTED. ALL GRANULAR TRENCH BACKFILL SHALL BE I.D.O.T. APPROVED CA-6.
- 6. ALL NEW WATER MAINS SHALL BE PRESSURE TESTED AND COST SHALL BE INCIDENTAL TO INSTALLATION OF WATER MAINS. MINIMUM TEST PRESSURE SHALL BE 200 P.S.I..
- 7. CONTRACTOR SHALL FURNISH AND INSTALL TRACER WIRE ALONG ENTIRE ROUTE OF WATER MAIN INCLUDING SERVICELINES WITH #12 AWG. THW SINGLE CONDUCTOR WIRE WITH BLUE OUTER VINYL JACKET. THE WIRE SHALL BE INSTALLED ABOVE CROWN OF PIPE AND SHALL BE BROUGHT TO THE TOP AND OUTSIDE OF EACH VALVE BOX OR AIR RELEASE AND TERMINATED WITH ONE FOOT MINIMUM LENGTH OF WIRE INSIDE. ALL NECESSARY SPLICING SHALL BE MADE USING DIRECT BURY SPLICE KIT. COMPLETE TRACER WIRE INSTALLATION SHALL BE TESTED FOR CONTINUITY PRIOR TO FINAL ACCEPTANCE AND PAVEMENT BY OWNER
- 8. POURED CONCRETE THRUST BLOCKS SHALL BE USED ON ALL FITTINGS ALONG WATER MAIN AND MUST BE IN ACCORDANCE WITH MANUFACTURES SPECIFICATIONS FOR 200 P.IS.O. TEST PRESSURE.
- 9. EXISTING ROADWAY DITCHES DAMAGED DURING CONSTRUCTION SHALL BE REGRADED, SHAPED AND SEEDED TO ORIGINAL CONDITION PRIOR TO CONSTRUCTION AND SHALL BE INCIDENTAL TO THE CONSTRUCTION OF THE WATER MAIN.
- 10. THE CONTRACTOR SHALL BE REQUIRED TO MAINTAIN 60" MINIMUM COVER OVER NEW WATER MAINS WHEN CROSSING ANY EXISTING OF PROPOSED DITCHES OR SWALES. COST FOR FITTINGS, EXTRA DEPTH EXCAVATION, PIPE, ETC. SHALL BE CONSIDERED INCIDENTAL TO THE COST OF THE WATÉR MAIN.

### ILLINOIS CONSTRUCTION NOTES

1) UNLESS SPECIFICALLY SHOWN ON THESE PLANS, ALL WORK WILL BE COMPLETED IN ACCORDANCE WITH THE MOST RECENT EDITION OF THE "STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS".

2) WATER MAINS SHALL BE SEPARATED FROM SEPTIC TANKS, DISPOSAL FÍELDS, AND SEEPAGE BEDS BY A MINIMUM OF 25 FEET.

3.) ALL WATER MAINS SHALL BE SATISFACTORILY DISINFECTED PRIOR TO USE, AT LEAST ONE SET OF SAMPLES SHALL BE COLLECTED FROM THE FND OF THE NEW WATER MAIN AND AT LEAST ONE SET FROM EACH BRANCH. SATISFACTORY DISINFECTION SHALL BE DEMONSTRATED IN ACCORDANCE WITH THE REQUIREMENTS OF 35 ILL. ADM. CODE 652.203.

4) LOCATOR WIRES

CODE 890).

- A. SHALL BE 12 GA. AND PLACED WITH ALL LINES. B. SHALL BE COLOR CODED AS FOLLOWS: SEWER - ORANGE
- WATER BLUE GAS - YELLOW
- C. SHALL BE LOOPED TO THE SURFACE AT ALL VALVES AND FENCE CROSSINGS.

5) UNDERGROUND FACILITIES, STRUCTURES AND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS AND RECORDS AND THEREFORE, THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. THERE MAY BE OTHERS THE EXISTENCE OF WHICH IS AT PRESENT NOT KNOWN. VERIFICATION OF THE LOCATIONS OF UNDERGROUND UTILITIES, SHOWN OR NOT SHOWN WILL BE THE RESPONSIBILITY OF THE CONSTRUCTION CONTRACTOR.

6) THE FOLLOWING CODES APPLY TO ALL WORK ON THIS PROJECT: RECREATIONAL AREA CODE (77 ILL, CODE 800), 2002 NATIONAL ELECTRIC CODE AND 2014 ILLINOIS PLUMBING CODE (IPC) (77 IL, ADM.

## SAFETY NOTICE TO CONTRACTOR

IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE GENERAL CONTRACTOR SHALL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS OF THE JOB SITE, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS REQUIREMENT WILL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS. ANY CONSTRUCTION OBSERVATION BY THE ENGINEER OF THE CONTRACTOR'S PERFORMANCE DOES NOT INCLUDE REVIEW OF THE ADEQUACY OF THE CONTRACTOR'S SAFETY MEASURES, IN, ON OR NEAR THE CONSTRUCTIONS SITE.

## UNDERGROUND UTILITY NOTE

UNDERGROUND FACILITIES, STRUCTURES AND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS AND RECORDS AND THEREFORE, THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. THERE MAY BE OTHERS THE EXISTENCE OF WHICH IS AT PRESENT NOT KNOWN. VERIFICATION OF THE LOCATIONS OF UNDERGROUND UTILITIES, SHOWN OR NOT SHOWN, WILL BE THE RESPONSIBILITY OF THE CONSTRUCTION

### SANITARY SEWER CONSTRUCTION NOTES

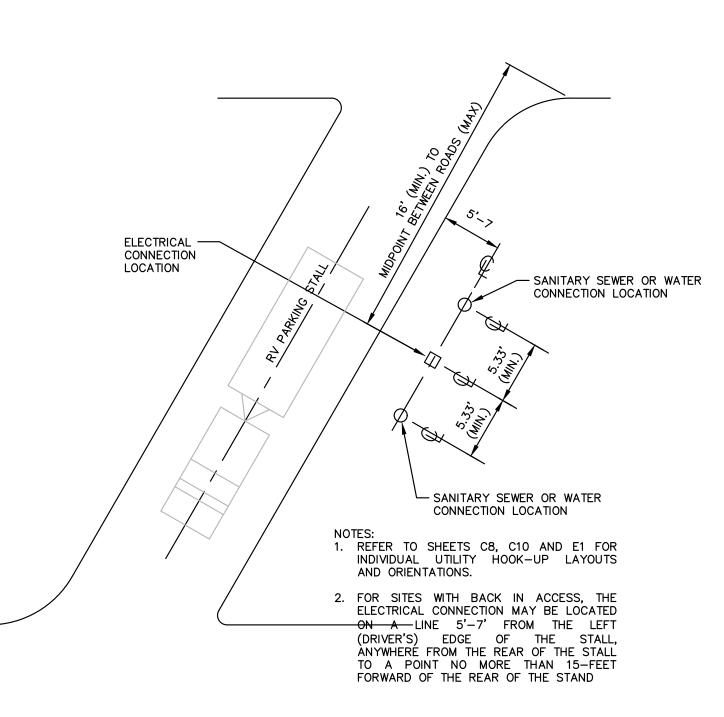
- 1. ALL NEW CONSTRUCTION CONNECTIONS OR ADJUSTMENTS OF EXISTING SANITARY SEWER AND APPURTENANCES SHALL BE IN ACCORDANCE WITH LATEST ADDITION OF "STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS.
- 2. GRAVITY SANITARY SEWER MAINS SHALL BE CONSTRUCTED WITH P.V.C. PIPE AND SHALL CONFORM TO A.S.T.M. D-3034, SDR 35 PVC, HEAVY WALL WITH PUSH-ON JOINTS PER A.S.T.M SPECIFICATIONS D-3212 AND SHALL BE MADE OF VIRGIN RIGID POLYVINYL CHLORIDE (P.V.C.) COMPOUNDS MEETING REQUIREMENTS OF A.S.T.M. SPECIFICATION D-1784.
- 3. FORCE MAINS SHALL BE CONSTRUCTED USING A.S.T.M. D-3034, SDR 26 PVC AND CONFORM TO THE LATEST A.S.T.M. D-3034 STANDARDS FOR SDR 26 PVC WITH RUBBER GASKETED JOINTS.
  - 4. FULL DEPTH GRANULAR TRENCH BACKFILL SHALL BE USED UNDER EXISTING AND PROPOSED STREET RIGHT OF WAYS AND UNDER EXISTING PAVEMENTS. ALL GRANULAR TRENCH BACKFILL SHALL BE I.D.O.T. APPROVED CA-6.
- 5. ALL GRAVITY SANITARY SEWER MAINS SHALL BE DEFLECTION TESTED AND COST SHALL BE INCIDENTAL TO INSTALLATION OF GRAVITY SANITARY SEWER MAINS.
- 6. ALL GRAVITY SANITARY SEWER MAINS SHALL BE AIR TESTED AND COST SHALL BE INCIDENTAL TO INSTALLATION OF GRAVITY SANITARY SEWER
- 7. ALL FORCE MAINS SHALL BE PRESSURE TESTED AND COST SHALL BE INCIDENTAL TO INSTALLATION OF FORCE MAINS. MINIMUM TEST PRESSURE
- 8. EMBEDMENT (BEDDING, HAUNCHING AND INITIAL BACKFILL) TO 12" OVER TOP OF FLEXIBLE THERMOPLASTIC SEWER PIPE SHALL BE CLASS I MATERIALS IN ACCORDANCE WITH ASTM D-2321-89. CLASS IA OR IB MATERIALS SHALL MEET I.D.O.T. STANDARDS FOR CA-6 OR CA-7 FROM A STATE APPROVED SOURCE.
- 9. CONTRACTOR SHALL FURNISH AND INSTALL TRACER WIRE ALONG ENTIRE ROUTE OF FORCE MAIN WITH #12 AWG, THW SINGLE CONDUCTOR COPPER LOCATOR WIRE. THE WIRE SHALL BE INSTALLED ABOVE CROWN OF PIPE AND SHALL BE BROUGHT TO THE TOP AND OUTSIDE OF EACH VALVE BOX, AIR RELEASE OR MANHOLE AND TERMINATE WITH ONE FOOT MINIMUM LENGTH OF WIRE INSIDE, ALL NECESSARY SPLICING SHALL BE MADE USING DIRECT BURY SPLICE KIT. COMPLETE TRACER WIRE INSTALLATION SHALL BE TESTED FOR CONTINUITY PRIOR TO FINAL ACCEPTANCE AND PAYMENT BY OWNER.
- 10. RETAINER GLANDS OR THRUST BLOCKS SHALL BE USED ON ALL FITTINGS ALONG FORCE MAIN, AND MUST BE IN ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS FOR 100 P.S.I. TEST PRESSURE.
- 11. CLEARING AND DISPOSING OF FENCERS, BRUSH AND TREES SHALL BE CONSIDERED INCIDENTAL TO THE COST OF THE GRAVITY SANITARY SEWER
- 12. SANITARY SEWER SERVICES SHALL BE 4" P.V.C. SDR 35 PVC AND INCLUDE THE TEE OR WYE, 45° BEND, RISER PIPE IF REQUIRED, LATERAL PIPE, CAP, AND OTHER FITTINGS OR APPURTENANCES TO COMPLETE THE
- 13. SANITARY SEWER SERVICE SHALL EXTEND 20' BEYOND THE PROPERTY LINE. CONTRACTOR SHALL PROVIDE "AS-CONSTRUCTED" TIE-IN INFORMATION FOR LOCATING THE ENDS THE SERVICE AND CONNECTION TO THE MAIN.

LIFT STATION / MANHOLE SCHEDULE			
NO.	DESCRIPTION	TOP	вот.
LIFT STA.	STANDARD 72" I.D.	670.50	654.50
MH-1	STANDARD 48" I.D.	667.25	658.60
MH-2	STANDARD 48" I.D.	668.03	659.60
MH-3	STANDARD 48" I.D.	668.17	660.27
MH-4	STANDARD 48" I.D.	672.00	661.11
MH-5	STANDARD 48" I.D.	689.02	678.19
MH-6	STANDARD 48" I.D.	695.85	678.93
MH-7	STANDARD 48" I.D.	690.92	680.43
MH-8	STANDARD 48" I.D.	714.25	704.67
MH-9	STANDARD 48" I.D.	711.76	705.43
MH-10	STANDARD 48" I.D.	669.95	661.18
MH-11	STANDARD 48" I.D.	667.20	661.21

### LEGEND

•	BENCHMARK	*	TREE	o	CHAIN LINK FENCE
×	CUT X	F	SIGN	~~~~	TREELINE OR EDGE OF BRUSH
•	IRON PIN FOUND	Ш	TELEPHONE PEDESTAL	s	EXISTING SANITARY SEWER LINE
0	IRON PIN SET	-0-	TELEPHONE POLE		NEW SANITARY SEWER LINE
₩	MEANDER POINT	ਖ	FIRE HYDRANT EXISTING		NEW STORM SEWER LINE
Æ	CONTROL POINT	*	FIRE HYDRANT PROPOSED	———w——	EXISTING WATER MAIN
Δ	PK NAIL	<b>W</b>	WATER METER		EXISTING WATER MAIN
	POST	\&	WATER VALVE	——— UE ———	EXISTING BURIED ELECTRIC LINE
$\leftarrow$	GUY WIRE	_670~	CONTOUR LINE		NEW BURIED ELECTRIC LINE
*	LIGHT POLE	********	ROCK BLANKET	—— от ——	EXISTING OVERHEAD TELEPHONE LINE
	POWER POLE		BUILDING / HOUSE	RW	ROW LINE
8	VALVE	· · · · · · · · · · · · · · · · · · ·	EDGE OF ASPHALT	————PL———	PROPERTY LINE
<b>⊗</b>	CLEANOUT	_~~~~~~~~~~~~~~~	EDGE OF GRAVEL		
<b>©</b>	MANHOLE EXISTING		EDGE OF CONCRETE		

----- FLOWLINE



TYPICAL UTILITY HOOK-UP LAYOUT NO SCALE

DESIGNED

K. GARNETT

MANHOLE PROPOSED

### **INDEX OF SHEETS**

	SHT NO.	DESCRIPTION
	G1	COVER SHEET
	G2	INDEX OF SHEETS / LEGEND / BENCH MARKS AND GENERAL NOTES
	C1	EXISTING SITE CONDITIONS / DEMOLITION PLAN
	C2	SWPPP PLAN
	C3	SITE GRADING AND DRAINAGE PLAN
	C4	SITE CROSS SECTIONS
	C5	SITE CROSS SECTIONS
	C6	SITE AND ROADWAY LAYOUT PLAN
	C7	ROADWAY / FENCING / EROSION CONTROL AND MISCELLANEOUS SITE DETAILS
	C8	WATERLINE PLAN
	C9	TYPICAL WATERLINE DETAILS
	C10	GRAVITY SEWER PLAN
	C11	GRAVITY SEWER PROFILES
	C12	GRAVITY SEWER PROFILES
	C13	TYPICAL GRAVITY SEWER DETAILS
	C14	FORCE MAIN PLAN AND PROFILE
	C15	FORCE MAIN PLAN AND PROFILE
	C16	TYPICAL FORCE MAIN DETAILS
	M1	LIFT STATION DETAILS
	E1	ELECTRICAL PLAN
<u></u>	E2	ELECTRICAL DETAILS

BENCHMARK INFORMATION					
BM #1	N-1077663.0185	E-2114822.0025	EL. 690.77	5/8" REBAR	
BM #2	N-1077881.3950	E-2115318.4010	EL. 662.54	CUT "X"	
BM #3	N-1077576.1060	E-2113931.4600	EL. 714.18	TOP OF CLEANOUT	

IF THIS DRAWING IS PLOTTED LESS THAN 22x36 IN SIZE, IT IS A REDUCED PLOT - SCALE SHOULD BE ADJUSTED ACCORDINGLY

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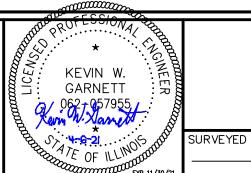
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NO.	DATE	REVISION DESCRIPTION	B,
$\triangle$	4-29-21	CHANGED PIPE CLASS FROM SDR 26 TO SDR 35	R.I
2	4-29-21	CHANGED PIPE CLASS FROM C900 TO SDR 26	
3	4-29-21	CHANGED PIPE CLASS FROM SDR 26 TO SDR 35 AND PIPE SIZE FROM 6" TO 4"	
4	7/14/21	ADDED NOTE REFERENCING APPLICABLE CODES	Κ.
<u>\$</u>	7/14/21	ADDED SHEET E1 ELECTRICAL DETAILS	Κ.
<u></u>	7/14/21	REVISED TYPICAL UTILITY CONNECTION DETAIL	Κ.



MO Engineering Lic. #000898 - IL Design Firm #184-001749

OFFICE LOCATIONS HANNIBAL, MO JEFFERSON CITY, MO BRANSON, MO PITTSFIELD, IL SPRINGFIELD, IL



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A OF ILLINOS	Y

JELLYSTONE PARK, PINE I
1405 LAKEVIEW DRIV
PITTSFIELD, ILLINOIS 62

R. HAYES

**LAKES** 2363

APPROVED

RELEASED

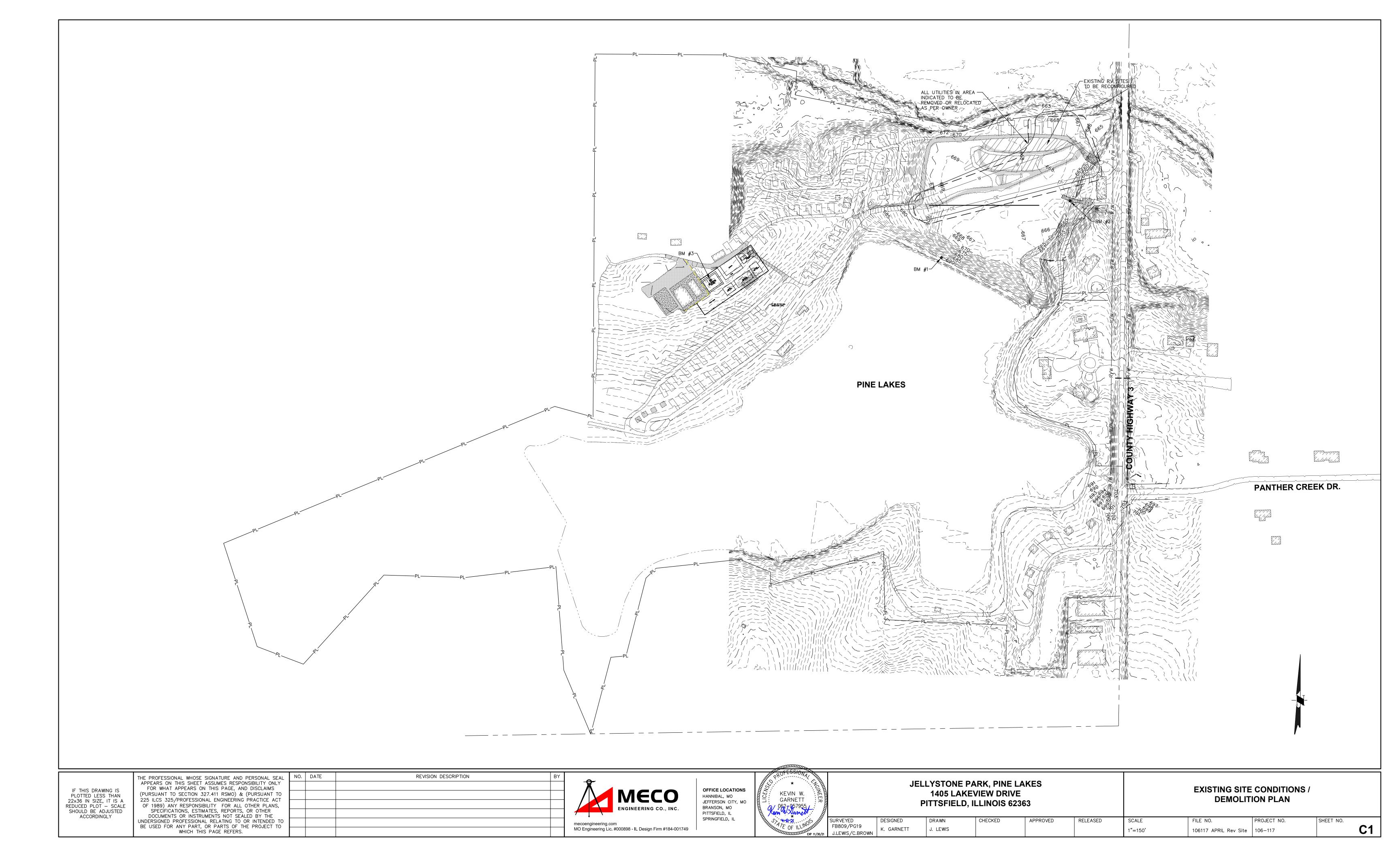
SCALE

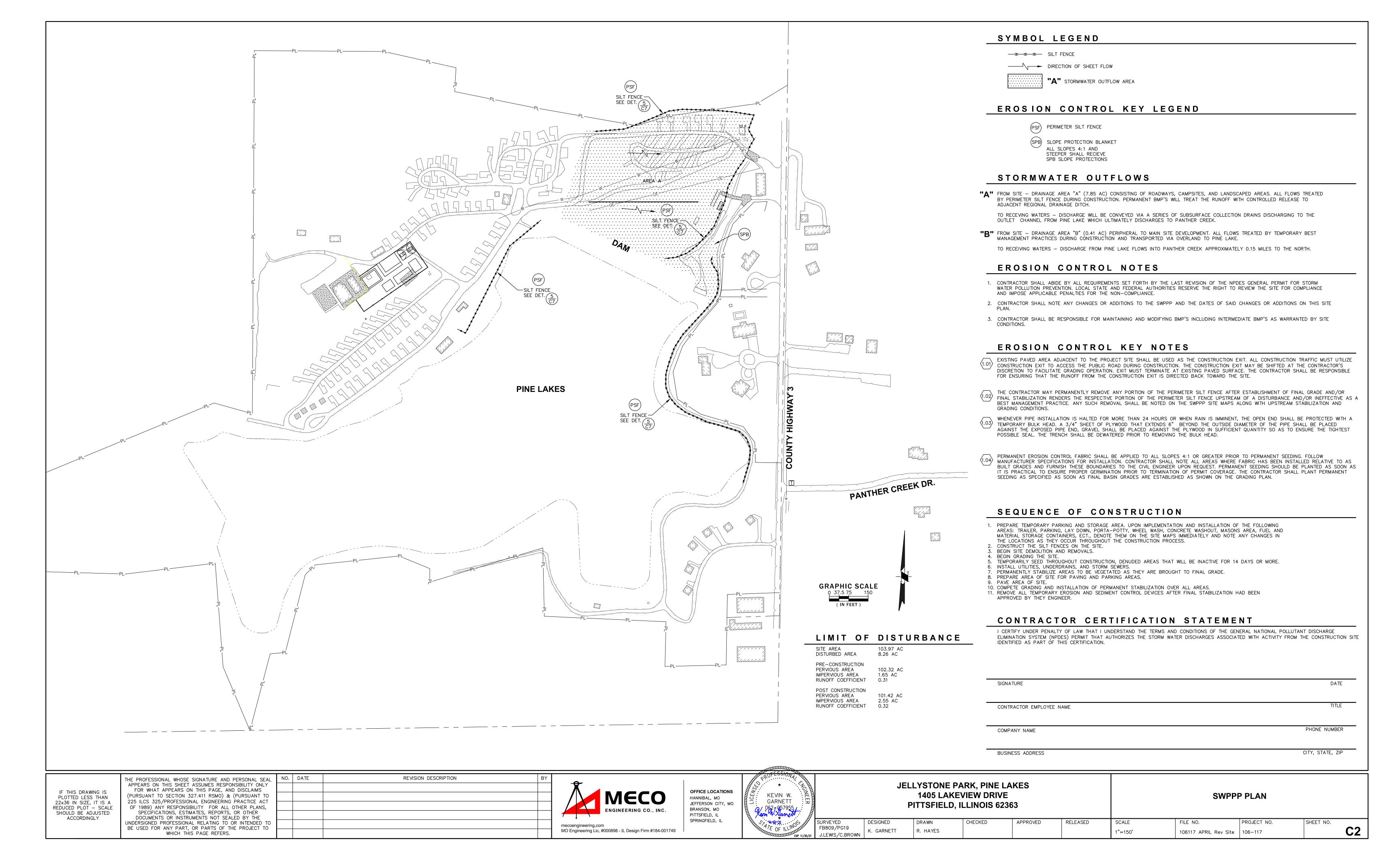
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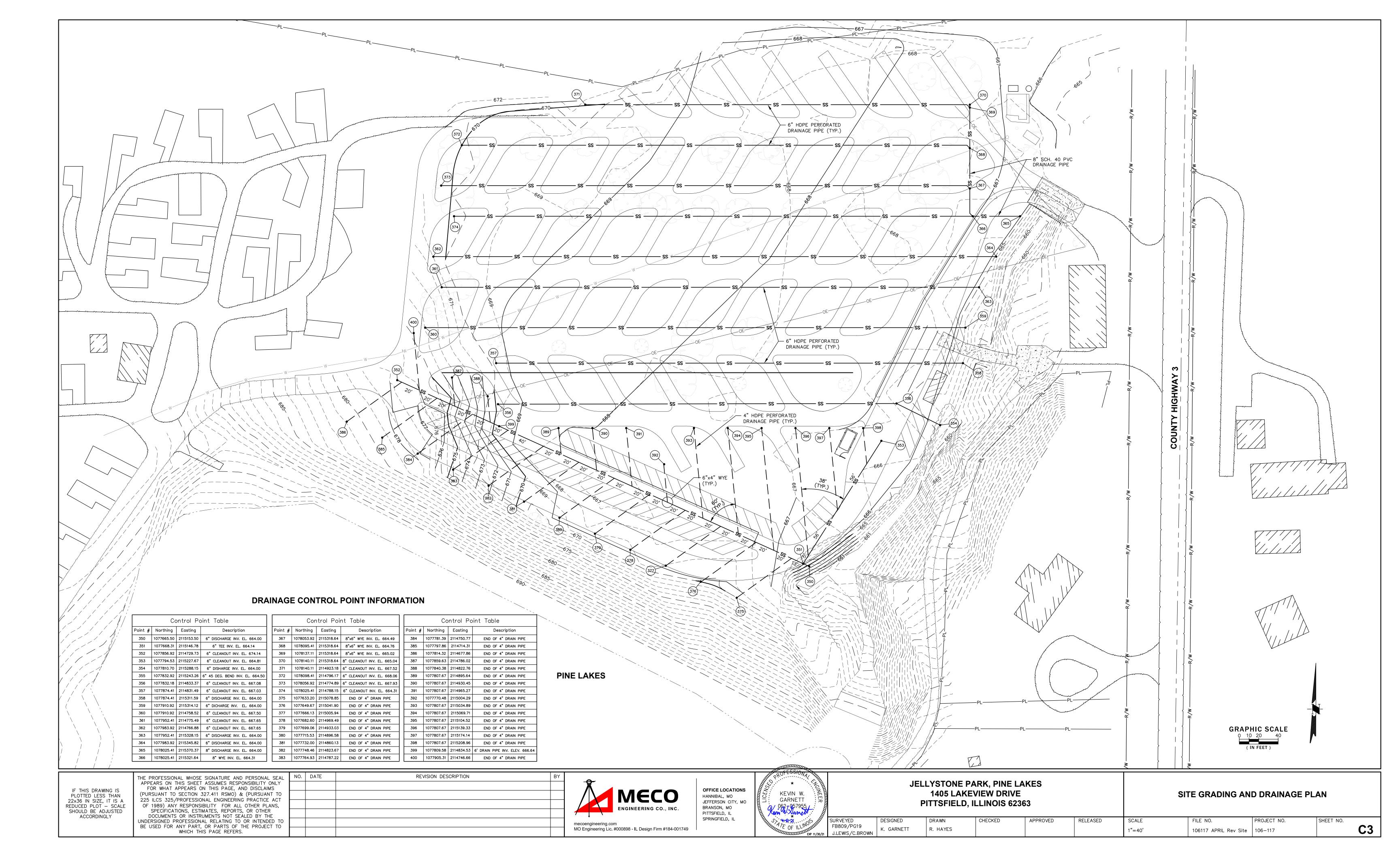
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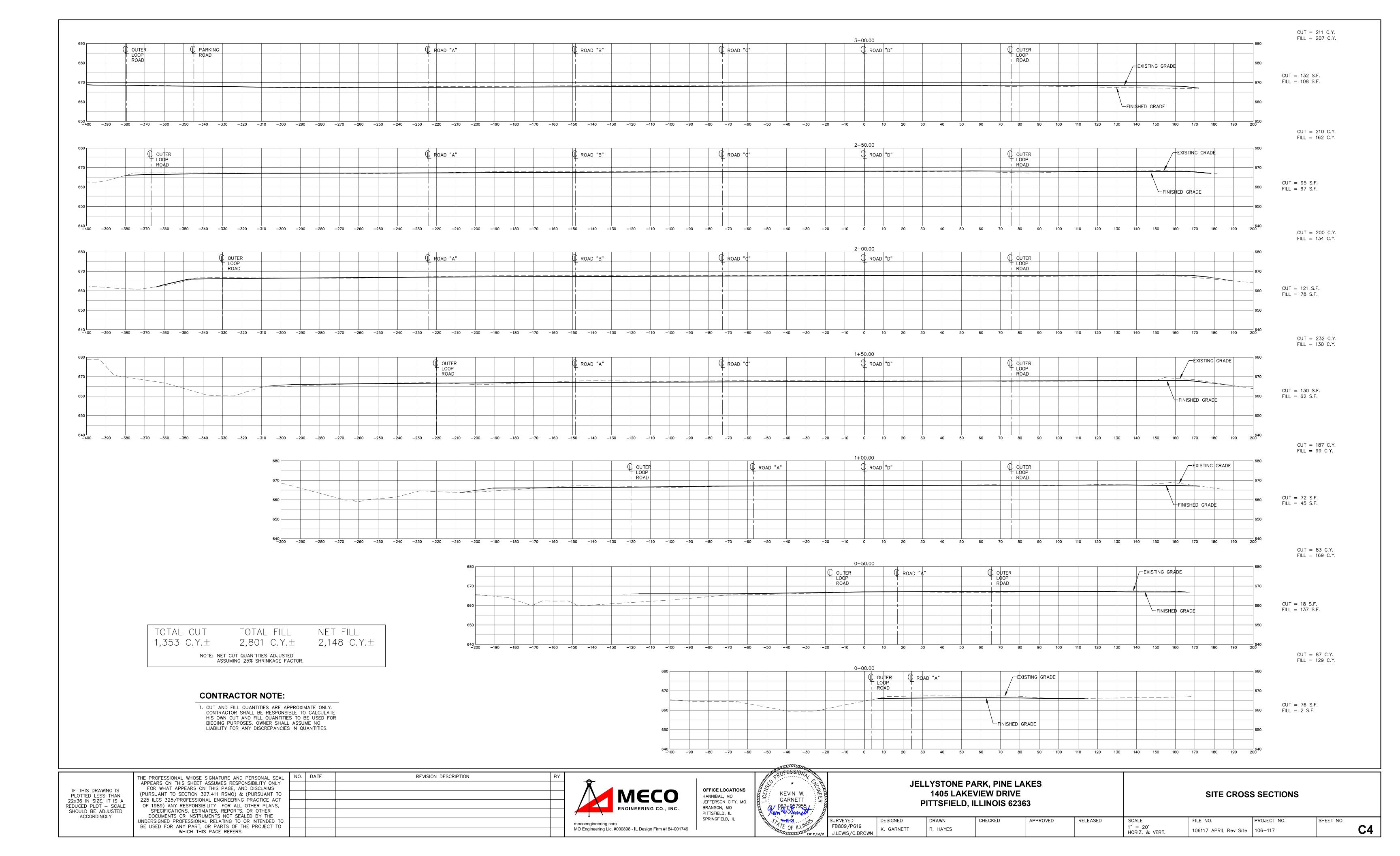
INDEX OF SHEETS / LEGEND / **BENCH MARKS AND GENERAL NOTES** 

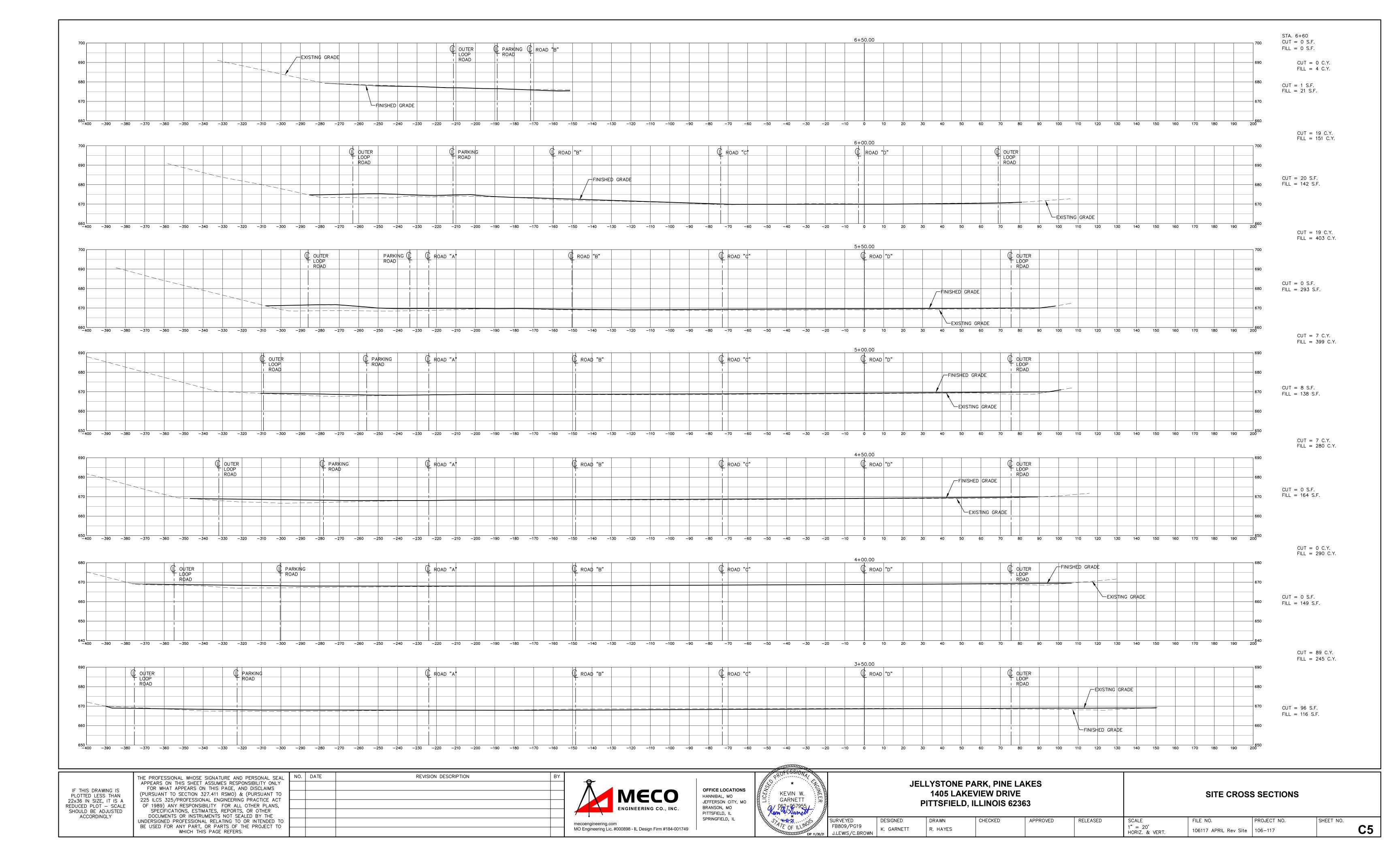
FILE NO. PROJECT NO. 106117 Index Sheet 106-117

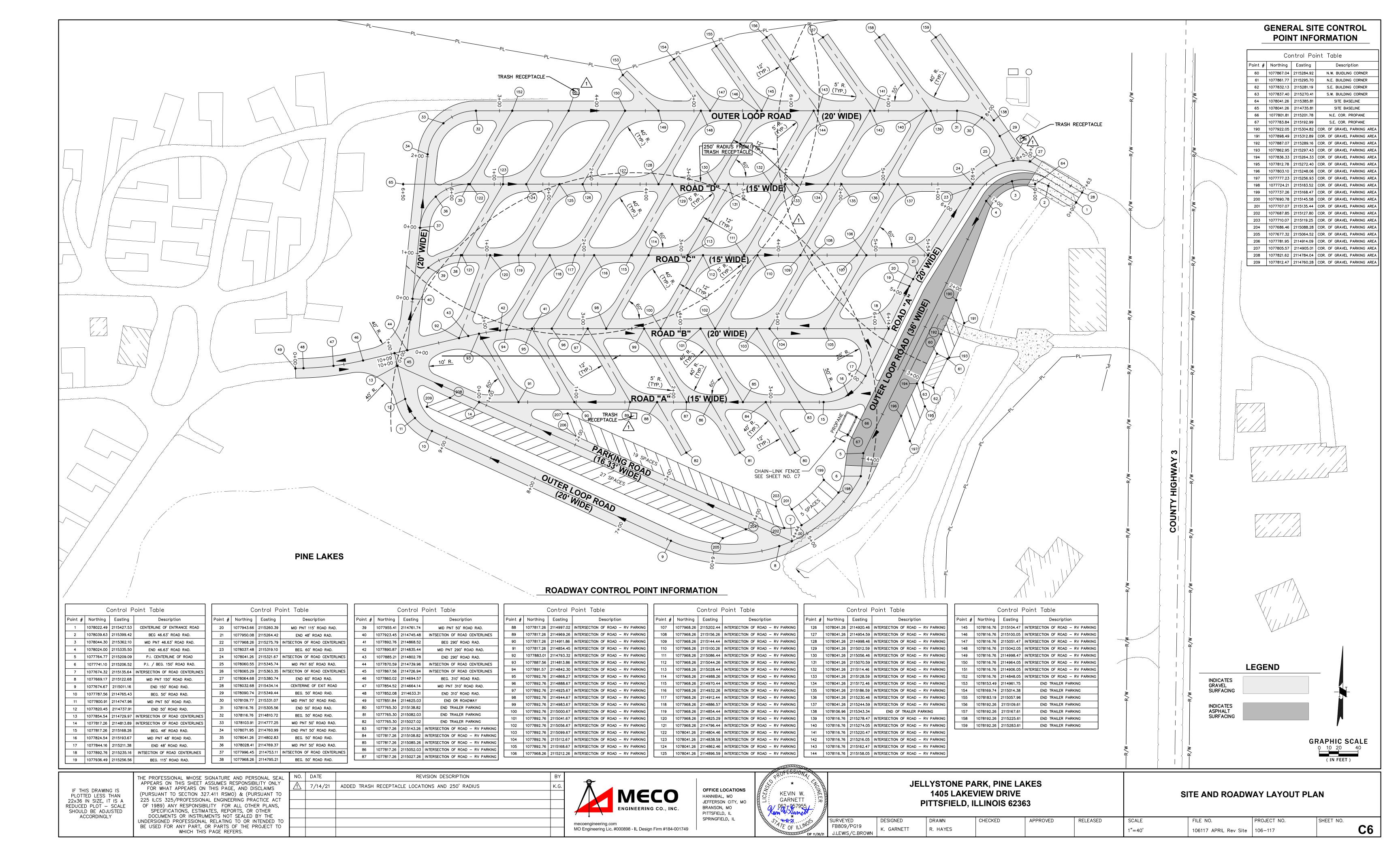


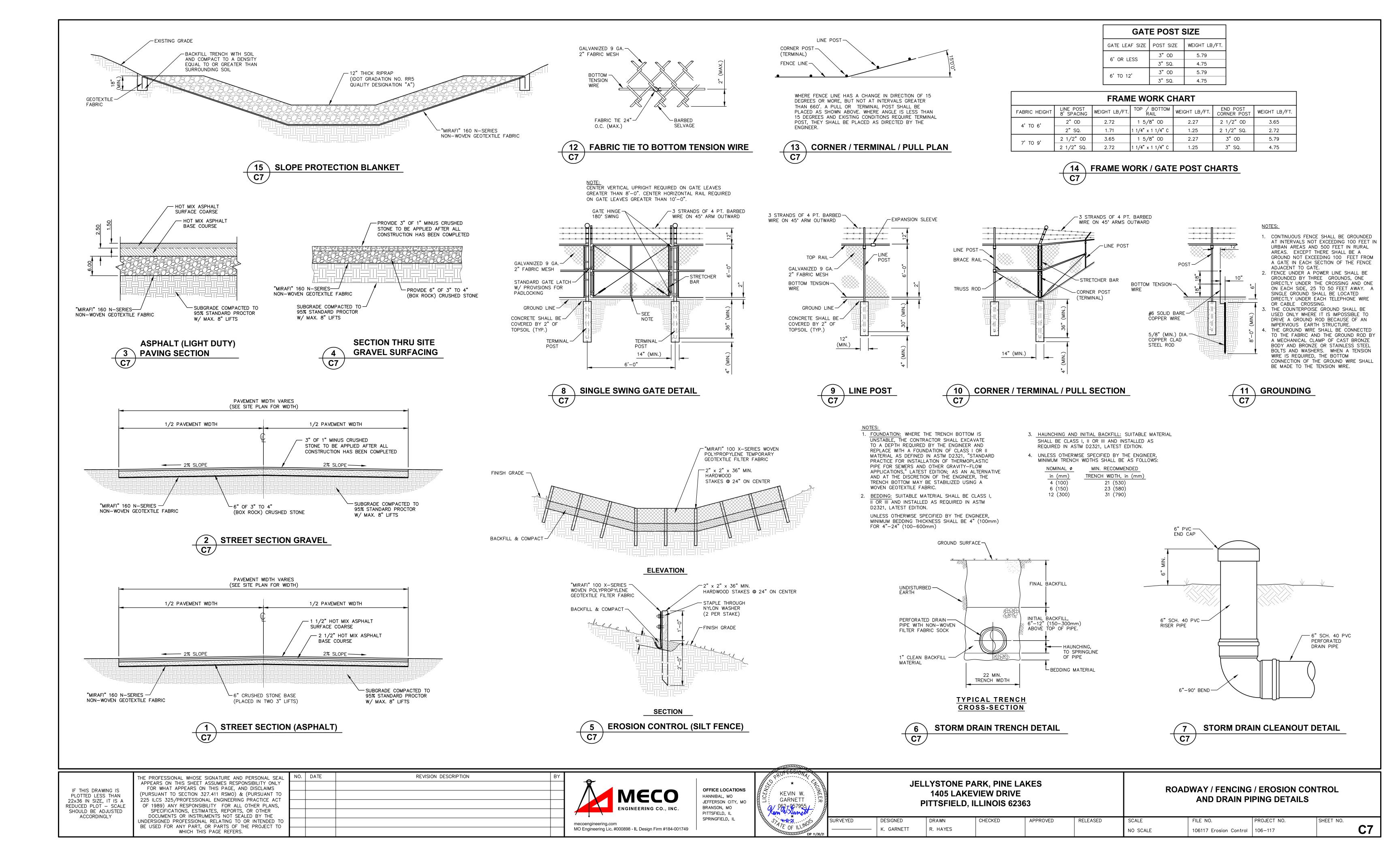


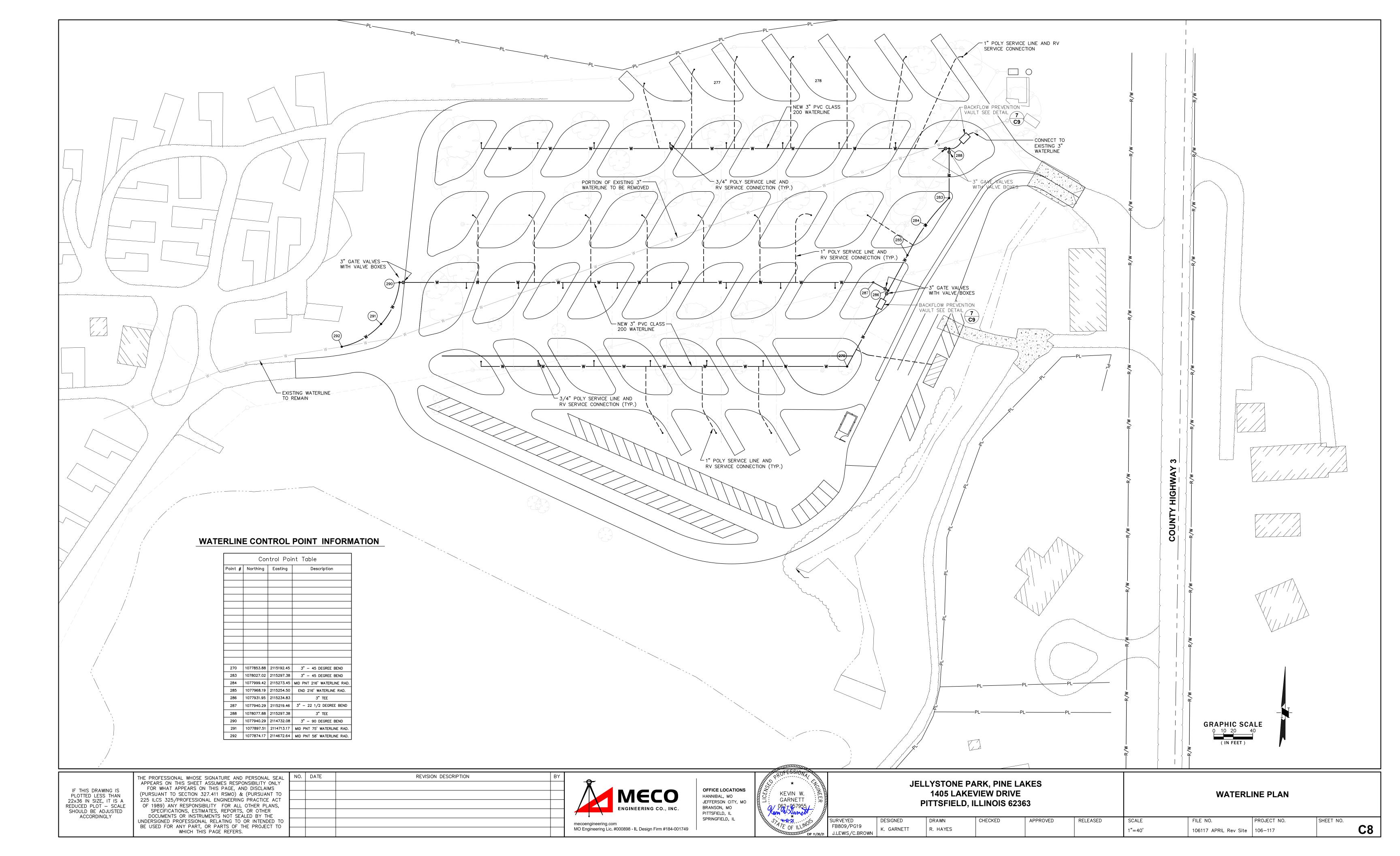


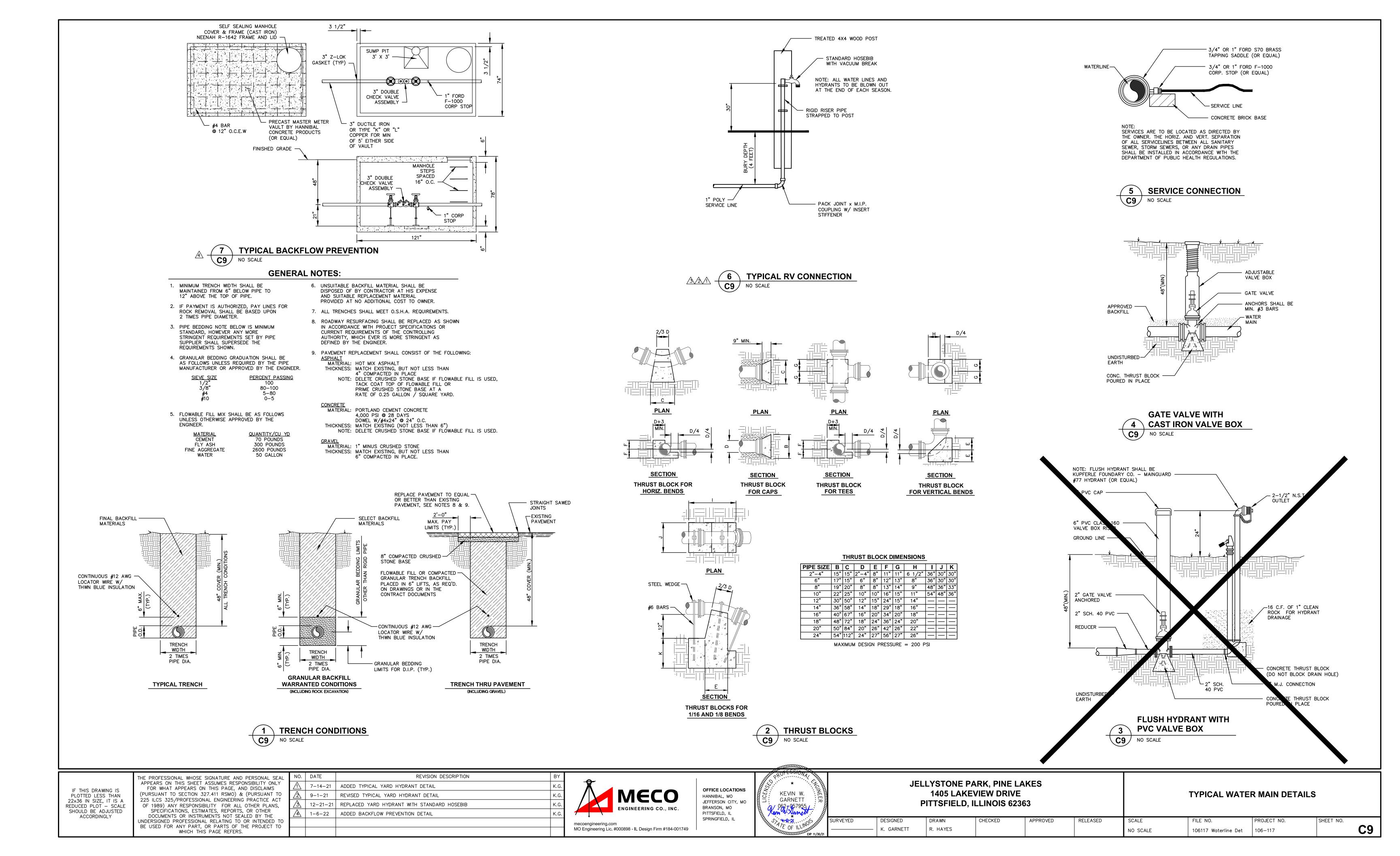


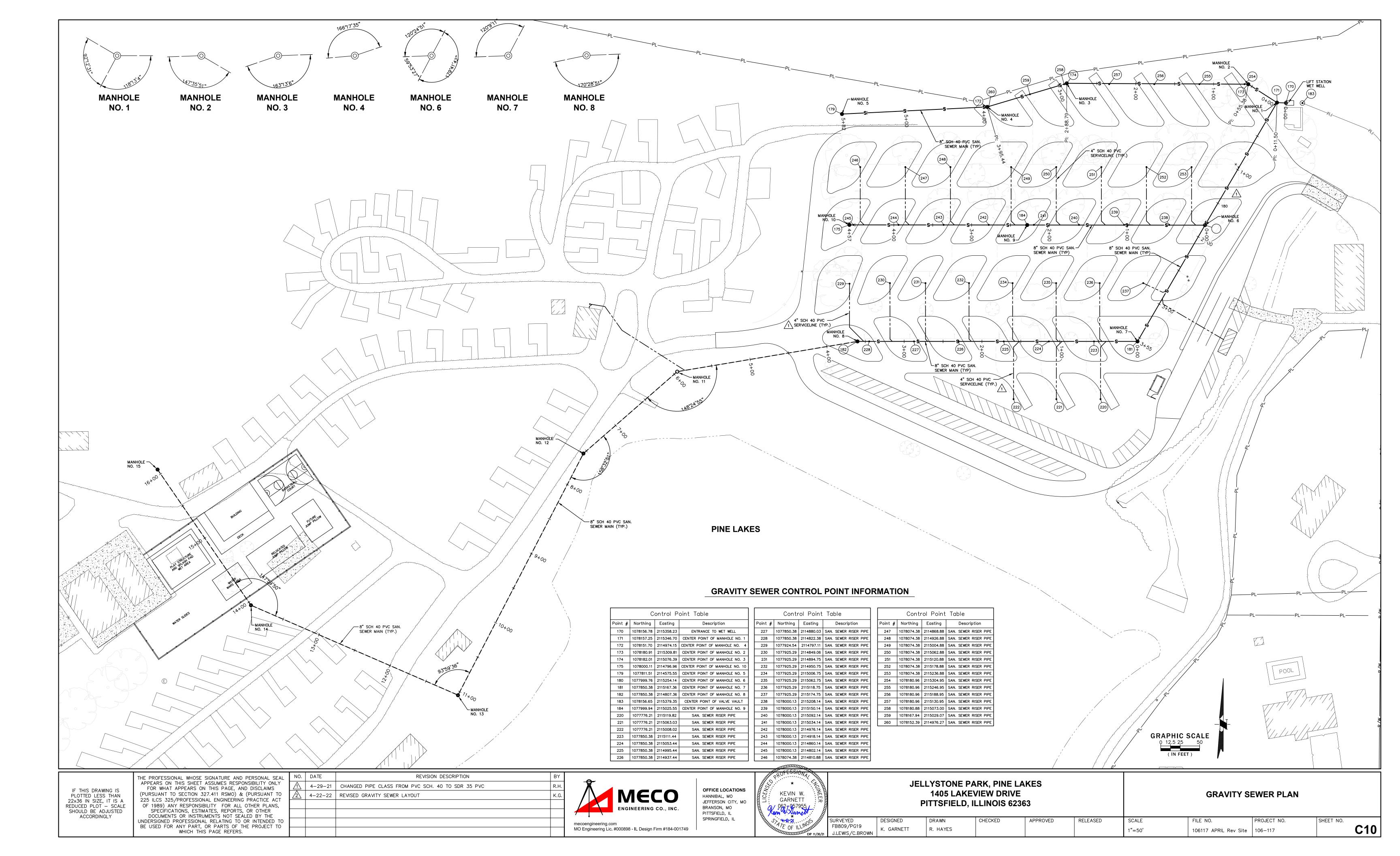


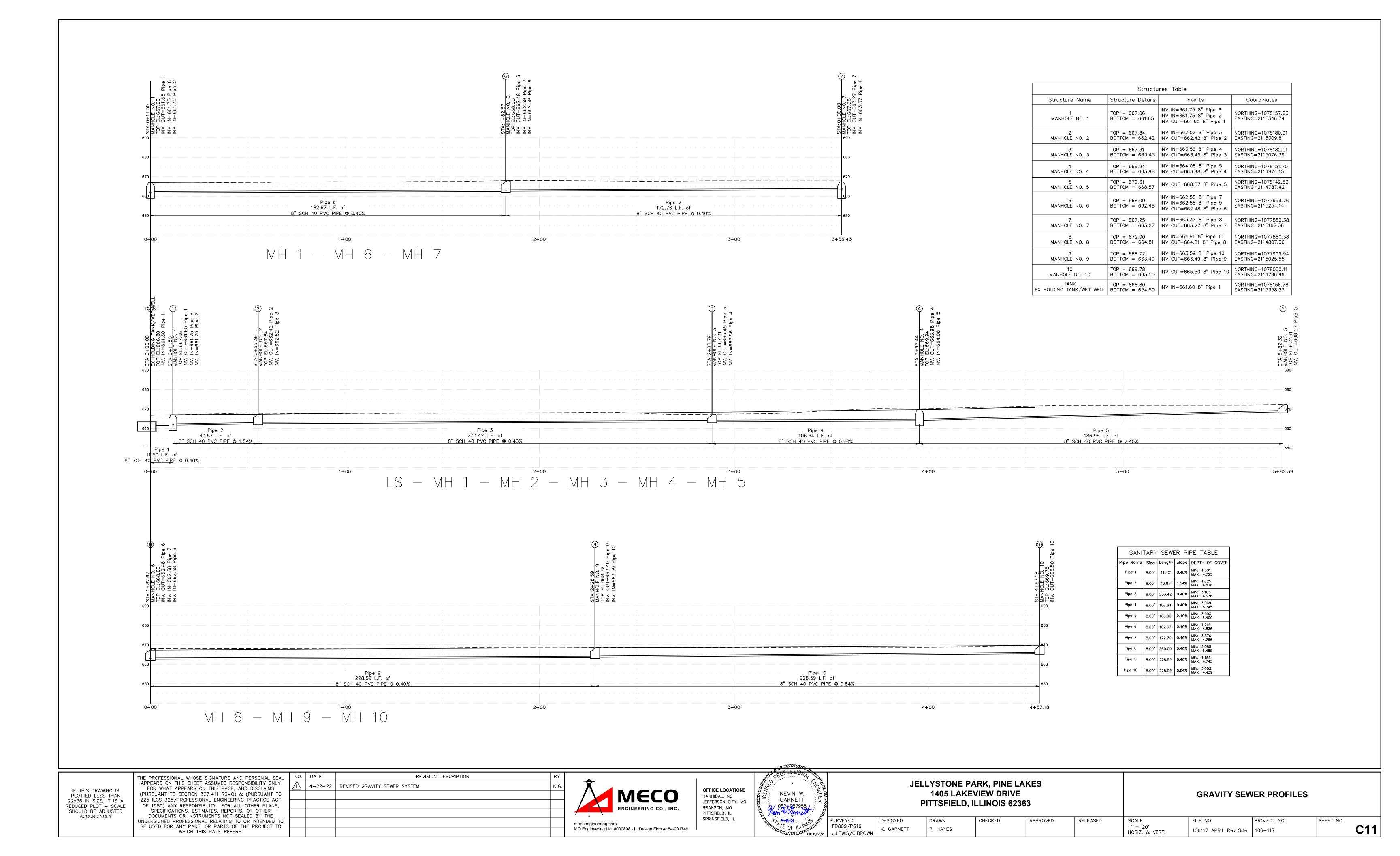


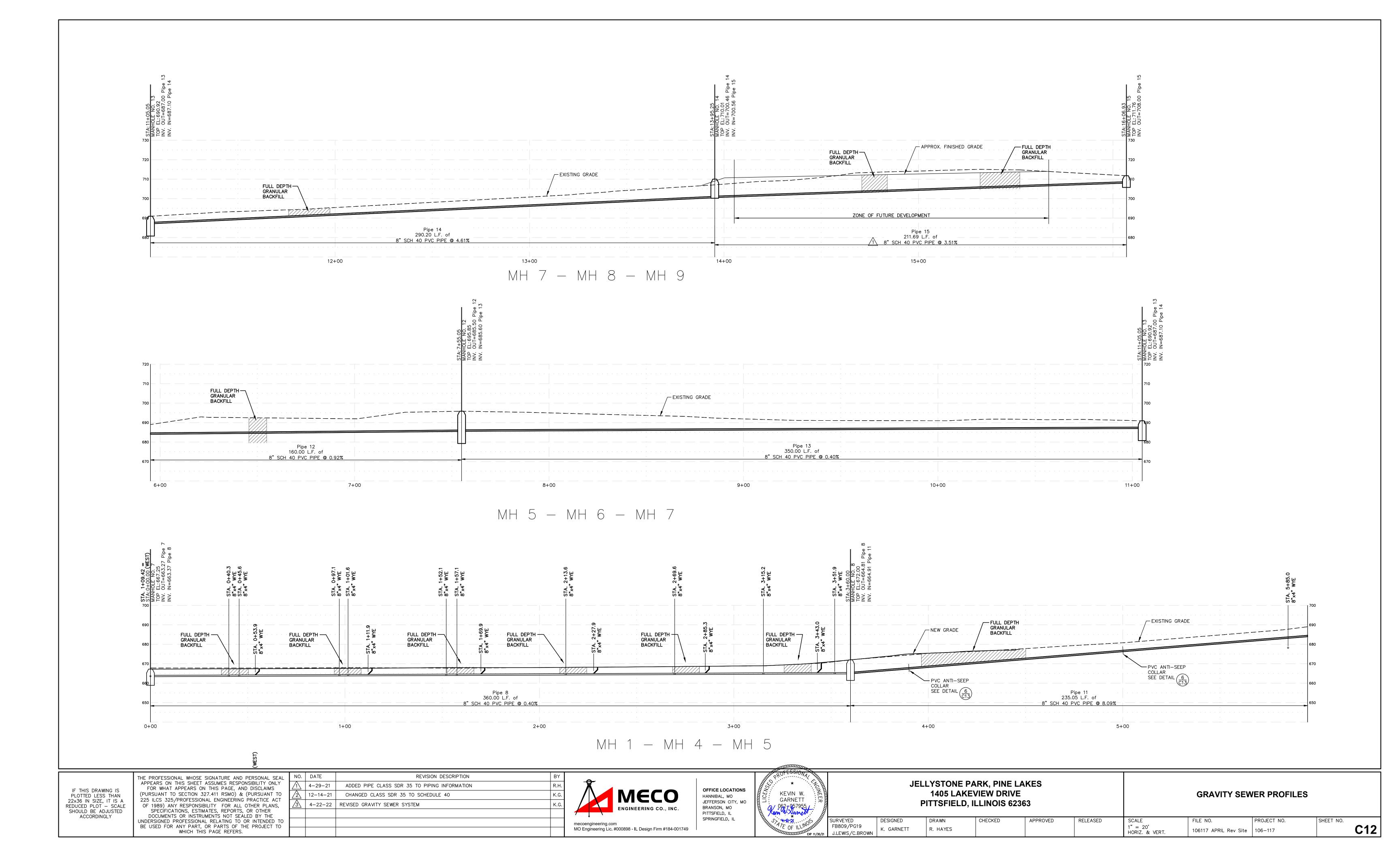


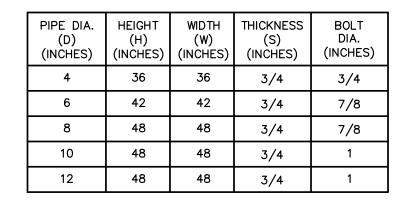


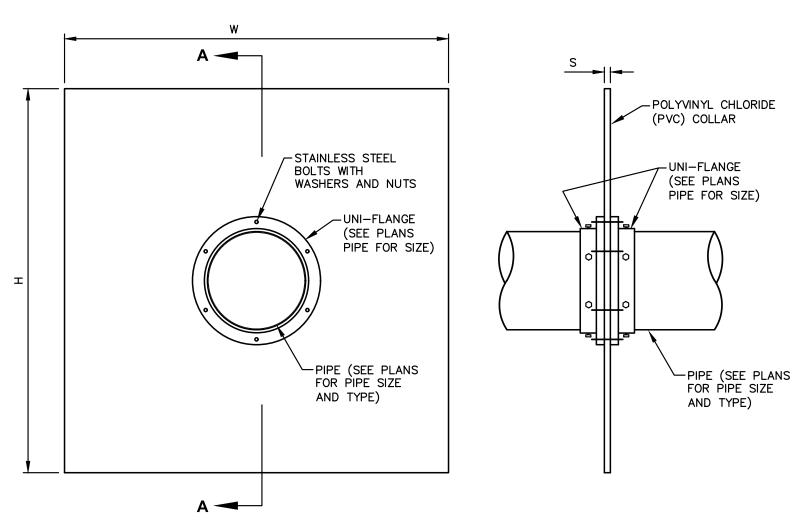












# **UPSTREAM ELEVATION**

### **SECTION A-A**

1. MAKE PIPE CONNECTIONS AS NEEDED TO ASSURE

A WATERTIGHT SYSTEM. 2. APPLY SILICON CAULK ON THE SEAMS AS NEEDED TO ASSURE A GOOD SEAL SO THAT THE COMPLETED INSTALLATION IS WATERTIGHT.



### **GENERAL NOTES**

1. MINIMUM TRENCH WIDTH SHALL BE MAINTAINED FROM 6" BELOW PIPE TO 12" ABOVE THE TOP OF PIPE.

2. IF PAYMENT IS AUTHORIZED, PAY LINES FOR ROCK REMOVAL SHALL BE BASED ON MAX. TRENCH WIDTH, SEE CHART.

3. PIPE BEDDING NOTE BELOW IS MINIMUM STANDARD, HOWEVER ANY MORE STRINGENT REQUIREMENTS SET BY PIPE SUPPLIER SHALL SUPERSEDE REQUIREMENTS SHOWN.

4. GRANULAR BEDDING GRADUATION SHALL BE AS 9. PAVEMENT REPLACEMENT TO CONSIST OF: FOLLOWS UNLESS REQUIRED BY THE PIPE

MANUFACTURER OR APPROVED BY THE ENGINEER. PERCENT PASSING 1/2" 3/8" 80-100 5-80

5. FLOWABLE FILL MIX SHALL BE AS FOLLOWS UNLESS OTHERWISE APPROVED BY THE ENGINEER.

MATERIAL	QUANTITY/CU YD
CEMENT	70 POUNDS
FLY ASH	300 POUNDS
FINE AGGREGATE	2600 POUNDS
WATER	50 GALLON

Г			
	PIPE DIA.	MIN. TRENCH WIDTH @ 12" ABOVE PIPE	MAX. TRENCH WIDTH FOR PAYMENT
	LESS THAN 8"	PIPE DIA +1'-0"	PIPE DIA +2'-0"
ſ	8"	1'-8"	2'-8"
ſ	10"	1'-10"	2'-10"
	12" 15"	2'-0" 2'-3" 2'-6" 2'-9"	3'-0" 3'-3" 3'-6"
Ī	15"	2'-3"	3'-3"
	18"	2'-6"	3'-6"
	21"	2'-9"	l 3'–9"
	24"	3'-0"	4'-0"
	27"	3'-3"	4'-3"
	30"	3'-0" 3'-3" 3'-6"	4'-6"
	36"	4'-0"	5'-0"

TRENCH WIDTH CHART

C13 NO SCALE

WHICH THIS PAGE REFERS.

6. UNSUITABLE BACKFILL MATERIAL SHALL BE DISPOSED OF BY CONTRACTOR AT HIS EXPENSE AND SUITABLE REPLACEMENT MATERIAL PROVIDED AT NO ADDITIONAL COST

7. ALL TRENCHES SHALL MEET O.S.H.A. REQUIREMENTS.

8. ROADWAY RESURFACING SHALL BE REPLACED AS SHOWN IN ACCORDANCE WITH PROJECT SPECIFICATIONS OR CURRENT REQUIREMENTS OF THE CONTROLLING AUTHORITY, WHICH EVER IS MORE STRINGENT AS DEFINED BY THE

ASPHALT
MATERIAL: HOT MIX ASPHALT THICKNESS: MATCH EXISTING, BUT NOT LESS THAN 4" COMPACTED IN PLACE NOTE: TACK COAT TOP OF FLOWABLE FILL OR PRIME CRUSHED STONE BASE AT A RATE OF 0.25 GALLON /

CONCRETE
MATERIAL: PORTLAND CEMENT CONCRETE 4,000 PSI @ 28 DAYS DOWEL WITH #4x24" @ 24" ON CENTER THICKNESS: MATCH EXISTING (NOT LESS THAN 6") NOTE: DELETE CRUSHED STONE BASE IF FLOWABLE FILL IS USED

MATERIAL: 1" MINUS CRUSHED STONE THICKNESS: MATCH EXISTING, BUT NOT LESS THAN 6" COMPACTED IN PLACE

10. UNLESS OTHERWISE NOTED ON THE PLANS, SDR 35 PVC PIPE SHALL NOT BE INSTALLED AT DEPTHS GREATER THAN 14 FEET AND SDR 26 PVC PIPE SHALL NOT BE INSTALLED AT DEPTHS GREATER 24 FEET.

### REPLACE PAVEMENT TO -EQUAL OR BETTER THAN EXISTING PAVEMENT, SEE - STRAIGHT NOTES 8 & 9. SAWED JOINTS 2'-0" MAX. PAY - SELECT BACKFILL -EXISTING LIMITS (TYP) MATERIALS PAVEMENT 8" COMPACTED -CRUSHED STONE BASE FINAL ROAD BACKFILL (FLOWABLE FILL OR COMPACTED GRANULAR MATERIAL PLACED IN 6" 6" MIN.TYP. INITIAI PIPE BEDDING AS BACKFILL REQUIRED IN TYPICAL TRENCH 6" MIN.TYP TRENCH WIDTH(TYP) —SPRINGLINE SEE CHART TYPICAL TRENCH TRENCH THRU PAVEMENT

**GRAVITY TRENCH CONDITIONS** NO SCALE

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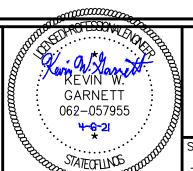
**GRAVITY TRENCH NOTES** 



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OFFICE LOCATIONS HANNIBAL, MO JEFFERSON CITY, MO BRANSON, MO PITTSFIELD, IL SPRINGFIELD, IL





# SURVEYED

R. HAYES

**SERVICE CONNECTION** 

NO SCALE

DESIGNED

K. GARNETT

**JELLYSTONE PARK, PINE LAKES 1405 LAKEVIEW DRIVE** PITTSFIELD, ILLINOIS 62363

CHECKED

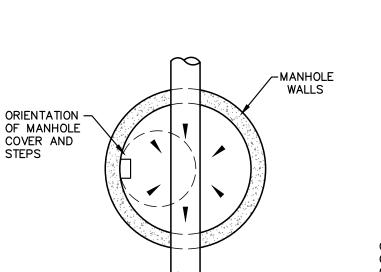
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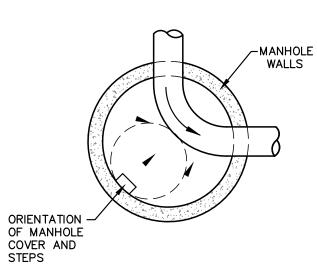
TYPICAL GRAVITY SEWER DETAILS

SCALE

NO SCALE

RELEASED





<u>ANGLE</u>

<u>CROSS</u>

-MANHOLE

**STRAIGHT** 

ORIENTATION -

OF MANHOLE

COVER AND

STEPS

ORIENTATION -OF MANHOLE COVER AND STEPS

- LESS THAN 24"

PROJECT NO.

C13

1. CONTRACTOR SHALL RECORD STATIONING OF ALL SERVICE CONNECTIONS AND

4. MANHOLE EXTERIOR SHALL BE

DAMP PROOFED WITH A SOLVENT

5. PLUG ALL LIFT HOLES AND COVER

6. FIELD PIPE OPENINGS SHALL ONLY

7. WHEN CONSTRUCTED IN A STREET

OUTSIDE WITH BITUMASTIC SEALER.

BASED ASPHALT NON-FIBERED

BE ALLOWED WITH ENGINEER'S

OR DRIVEWAY, BACKFILL WITH GRANULAR MATERIAL FULL DEPTH OR FLOWABLE FILL AND REPLACE SURFACING TO MATCH EXISTING OR

AS SHOWN ON PLANS.

- SELF SEALING MANHOLE

COVER & FRAME (CAST IRON)

NEENAH R-1642 FRAME AND

LID WITH"SANITARY SEWER"

-1" GROUT OR APPROVED BITUMASTIC SEAL

- ADJUSTABLE RINGS W/DAMP PROOFING - MANHOLE STEPS

SPACED 16" O.C.

OF APPROVED

AS SPECIFIED.

─HAND FORMED OR

─4" MIN. COMPACTED

CRUSHED STONE BASE

HAND FORMED OR
PRECAST CONC. INVERT

— JOINT WITH TWO STRIPS

BITUMASTIC MATERIAL

OR RUBBER GASKETS

PROVIDE TO THE ENGINEER PRIOR TO PROJECT COMPLETION. 2. SIZE OF SERVICE LINE SHALL BE 4" MIN. OR AS REQUIRED BY DRAWINGS OR CONTRACT DOCUMENTS.

3. SERVICE CONNECTION SHALL BE INSTALLED, SUBJECT TO ALL TEST REQUIREMENTS.

**GENERAL NOTES:** 

1. MANHOLE LID SHALL BE FLUSH

WITH FINISHED GRADE UNLESS

OTHERWISE SHOWN ON PLANS.

2. ALL CONCRETE MANHOLES

COMPRESSIVE TYPE GASKET

SPECIFIED.

SEALING SYSTEM, INC.

6" INFI-SHIELD GATOR

CONC. SLAB FOR M.H. -

REIN. W/#5 BARS @ 12" ON CENTËR EACH WAY

DEPTH OF 10' OR GREATER

**C13**∕

WRAP (OR EQUAL)

SHALL HAVE A CAST IN PLACE

JOINT FOR SEWER PIPE SEALS.

3. MANHOLE JOINTS SHALL BE

UNIFORM, PROVIDE COMPATIBLE FIT, BE FREE FROM HONEYCOMBS OR CHIPS AND BE SEALED AS

PRECAST 🛏

THRU 15" PIPE

CONC. FOR 8"

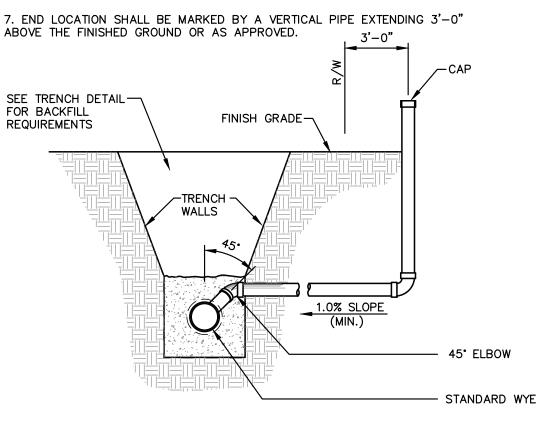
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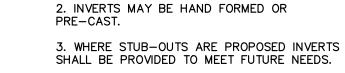
**√** 5 **→** STANDARD / DROP MANHOLE

4. SERVICE WYE AND SERVICE LINE SHALL BE THE SAME MATERIAL AS MAIN UNLESS NOTED OTHERWISE.

5. IF THE MAIN IS CONSTRUCTED IN A ROADWAY EXTEND SERVICE CONNECTION TO A POINT 3 FEET BEYOND STREET RIGHT OF WAY AND/OR OTHER EXISTING UNDER GROUND UTILITIES.

6. END OF SERVICE LINE SHALL HAVE A REMOVABLE AIR / WATER TIGHT PLUG. 7. END LOCATION SHALL BE MARKED BY A VERTICAL PIPE EXTENDING 3'-0"





**INVERT NOTES:** 

MANHOLE.

∕-MANHOLE

WALLS

4. ALL SIDE SLOPES SHALL BE SUCH AS TO MINIMIZE SOLIDS DEPOSITIONS.

1. DEPTH OF ALL CHANNELS SHALL BE 1/2 I.D. OF LARGEST PIPE ENTERING OR LEAVING

5. CHANNEL SHALL BE CONSTRUCTED FROM INVERT OF ENTERING PIPE OR PIPES TO INVERT OF OUTLET PIPE.

**INVERTS** 

6. LOCATION SHALL BE COMPUTED BY MULTIPLYING THE DISTANCE FROM THE A-LOC TO THE CENTER OF THE MANHOLE BY THE PIPE SLOPE IN FT/FT.



**ELEVATION** 



FILE NO.

106117 Gravity Sewer Det | 106-117

