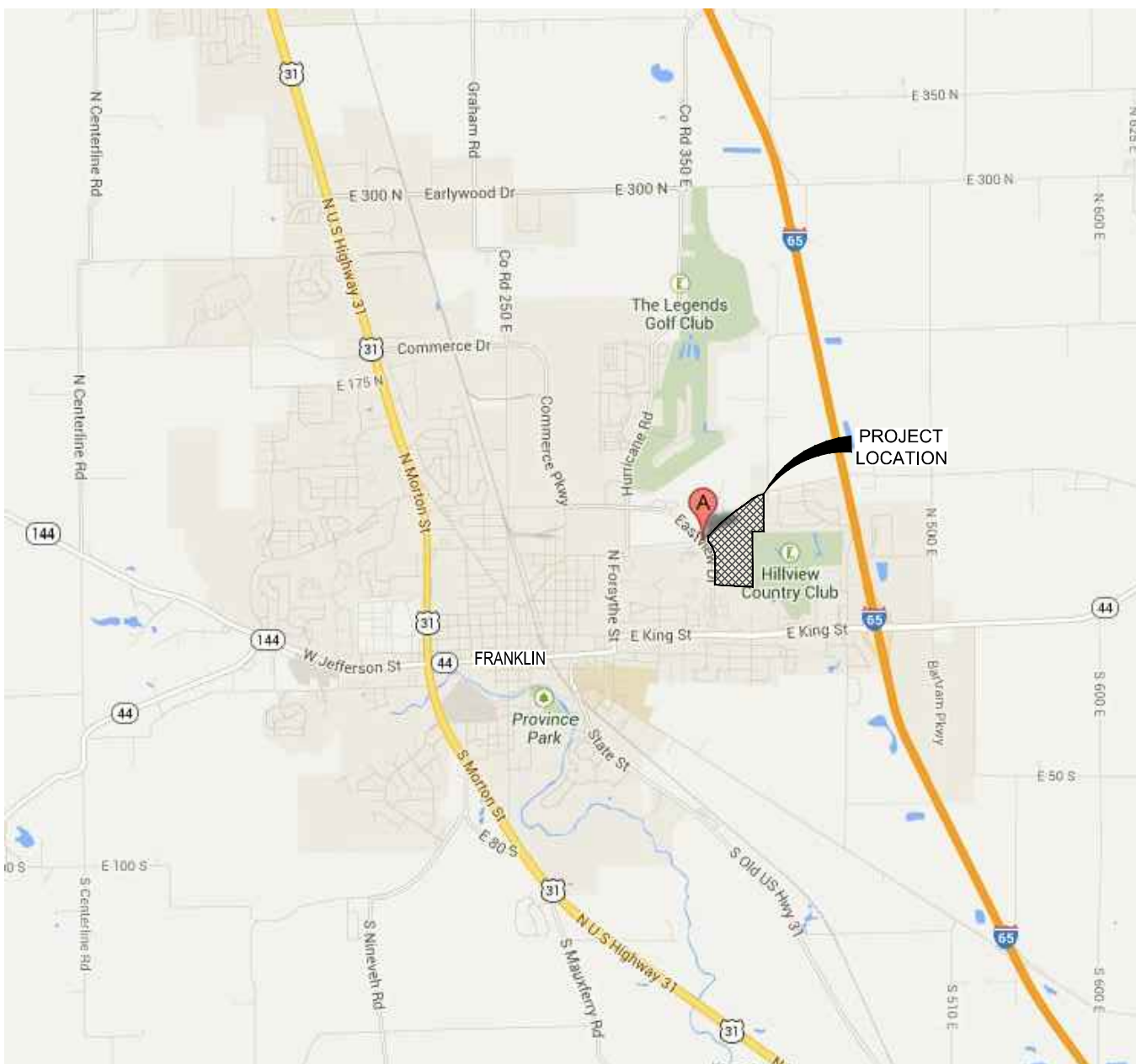


FINAL CONSTRUCTION PLANS

HOMESTEADS AT HILLVIEW - SECTION 3

FRANKLIN, INDIANA

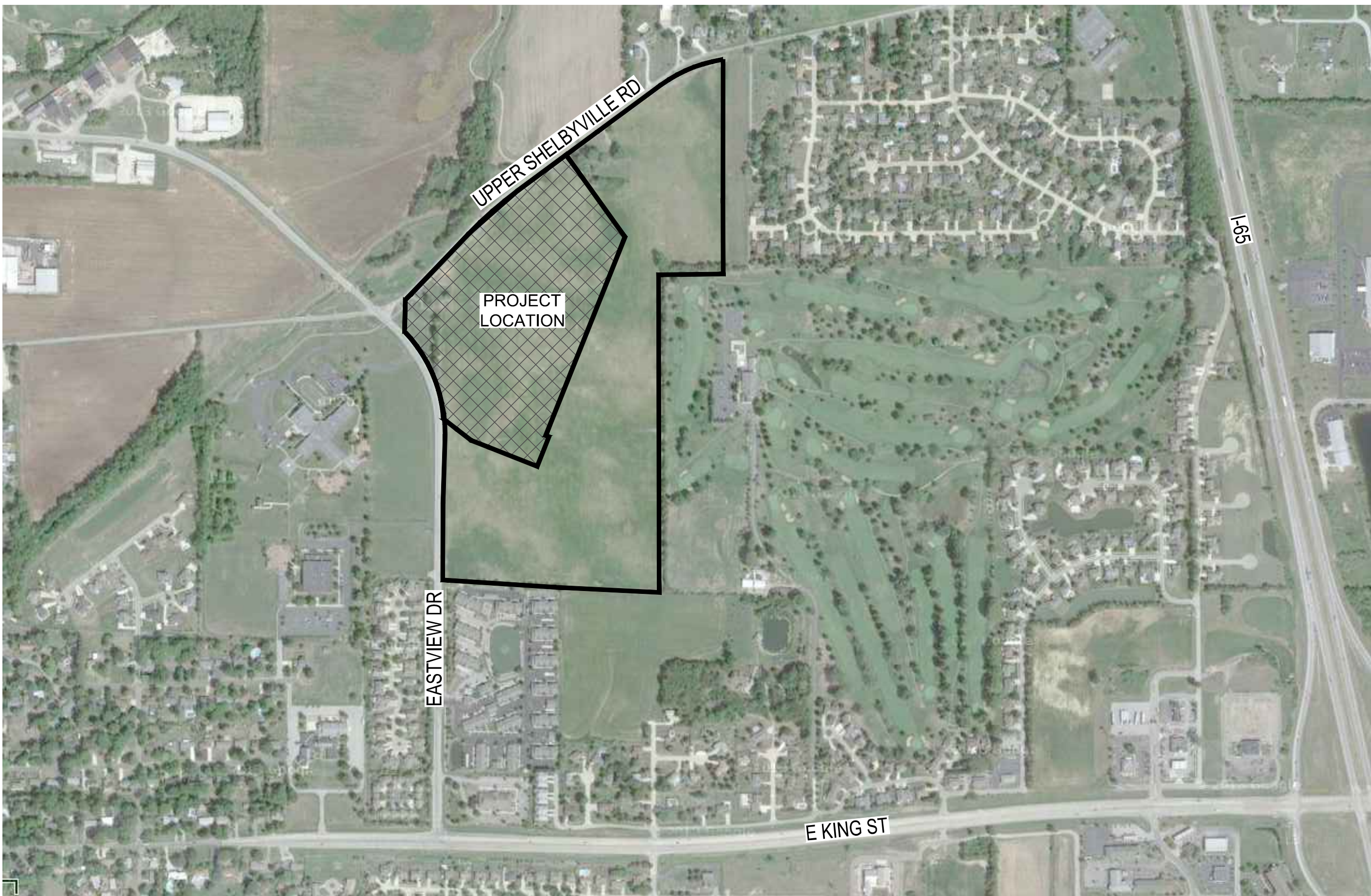


VICINITY MAP
NO SCALE

OWNER/DEVELOPER
HILLVIEW PROPERTIES, LLC
7502 S. SUSAN LANE
TRAFALGAR, IN 46181

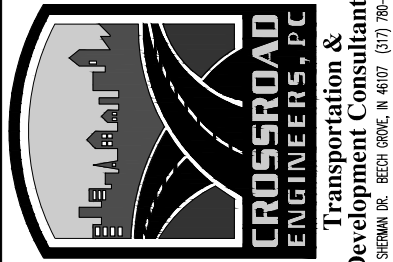
ENGINEER
CROSSROAD ENGINEERS, PC
3417 SHERMAN DRIVE
BEECH GROVE, IN 46107
PHONE: (317) 780-1555
CONTACT: GREGORY J. ILKO
EMAIL: gilko@crossroadengineers.com

DELEVOPER
PAD COMMERCIAL LLC
P.O. BOX 5
TRAFALGAR, IN 46181
PHONE: (317) 339-9729
CONTACT: PETE GRIMMER
EMAIL: pete.grimmer@gmail.com



LOCATION MAP
NO SCALE

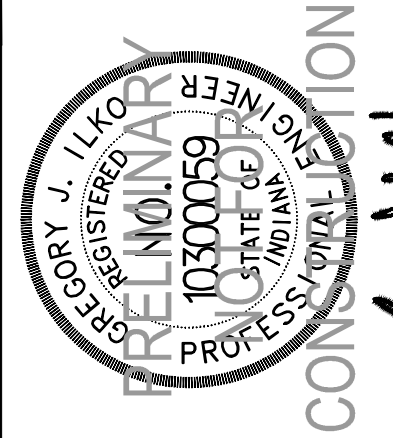
PLAN INDEX	
SHEET #	SUBJECT
100	TITLE SHEET
200	TOPOGRAPHICAL SURVEY
300-301	SITE DIMENSION PLAN
302	STREET SYSTEM PLAN
400-401	UTILITY PLAN
402	STRUCTURE DATA TABLES
500-501	GRADING PLAN
502	INTERSECTION GRADING PLAN
600-602	ROAD PLAN AND PROFILE
900-901	EROSION CONTROL PLAN
902	EROSION CONTROL DETAILS
1000	MISCELLANEOUS DETAILS
1100	SPECIFICATIONS
1200-1202	LANDSCAPE PLAN



TITLE SHEET

HOMESTEADS AT HILLVIEW - SECTION 3

JOB No. TEN
DATE JULY 12, 2018
DRAWN
DESIGNED
APPR.
GJJ



NO.	DATE	REVISIONS	BY	APPR.
9				
8				
7				
6				
5				
4				
3				
2				
1				

TOPOGRAPHICAL NOTES	
1.	CONTRACTOR SHALL DISPOSE OF ALL MATERIALS IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL REGULATIONS.
2.	UTILITIES ARE GRAPHICAL REPRESENTATION PER SURVEY AND MAPPING. CONTRACTOR SHALL FIELD VERIFY ALL UTILITIES PRIOR TO CONSTRUCTION.
3.	WELLS AND SEPTIC SYSTEMS SHALL BE ABANDONED PER ALL FEDERAL, STATE, AND LOCAL REGULATIONS. A REPRESENTATIVE FROM THE JOHNSON COUNTY HEALTH DEPARTMENT SHALL BE PRESENT DURING REMOVAL OPERATIONS. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL HAZARDOUS MATERIAL TESTING AND REMOVAL (IF DEEMED NECESSARY) FOR THE EXISTING STRUCTURES.
4.	CONTRACTOR SHALL COORDINATE WITH APPLICABLE UTILITY COMPANIES FOR SERVICE DIS-CONNECTIONS.

- FLOODPLAIN INFORMATION**

THE PROPERTY PLOTS BY SCALE AS BEING IN ZONE "A" AND "X" OF THE FLOOD INSURANCE RATE MAP (FIRM) FOR JOHNSON COUNTY, INDIANA, COMMUNITY PANEL NO. 18081 C 02320 AND 02310, DATED AUGUST 2, 2007. THE ACCURACY OF ALL FLOOD HAZARD DATA SHOWN ON THIS PROJECT IS SUBJECT TO MAP SCALE UNCERTAINTY AND TO ANY OTHER UNCERTAINTY IN LOCATION OF ELEVATION ON THE RECORDED FLOOD INSURANCE RATE MAP.























































BENCHMARK INFORMATION

BENCHMARK - JUN 6 - ELEVATION 721.534 FEET (DESIGN ELEVATION=720.604 FEET)
 IN JOHNSON COUNTY, FRANKLIN QUADRANGLE, IN THE SOUTHEAST QUARTER OF SECTION 14, TOWNSHIP 12 NORTH,
 RANGE 4 EAST, SECOND PRINCIPAL MERIDIAN, AT FRANKLIN; 0.2 NORTH ALONG FORTSHYRE STREET FROM ITS
 INTERSECTION WITH STATE ROAD 44 TO AN ELECTRIC TOWER, SET IN THE TOP OF THE SOUTHWEST CONCRETE
 SUPPORT OF THE ELECTRIC POWER TAKE OFF TOWER, 110 FEET EAST OF THE CENTERLINE OF FORTSHYRE STREET,
 50 FEET SOUTH OF HURRICANE CREEK, 1.0 FOOT ABOVE THE "GROUND", AN INDIANA FLOOD CONTROL AND WATER
 RESOURCES COMMISSION BRASS CONTROL STATION TABLET, STAMPED "JUN 6"

TM#4000
 RR SPIKE SET IN SOUTH SIDE OF POWERPOLE UP $\pm 1.0'$ (PP#58636) ELEV.=744.36

TM#4011
 RR SPIKE SET IN SOUTHWEST SIDE OF POWERPOLE UP $\pm 1.0'$ SQUARE METAL TAG SAYS "PUBLIC SERVICE CO. OF
 IND." (PP#250678) ELEV.=728.18

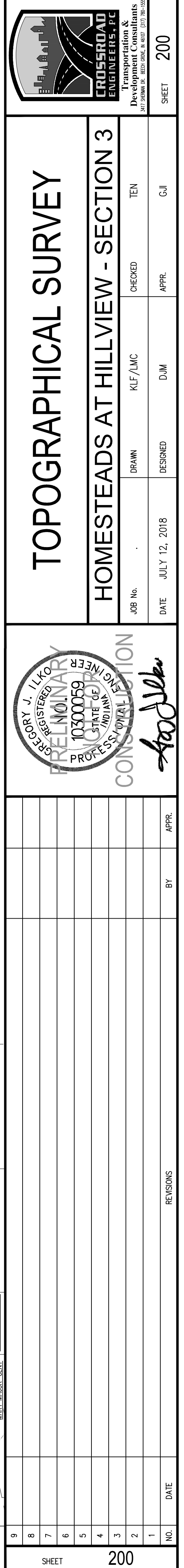
TM#4002
 RR SPIKE SET IN NORTH SIDE OF POWERPOLE UP $\pm 1.0'$ TAG SAYS "HE NEEDHAM JCT #2" (PP#8254196)
 ELEV.=736.65

	POWERPOLE W/LIGHT		800		CONTOURS
	POWERPOLE GROUND				PROPERTY LINE
	POWERPOLE UTILITY				SECTION LINE
	POWERPOLE				RIGHT-OF-WAY
	LIGHTPOLE				ADJOINER LINE
	ELECTRIC MANHOLE				PAVEMENT LINE
	ELECTRIC CABINET				EASEMENT LINE
	GUYWIRE				FLOODPLAIN LINE
	TELEPHONE RISER				DITCH LINE
	WATER METER				FARM FIELD FENCE
	FIRE HYDRANT				GUARDRAIL
	WATER VALVE				ELECTRIC LINE
	SANITARY MANHOLE				WATER LINE
	SIGN				STORM SEWER LINE
	TREE				SANITARY SEWER LINE
	MONUMENT FOUND				TREE LINE
	BENCHMARK				
	ASPHALT		BUILDING		CONCRETE
	REMOVAL/DEMOLISH				

PART OF THE SOUTHEAST QUARTER OF SECTION 12, AND A PART OF THE NORTHEAST QUARTER OF SECTION 13,
 MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT A STONE FOUND AT THE NORTHEAST CORNER OF THE NORTHEAST QUARTER OF THE SAID SECTION,
 THENCE: SOUTH 60 DEGREES 07 MINUTES 33 SECONDS EAST ON AND ALONG THE EAST LINE, THEREK 432.04 FEET
 TO THE NORTHEAST CORNER OF THE SAID SECTION; THENCE: SOUTH 60 DEGREES 07 MINUTES 33 SECONDS
 SOUTHEAST CORNER OF THE PLAT OF HOMESTEADS AT HILLVIEW-SECTION 1 MAJOR SUBDIVISION, SECOND PLAT
 OF THE SAID SECTION; THENCE: SOUTH 60 DEGREES 07 MINUTES 33 SECONDS EAST ON AND ALONG THE EAST LINE
 ALONG SAID PLAT THE FOLLOWING TWO COURSES: 1) SOUTH 09 DEGREES 23 MINUTES 00 SECONDS WEST 295.42 FEET
 TO THE NORTHEAST CORNER OF THE SAID SECTION; 2) SOUTH 21 DEGREES 46 MINUTES 25 SECONDS WEST 195.62 FEET TO THE NORTHEAST CORNER OF THE PLAT
 OF THE SAID SECTION; THENCE: SOUTH 21 DEGREES 46 MINUTES 25 SECONDS WEST 195.62 FEET TO THE NORTHEAST CORNER OF THE PLAT
 23.9 N IN SAID RECORDED'S OFFICE; THENCE: ALONG BOTH PLATS THE FOLLOWING SEVEN COURSES: 1) SOUTH 21
 DEGREES 46 MINUTES 25 SECONDS WEST 295.65 FEET TO THE NORTHEAST CORNER OF THE PLAT OF THE SAID SECTION; 2) SOUTH 21
 DEGREES 46 MINUTES 25 SECONDS WEST 295.65 FEET TO THE NORTHEAST CORNER OF THE PLAT OF THE SAID SECTION; 3) SOUTH 21 DEGREES 46 MINUTES 25 SECONDS WEST 82.38 FEET; 4) NORTH 08 DEGREES 13 MINUTES 15
 SECONDS WEST 50.00 FEET; 5) NORTH 21 DEGREES 46 MINUTES 25 SECONDS EAST 37.00 FEET TO A NON-TANGENT
 CURVE ON THE EAST LINE TO THE CENTER LINE OF THE EAST LINE OF THE SAID SECTION; 6) ALONG THE EAST LINE
 BY A LONG CURVE HAVING A BEARING OF NORTH 23 DEGREES 13 MINUTES 35 SECONDS WEST 177.00 FEET TO THE
 POINT OF BEGINNING; THENCE CONTINUING ALONG SAID SECTION 2 PLAT THE FOLLOWING EIGHT COURSES: 1) SOUTH
 21 DEGREES 46 MINUTES 25 SECONDS WEST 195.62 FEET TO THE NORTHEAST CORNER OF THE PLAT OF THE SAID SECTION;
 18.91 FEET; 2) SOUTH 21 DEGREES 46 MINUTES 25 SECONDS WEST 180.00 FEET; 4) NORTH 08 DEGREES 16 MINUTES 26 SECONDS
 35 SECONDS WEST 50.00 FEET; 5) NORTH 60 DEGREES 12 MINUTES 54 SECONDS WEST 18.34 FEET TO A TANGENT
 CURVE ON THE EAST LINE TO THE CENTER LINE OF THE EAST LINE OF THE SAID SECTION; 6) ALONG THE EAST LINE
 SUBTENDED BY A LONG CURVE HAVING A BEARING OF NORTH 50 DEGREES 51 MINUTES 52 SECONDS WEST AND A
 RADIUS OF 115.00 FEET TO THE CENTER LINE OF THE EAST LINE OF THE SAID SECTION; 7) ALONG THE EAST LINE
 53.15 FEET; 8) NORTH 21 DEGREES 46 MINUTES 25 SECONDS WEST 15.00 FEET TO NON-TANGENT CURVE ON THE EAST LINE OF EASTVIEW DRIVE PER
 INSTRUMENT NUMBER 2015-019986 RECORDED IN SAID RECORDER'S OFFICE; THENCE: ALONG SAID INSTRUMENT
 10.00 FEET TO THE NORTHEAST CORNER OF THE PLAT OF THE SAID SECTION; 9) ALONG THE EAST LINE OF THE SAID SECTION
 OF 86.50 FEET SUBTENDED BY A LONG CURVE HAVING A BEARING OF NORTH 19 DEGREES 24 MINUTES
 48 SECONDS WEST AND A RADIUS OF 115.00 FEET TO THE CENTER LINE OF THE EAST LINE OF THE SAID SECTION; 10) NORTH 46
 DEGREES 38 MINUTES 21 MINUTES 43 SECONDS WEST 40.00 FEET TO THE CENTER LINE OF UPPER
 SHELBYSVILLE ROAD; THENCE ALONG SAID CENTER LINE THE FOLLOWING THREE COURSES: 1) NORTH 43 DEGREES 38
 MINUTES 21 SECONDS WEST 11.00 FEET TO THE CENTER LINE OF THE SAID SECTION; 2) ALONG THE CENTER LINE OF THE
 THE RIGHT HAVING A RADIUS OF 216.39 FEET AND SUBTENDED BY A LONG CURVE HAVING A BEARING OF NORTH 48
 DEGREES 36 MINUTES 22 SECONDS EAST AND A LENGTH OF 370.02 FEET; 3) NORTH 43 DEGREES 38 MINUTES 21
 SECONDS WEST 11.00 FEET TO THE CENTER LINE OF THE SAID SECTION; 4) ALONG THE CENTER LINE OF THE SAID SECTION
 PLAT THE FOLLOWING FIVE COURSES: 1) SOUTH 36 DEGREES 25 MINUTES 33 SECONDS EAST 195.00 FEET; 2) SOUTH
 36 DEGREES 25 MINUTES 33 SECONDS EAST 195.00 FEET; 3) SOUTH 36 DEGREES 25 MINUTES 33 SECONDS EAST 195.00 FEET;
 39.88 FEET; 4) SOUTH 21 DEGREES 46 MINUTES 25 SECONDS WEST 543.64 FEET; 5) SOUTH 21 DEGREES 46
 MINUTES 25 SECONDS WEST 50.00 FEET TO THE POINT OF BEGINNING.

CONTAINING 27.718 ACRES, MORE OR LESS

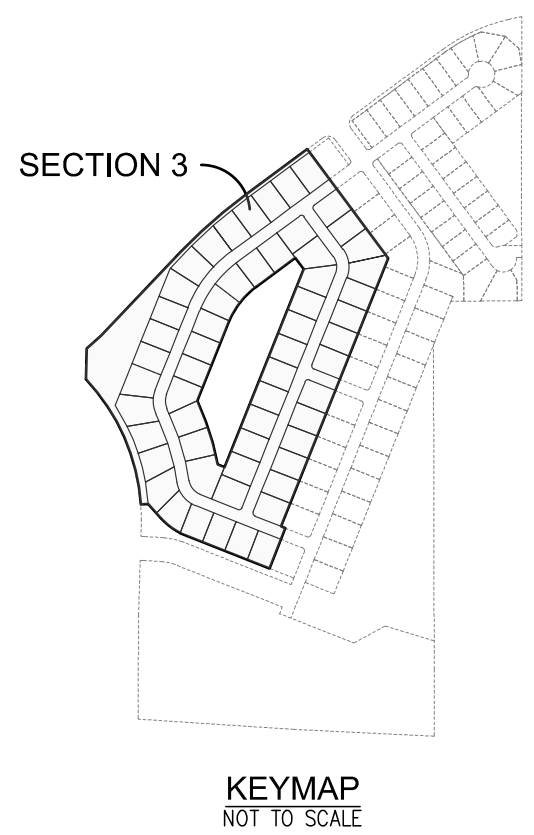
[illegible]

DIRECTORY PATH : R:\Active\John Grimmer\Hillview CC Property\CAD\Phase 3 - Plans
DATE/USER : 7/12/2018 8:43 AM / LCOX

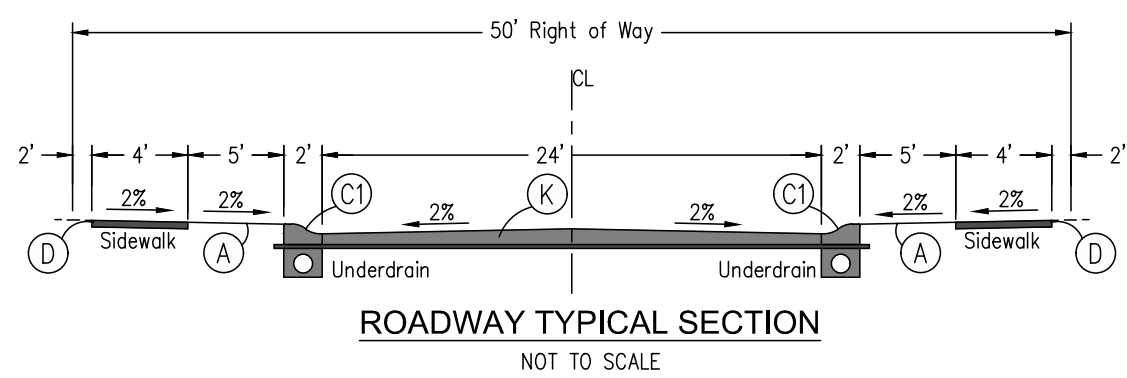
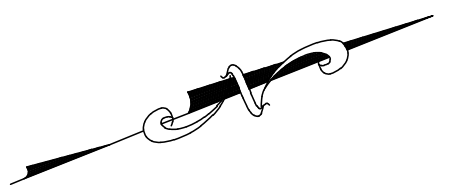
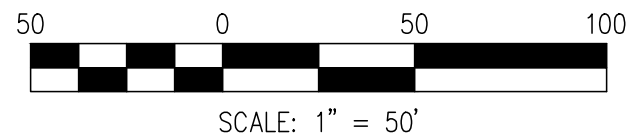


PROPOSED LEGEND

- PROPERTY LINE
- SECTION LINE
- EASEMENT LINE
- DITCH LINE
- SANITARY SEWER WITH MANHOLE
- STORM SEWER W/MANHOLE & END SECTION
- WATER LINE
- WATER SERVICE LINE
- STORM INLETS
- WATER TEE
- 45° BEND
- 11.25° BEND
- TAPPING SLEEVE
- WATER VALVE
- FIRE HYDRANT
- SIGN



Indiana811
Know what's Below. Call before you dig.
"IT'S THE LAW"
CALL 2 WORKING DAYS BEFORE YOU DIG
CALL TOLL FREE
1-800-382-5544 or 811
PER INDIANA STATE LAW (S-69-1991) IT IS AGAINST THE LAW TO EXCAVATE WITHOUT NOTIFYING THE UNDERGROUND LOCATION SERVICE TWO (2) WORKING DAYS BEFORE COMMENCING WORK.



SITE DIMENSION LEGEND

- (A) MULCH SEEDING/LANDSCAPE AREAS
- (B) ASPHALT BUTT JOINT (SEE DETAIL-SHEET 1000)
- (C) CONCRETE ROLL CURB (SEE DETAIL-SHEET 1000)
- (C2) MODIFIED ROLL CURB (SEE DETAIL-SHEET 1000)
- (D) 4" CONCRETE SIDEWALK (SEE DETAIL-SHEET 1000)
- (F) HANDICAP RAMP, TYPE 'C' (SEE DETAIL-SHEET 1000)
- (J) SAWCUT
- (K) TYPICAL ASPHALT SECTION
1 1/2" HMA SURFACE 9.5mm, ON
3 1/2" HMA INTERMEDIATE 19.0mm, ON
8" COMPACTED AGGREGATE #53, ON
COMPACTED SUBGRADE (SEE DETAIL-SHEET 1000)
- (1) STOP BAR, THERMOPLASTIC, SOLID WHITE, 24"
- (2) SIGNAGE STOP SIGN (SEE SHEET 302)
- (X) DECORATIVE LIGHT POLES & FOUNDATIONS (PER OWNER/PUD)
- (+) STREET NAME SIGNAGE (SEE SHEET 302)

SITE DIMENSION NOTES

- STREET SIGNAGE AND LIGHTING SHALL CONFORM TO CITY OF FRANKLIN AND HOMESTEADS AT HILLVIEW PUD STANDARDS. CONTRACTOR SHALL COORDINATE WITH OWNER, PUD DOCUMENTS AND/OR CITY OF FRANKLIN FOR LIGHT STYLES AND LAYOUT.
- WATER MAIN INSTALLATION SHALL BE IN ACCORDANCE WITH THE INDIANA AMERICAN WATER COMPANY'S STANDARDS AND SPECIFICATIONS AND SHALL HAVE MINIMUM 54" OF COVER. CONTRACTOR SHALL COORDINATE WITH INDIANA AMERICAN WATER COMPANY FOR PERMITTING, CONNECTION AND TESTING PROCEDURES AND REQUIREMENTS.
- CONTRACTOR SHALL NOTIFY OWNER, ENGINEER, AND CITY OF FRANKLIN PRIOR TO PROOF ROLL OF SUBGRADE. IF PROOF ROLL EXCEEDS MAXIMUM OF A QUARTER INCH (1/4") DEFLECTION, CONTRACTOR SHALL COORDINATE WITH ENGINEER AND CITY OF FRANKLIN TO DETERMINE IF SUBGRADE STABILIZATION IS REQUIRED.
- ALL RADI DIMENSIONS ARE TO THE FACE OF PROPOSED CURB.
- SIGNAGE SHALL INCLUDE ALL NECESSARY HARDWARE AND FITTINGS, INCLUDING 10 FT. OF 11 GAUGE FLANGED CHANNEL SIGN POST. DECORATIVE SIGNAGE PER OWNER.
- REFER TO ARCHITECTURAL PLANS FOR ADDITIONAL SIGNAGE. VERIFY CONFLICTS WITH OWNER.
- CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING TRAFFIC AND PROVIDING ALL NECESSARY FLAGMAN, BARRELS, SIGNAGE, ETC. DURING CONSTRUCTION. ALL APPLICABLE M.U.T.C.D. STANDARDS SHALL GOVERN THIS WORK.
- CONTRACTOR SHALL COORDINATE WITH APPLICABLE UTILITY COMPANY FOR WATER, CABLE, ELECTRIC, GAS, AND TELEPHONE CONNECTION SERVICE POINTS.
- CONTRACTOR SHALL COORDINATE WITH OWNER, PUD DOCUMENTS AND CITY OF FRANKLIN FOR ALL LANDSCAPING STANDARDS AND SPECIFICATIONS.
- EXISTING UTILITY SIZE AND MATERIAL INFORMATION SHOWN ON THESE PLANS ARE PER THE BEST GRAPHICAL AND VISIBLE INFORMATION AVAILABLE. CONFLICTS MAY EXIST AND IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY ALL SIZING AND MATERIAL INFORMATION PROVIDED. IF ACTUAL CONDITIONS DIFFER FROM THAT INFORMATION SHOWN ON THE PLANS, THE CONTRACTOR SHALL, PRIOR TO THE INSTALLATION OF ANY PROPOSED INFRASTRUCTURE, NOTIFY THE DESIGN ENGINEER IMMEDIATELY.

SETBACK TABLE	
DEVELOPMENT STANDARD	HOMESTEADS - LOTS 65-122
FRONT YARD SETBACK (ADJACENT TO LOCAL STREET)	20 FT.
SIDE YARD SETBACK	10 FT. - PRIMARY STRUCTURE 5 FT. - ACCESSORY STRUCTURE
REAR YARD SETBACK	25 FT. - PRIMARY STRUCTURE 5 FT. - ACCESSORY STRUCTURE

SITE DIMENSION PLAN

HOMESTEADS AT HILLVIEW - SECTION 3

JOB NO.	DRAWN	KLF/LWC	CHECKED	TEN
DATE	JULY 12, 2018	DESIGNED	DJM	CJJ

REGISTERED PROFESSIONAL ENGINEER
STATE OF INDIANA
100005
BRECKORY J. ILLIO

APPROVED
Handwritten Signature

NO.	DATE	REVISIONS	BY	APPR.
1				
2				
3				
4				
5				
6				
7				
8				

SHEET

300



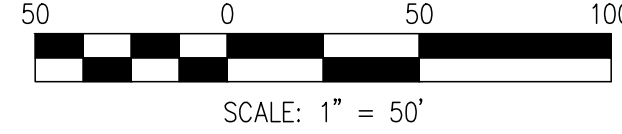
SITE DIMENSION NOTES

1. STREET SIGNAGE AND LIGHTING SHALL CONFORM TO CITY OF FRANKLIN AND HOMEDETS/AT HILLVIEW PUD STANDARDS. CONTRACTOR SHALL COORDINATE WITH OWNER, PUD DOCUMENTS AND/OR CITY OF FRANKLIN FOR LIGHT STYLES AND LAYOUT.
2. WATER MAIN INSTALLATION SHALL BE IN ACCORDANCE WITH THE INDIANA AMERICAN WATER COMPANY'S STANDARDS AND SPECIFICATIONS AND SHALL HAVE MINIMUM 54" OF COVER. CONTRACTOR SHALL COORDINATE WITH INDIANA AMERICAN WATER COMPANY FOR PERMITTING, CONNECTION AND TESTING PROCEDURES AND REQUIREMENTS.
3. CONTRACTOR SHALL NOTIFY OWNER, ENGINEER, AND CITY OF FRANKLIN PRIOR TO PROOF ROLL OF SUBGRADE. IF PROOF ROLL EXCEEDS MAXIMUM OF A QUARTER INCH (25%) DEFLECTION, CONTRACTOR SHALL COORDINATE WITH ENGINEER AND CITY OF FRANKLIN TO DETERMINE IF SUBGRADE STABILIZATION IS REQUIRED.
4. ALL RADI DIMENSIONS ARE TO THE FACE OF PROPOSED CURB.
5. CONTRACTOR SHALL INCLUDE ALL NECESSARY HARDWARE AND FITTINGS, INCLUDING 10 FT. OF 11 GAUGE FLANGED CHANNEL SIGN POST. DECORATIVE SIGNAGE PER OWNER.
6. REFER TO ARCHITECTURAL PLANS FOR ADDITIONAL SIGNAGE, VERIFY CONFLICTS WITH OWNER.
7. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING TRAFFIC AND PROVIDING ALL NECESSARY FLAGMAN, BARRELS, SIGNAGE, ETC. DURING CONSTRUCTION. ALL APPLICABLE MUTCD STANDARDS SHALL GOVERN THE WORK.
8. CONTRACTOR SHALL COORDINATE WITH APPLICABLE UTILITY COMPANY FOR WATER, CABLE, ELECTRIC, GAS, AND TELEPHONE CONNECTION SERVICE POINTS.
9. DESIGNER SHALL BE PROVIDED BY OTHERS. CONTRACTOR SHALL COORDINATE WITH OWNER, PUD DOCUMENTS AND CITY OF FRANKLIN FOR ALL LANDSCAPING STANDARDS AND SPECIFICATIONS.
10. EXISTING UTILITY SIZE AND MATERIAL INFORMATION SHOWN ON THESE PLANS ARE PER THE BEST GRAPHICAL AND VISIBLE INFORMATION AVAILABLE. CONFLICTS MAY EXIST AND IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO HELP VERIFY ALL SIZING AND MATERIAL INFORMATION. IF ANY DISCREPANCY OR ADDITIONAL INFORMATION IS REQUIRED SHOWN ON THE PLANS, THE CONTRACTOR SHALL, PRIOR TO THE INSTALLATION OF ANY PROPOSED INFRASTRUCTURE, NOTIFY THE DESIGN ENGINEER IMMEDIATELY.



Curve #	Radius	Length	Chord Direction	Chord Length
C4	100.00'	104.25'	N38°34'40"W	99.59'
C5	1035.00'	306.33'	N17°11'30"W	305.21'
C6	100.00'	82.81'	N01°56'54"W	80.46'
C7	500.00'	277.51'	N37°40'26"E	273.96'
C8	100.00'	101.58'	N07°19'34"W	97.27'

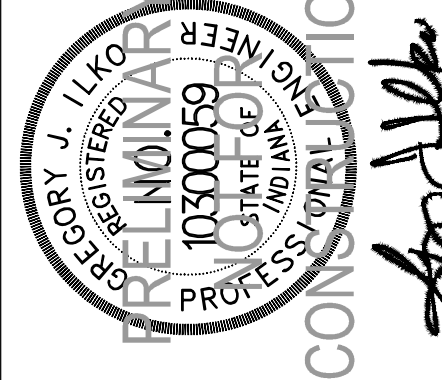
Curve Table: Lot



THESE PLANS ARE BASED UPON INFORMATION
FROM AN ALTA/ACSM LAND TITLE SURVEY
PERFORMED BY CKW LAND SURVEYING, INC. WITH
WORK ORDER NO. 130100 AND DATED JUNE 7,
2013 AND SURVEY INFORMATION PROVIDED BY
JERRY WIGGINS SURVEYING.



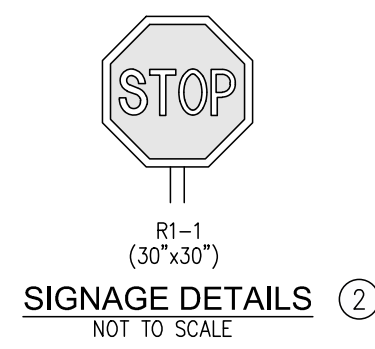
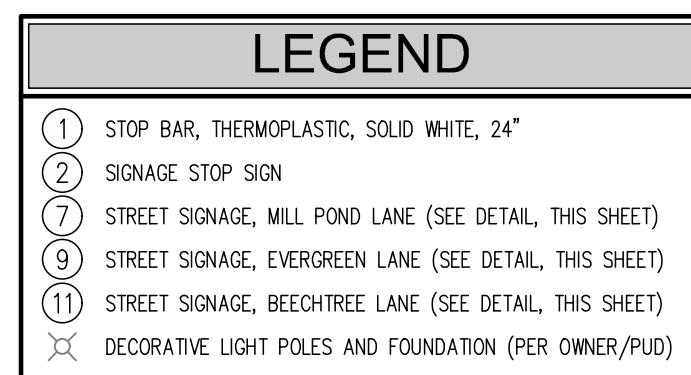
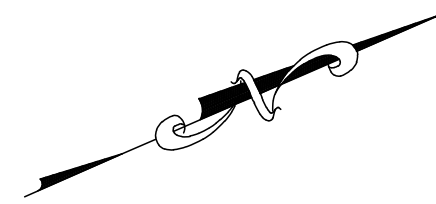
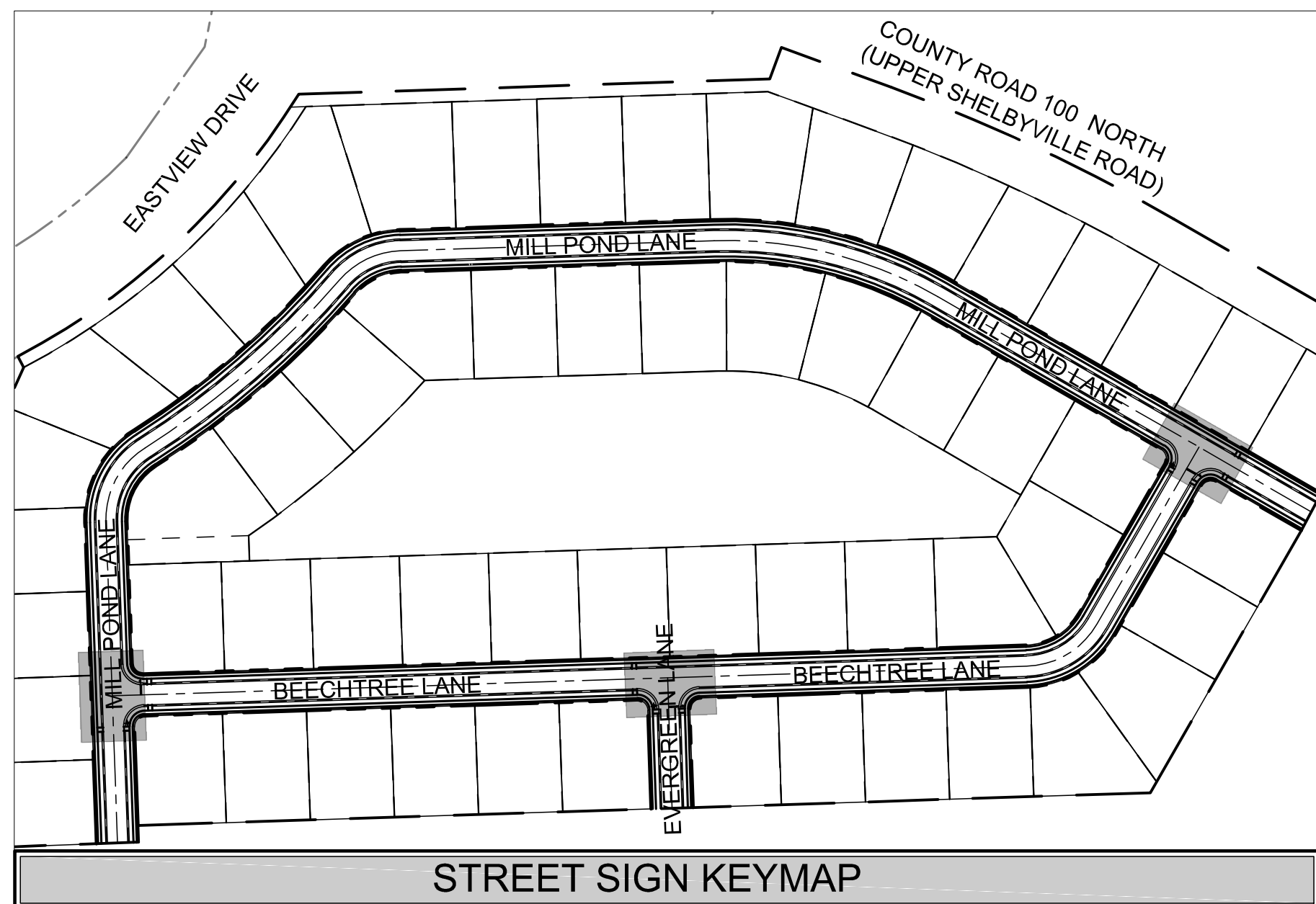
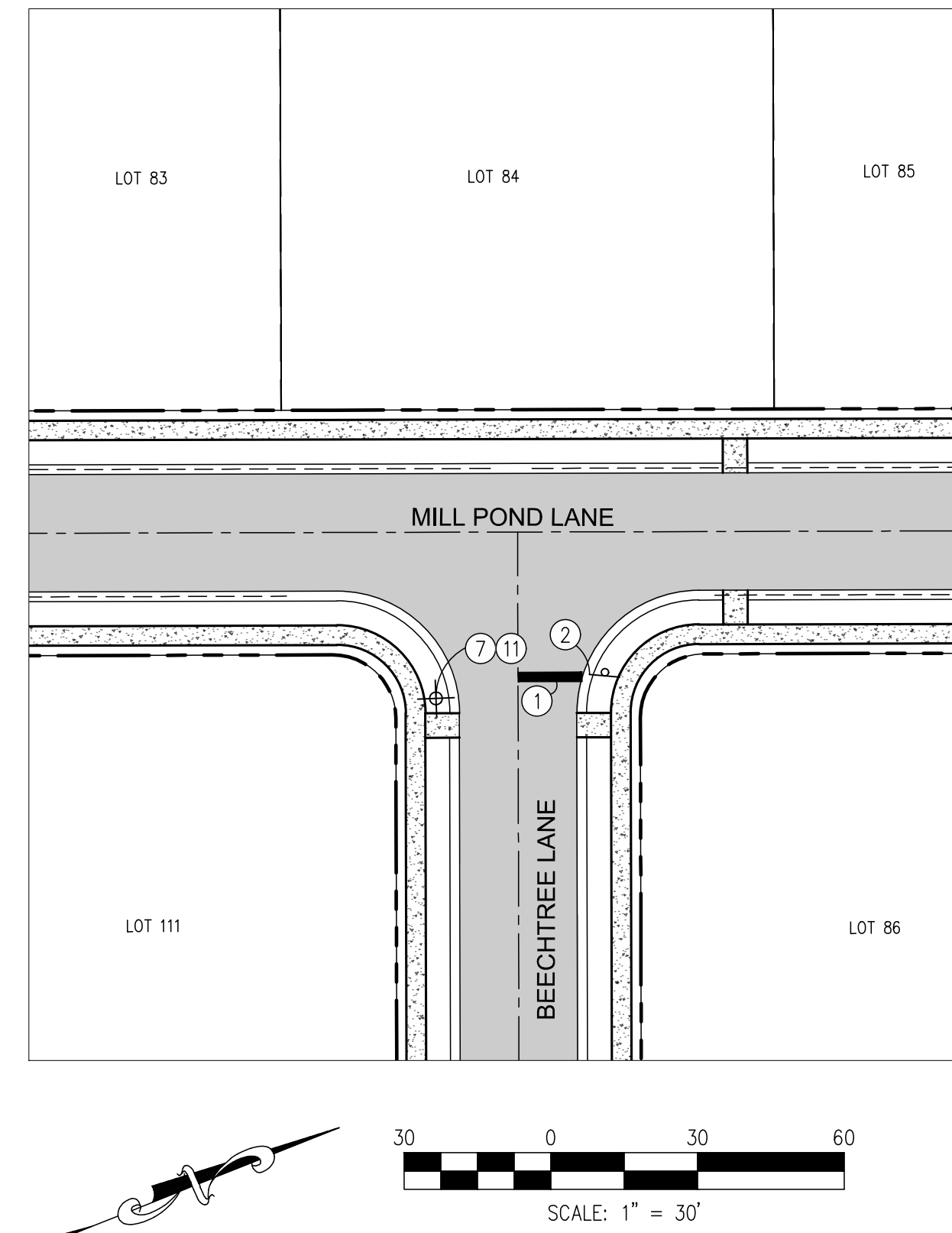
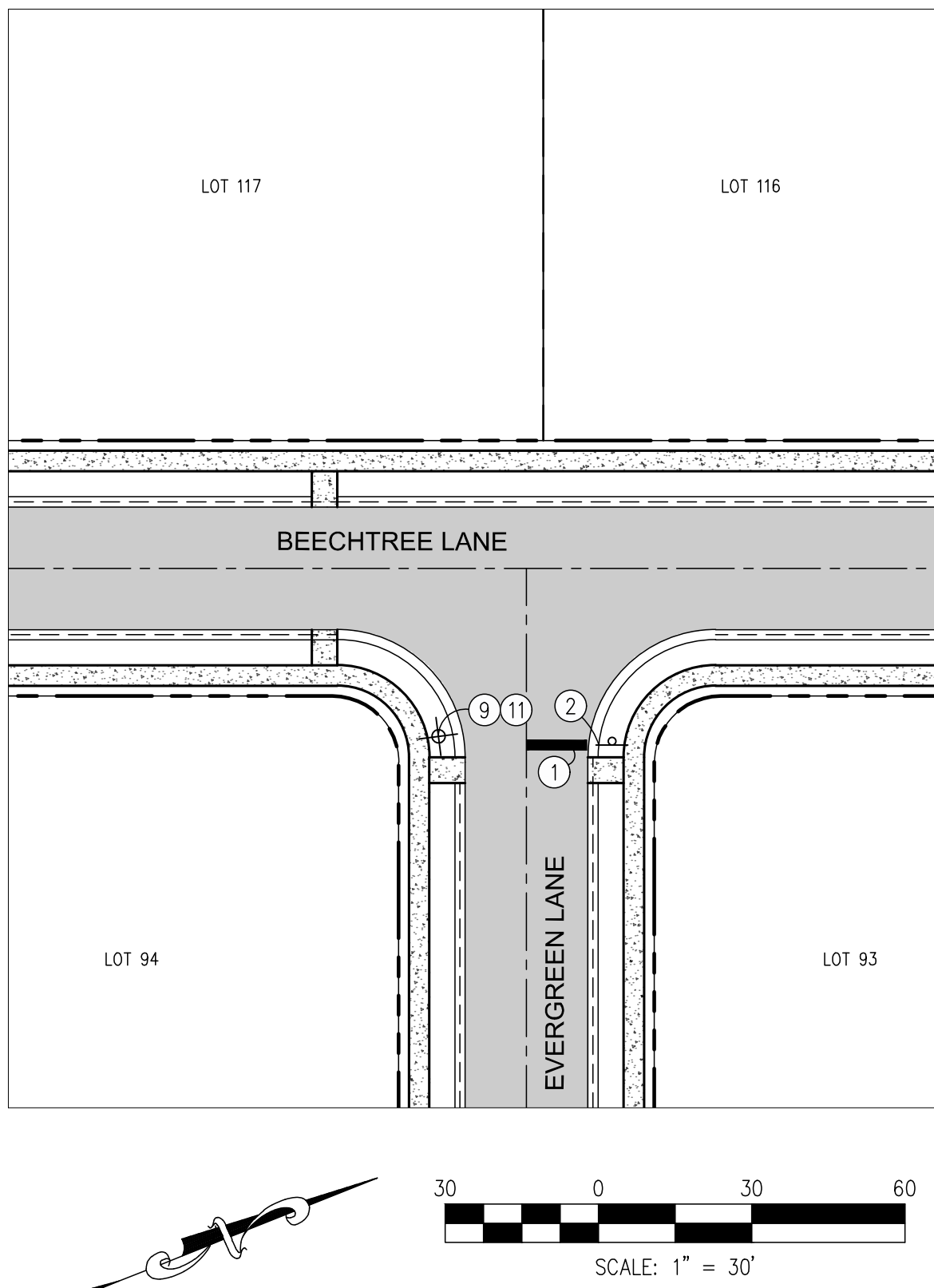
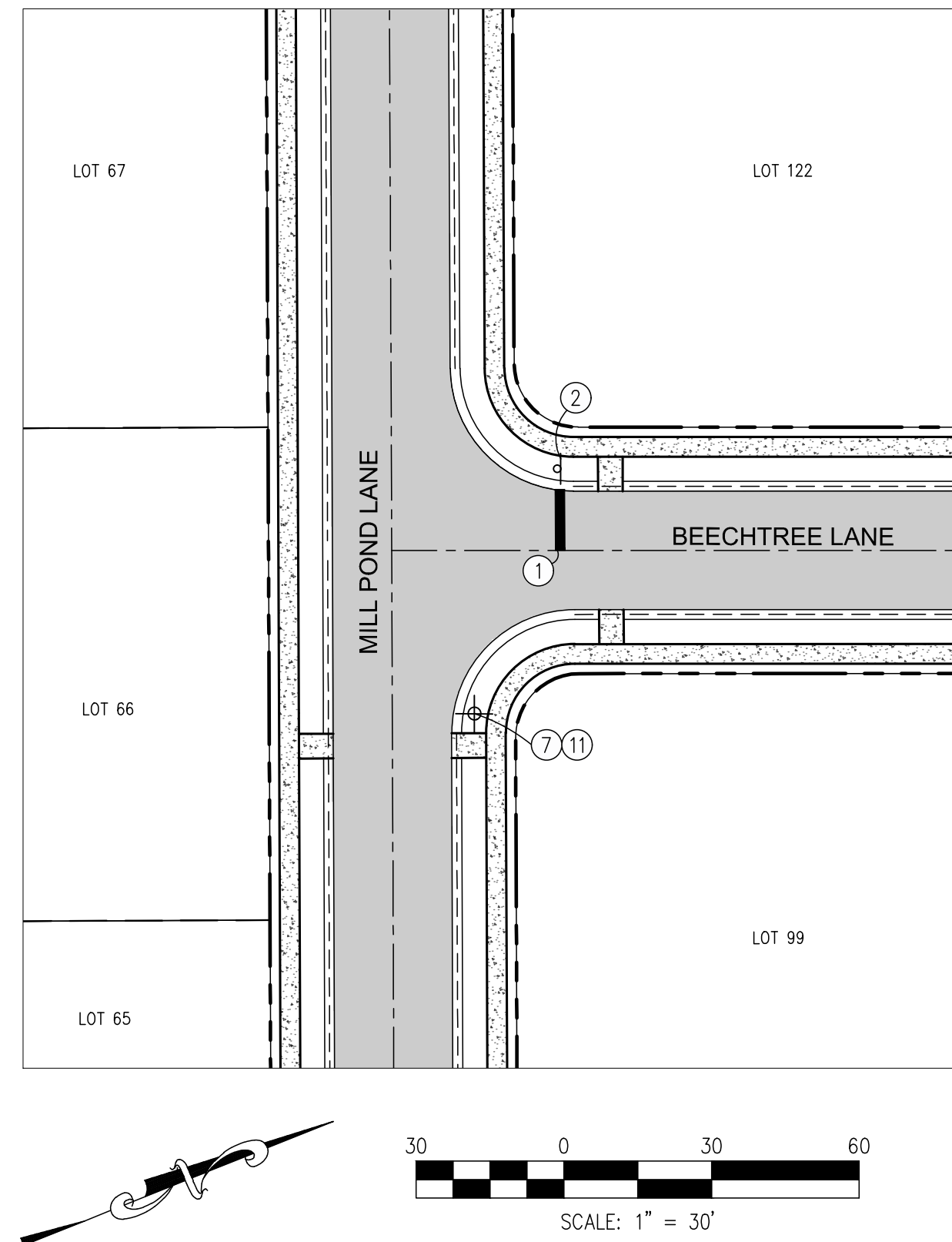
SITE DIMENSION LEGEND			
(A)	MULCH SEEDING/LANDSCAPE AREAS	(K)	TYPICAL ASPHALT SECTION 1½" HMA SURFACE 9.5mm, ON 3½" HMA INTERMEDIATE 19.0mm, ON 8" COMPACTED AGGREGATE #53, ON COMPACTED SUBGRADE (SEE DETAIL-SHEET 1000)
(B)	ASPHALT BUTT JOINT (SEE DETAIL-SHEET 1000)	①	STOP BAR, THERMOPLASTIC, SOLID WHITE, 24"
(C1)	CONCRETE ROLL CURB (SEE DETAIL-SHEET 1000)	②	SIGNAGE STOP SIGN (SEE SHEET 302)
(C2)	MODIFIED ROLL CURB (SEE DETAIL-SHEET 1000)	⊗	DECORATIVE LIGHT POLES & FOUNDATIONS (PER OWNER/PUD)
(D)	4" CONCRETE SIDEWALK (SEE DETAIL-SHEET 1000)	+	STREET NAME SIGNAGE (SEE SHEET 302)
(E)	HANDICAP RAMP, TYPE "C" (SEE DETAIL-SHEET 1000)		
(J)	SAWCUT		



JOB No.	DRAWN	KLF/LMC	CHECKED	TEN
DATE JULY 12 2018		DESIGNED D.M		APPR C.M

9			
8			
7			
6			
5			
4			
3			
2			
1			

SHEET
301

[illegible]

SECTION DETAIL

100

9

Technical drawing of a Panel Style Midview Section (S9) showing dimensions and material specifications. The drawing includes a cross-section of a panel with a central circular feature. Dimensions are provided in inches (IN) and millimeters (MM). The panel is labeled 'Evergreen Ln' and 'MILVIEW-2009 CARTON'. The drawing also includes a table of material specifications and a table of letter positions.

ITEM NUMBER	NAME
WIDTH x HEIGHT	3'-0" x 1'-0"
BRISLE HEIGHT	1.0"
CORNER RADIUS	0"
MOATING	0.001"
BACKING/NOSE	1/8" Reflective
LEADING/NOSE	COLOR: White
	COLOR: Black/Reflective
	COLOR: Black/White

Panel Style: Midview Section (S9)
MILVIEW-2009 CARTON

Letter positions are good edge to lower left corner

LETTER POSITIONS (X)											LENGTH/SPACING/SIZE	
E	F	G	H	I	J	K	L	M	N	O	C	2000
15.9	18.5	23.5	27.5	29.8	33.9	36.4	40.1	43.8	50	52.8		36.1 6/4-5.4/5.4

[illegible]

STREET SYSTEM PLAN

HOMESTEADS AT HILLVIEW - SECTION 3

JOB No.	DRAWN	K/LF / L/K	CHECKED	TEN	Transportation & Development Consultants <small>2001 S. BROAD ST. SUITE 200A • AUSTIN, TEXAS 78705</small>
DATE	JULY 12, 2018	DESIGNED	DJM	GJJ	
					302 SHEET

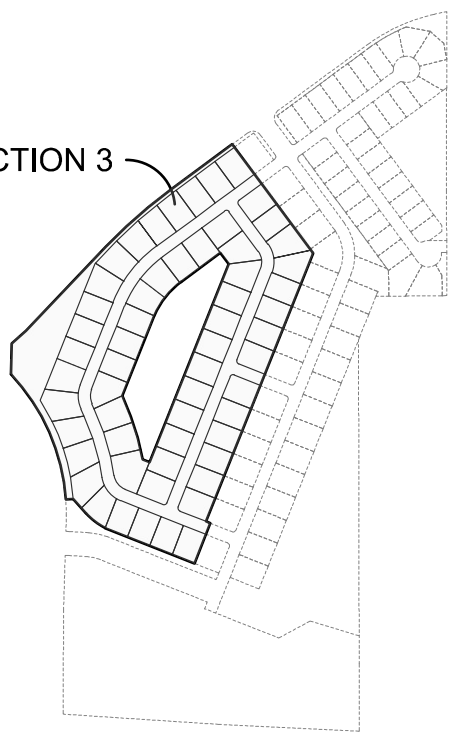


9						
8						
7						
6						
5						
4						
3						
2						
1						
NO.	DATE	REVISIONS		BY	APPR.	

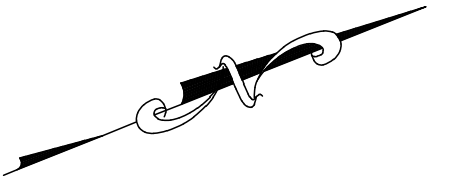
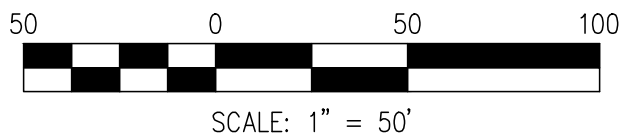
DIRECTORY PATH : R:\Active\John Gerner\Hillview CC Property\CAD\Phase 3 - Plans
DATEUSER : 7/12/2018 8:47 AM J\COX



SECTION 3



Indiana811
Know what's Below. Call before you dig.
"IT'S THE LAW"
CALL 2 WORKING DAYS BEFORE YOU DIG
CALL TOLL FREE
1-800-382-5544 or 811
PER INDIANA STATE LAW IS-69-1991. IT IS AGAINST THE LAW
TO EXCAVATE WITHOUT NOTIFYING THE UNDERGROUND LOCATION
SERVICE TWO (2) WORKING DAYS BEFORE COMMENCING WORK.



REFER TO SHEET 301 FOR
ALL CURVE DATA TABLES

THESE PLANS ARE BASED UPON INFORMATION
FROM AN ALTA/ACSM LAND TITLE SURVEY
PERFORMED BY CKW LAND SURVEYING, INC. WITH
WORK ORDER NO. 130100 AND DATED JUNE 7,
2013 AND SURVEY INFORMATION PROVIDED BY
JERRY WIGGINS SURVEYING.

UTILITIES NOTES

1. WATER MAIN INSTALLATION SHALL BE IN ACCORDANCE WITH THE INDIANA AMERICAN WATER UTILITY STANDARDS AND SPECIFICATIONS. CONTRACTOR SHALL COORDINATE WITH INDIANA AMERICAN WATER FOR CONNECTION AND TESTING PROCEDURES AND REQUIREMENTS. ALL WATER MAIN SHALL BE INSTALLED WITH A MINIMUM 54 INCHES OF COVER FROM FINISH GRADE. MAIN SHALL BE DEFLECTED AS REQUIRED TO MAINTAIN MINIMUM SEPARATION REQUIREMENTS AT ALL UTILITY CROSSINGS.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING TRAFFIC AND PROVIDING ALL NECESSARY FLAGMAN, BARRELS, SIGNAGE, ETC. DURING CONSTRUCTION. ALL APPLICABLE M.U.T.C.D. STANDARDS SHALL GOVERN THIS WORK.
3. CONTRACTOR SHALL COORDINATE WITH APPLICABLE UTILITY COMPANIES AND BUILDING PLANS FOR WATER, CABLE, ELECTRIC, AND TELEPHONE CONNECTION SERVICE POINTS. ALL LIGHTING FIXTURES AND POLES SHALL BE PER OWNER, PUD DOCUMENTS, AND DUKE ENERGY.
4. CONTRACTOR SHALL COORDINATE WITH DUKE ENERGY FOR NECESSARY ELECTRIC SERVICE REQUIREMENTS AND SPECIFICATIONS, AND BUILDING PLANS FOR ALL SERVICE POINTS AT EACH BUILDING.
5. ALL FIELD TILES DISTURBED DURING CONSTRUCTION MUST BE REPAIRED/CONNECTED TO NEW DRAINAGE FACILITIES.
6. DURING CONSTRUCTION, CONTRACTOR SHALL INSTALL TWO (2) GREEN METAL SIGN POSTS AT EACH SANITARY MANHOLE, AND ONE (1) GREEN METAL SIGN POST AT EACH LATERAL STUB. CONTRACTOR SHALL PROTECT POSTS DURING CONSTRUCTION ACTIVITIES.
7. ALL UNDERDRAIN PIPE SHALL BE 6" PERFORATED HOPE.
8. CONTRACTOR SHALL COORDINATE WITH DUKE ENERGY FOR ALL PRIMARY SERVICE LINES, SECONDARY SERVICE LINES, AND TRANSFORMER LOCATIONS. ALSO, COORDINATE WITH DUKE ENERGY FOR ALL CONDUIT REQUIREMENTS.
9. COORDINATE INSTALLATION OF FIRE HYDRANTS WITH INDIANA AMERICAN WATER AND THE CITY OF FRANKLIN FIRE DEPARTMENT. TYPE, MATERIAL, AND MANUFACTURER OF FIRE HYDRANTS SHALL BE IN ACCORDANCE WITH FRANKLIN FIRE DEPARTMENT REQUIREMENTS. ALL HYDRANTS ARE TO BE YELLOW WITH THE TOP CAP COLOR CODED TO SHOW WATER FLOW, AS FOLLOWS: 1500 gpm=BLUE, 1000-1499 gpm=GREEN, AND 500-999 gpm=ORANGE. ALL HYDRANTS SHALL HAVE A STORC CONNECTION.
10. ALL HYDRANTS WITHIN 300 FEET SHALL BE OPERATIONAL BEFORE ANY ABOVE GRADE CONSTRUCTION.
11. SANITARY SEWER INSTALLATION SHALL BE IN ACCORDANCE WITH THE CITY OF FRANKLIN WASTEWATER STANDARDS AND SPECIFICATIONS. CONTRACTOR SHALL COORDINATE WITH THE FRANKLIN WASTEWATER UTILITY FOR ALL INSTALLATION AND TESTING PROCEDURES AND REQUIREMENTS.
12. EXISTING UTILITY SIZE AND MATERIAL INFORMATION SHOWN ON THESE PLANS ARE PER THE BEST GRAPHICAL AND VISIBLE INFORMATION AVAILABLE. CONFLICTS MAY EXIST AND IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY ALL SIZING AND MATERIAL INFORMATION PROVIDED. IF ACTUAL CONDITIONS DIFFER FROM THAT INFORMATION SHOWN ON THE PLANS, THE CONTRACTOR SHALL, PRIOR TO THE INSTALLATION OF ANY PROPOSED INFRASTRUCTURE, NOTIFY THE DESIGN ENGINEER IMMEDIATELY.

PROPOSED LEGEND

	PROPERTY LINE		WATER TEE
	SECTION LINE		STORM INLETS
	PHASE LINE		45° BEND
	SETBACK LINE		11.25° BEND
	DITCH LINE		22.5° BEND
	SANITARY SEWER WITH MANHOLE		WATER VALVE
	SANITARY SEWER LATERAL		FIRE HYDRANT
	STORM SEWER W/MANHOLE & END SECTION		SANITARY LATERAL (SEE TABLE, SHEET 402)
	WATER LINE		UNDERDRAIN LABEL (SEE TABLE, SHEET 402)
	WATER SERVICE LINE		
	DECORATIVE LIGHT POLE AND FOUNDATION (PER OWNER/PUD)		
	SIGN		
	TAPPING SLEEVE		

CRUSSROAD CONSULTANTS, INC.
Development Consultants
201 PARKER BLVD. SUITE 100
EVANSVILLE, IN 47710-3550

UTILITY PLAN

HOMESTEADS AT HILLVIEW - SECTION 3

JOB NO.	DRAWN	KLF/LWC	CHECKED	TEN
DATE	JULY 12, 2018	DESIGNED	DJM	CJJ

SHEET	400
-------	-----

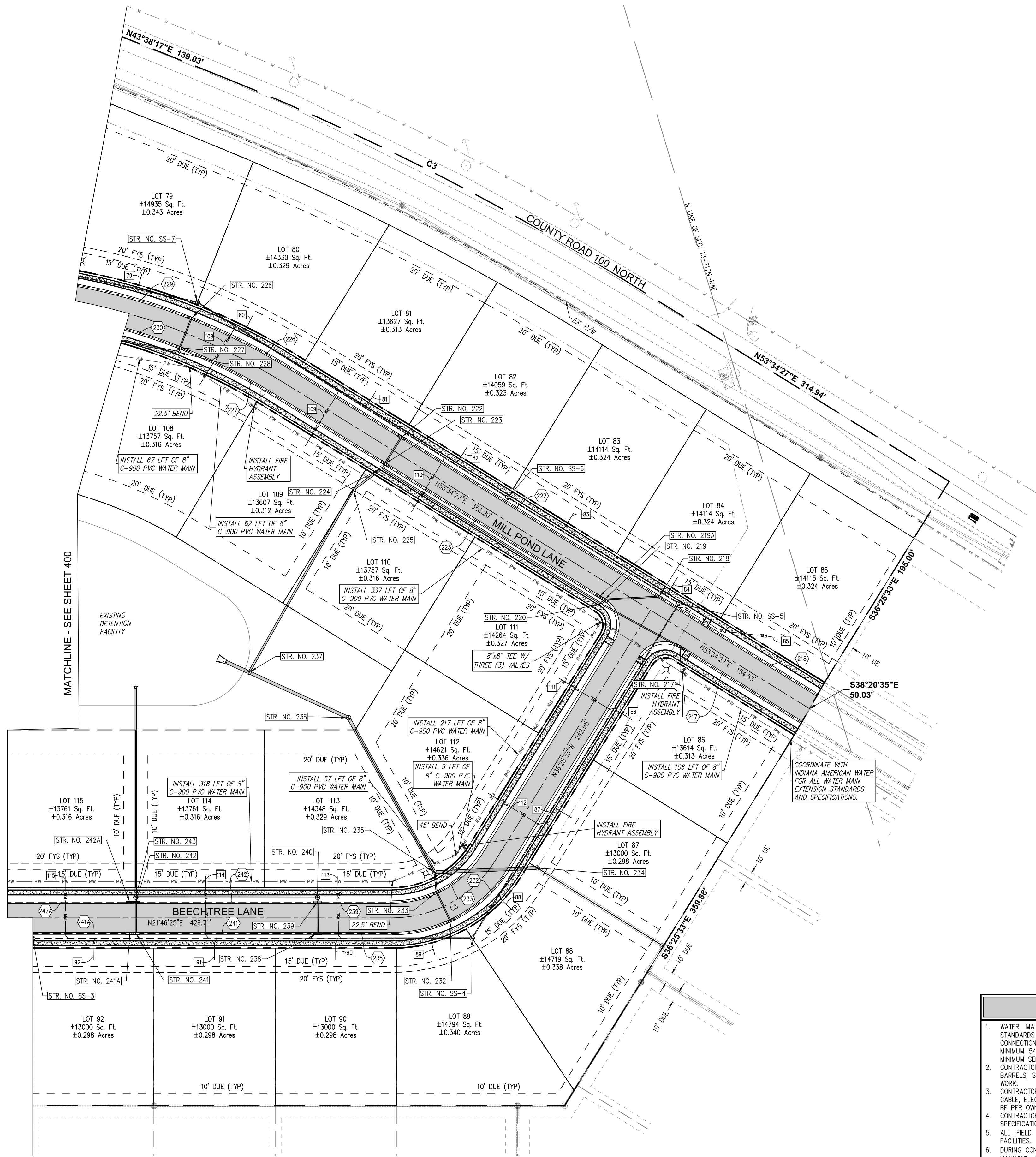
Gregory J. Ilikowski
Professional Engineer
State of Indiana
No. 10300059

REVISIONS	
NO.	DATE
1	
2	
3	
4	
5	
6	
7	
8	
9	

SHEET

400

DIRECTORY PATH : R:\Active\John Gerner\Hillview CC Property\CAD\Phase 3 - Plans
DATE/USER : 7/12/2018 8:47 AM / LCX



MATCHLINE - SEE SHEET 400

UTILITIES NOTES

1. WATER MAIN INSTALLATION SHALL BE IN ACCORDANCE WITH THE INDIANA AMERICAN WATER UTILITY STANDARDS AND SPECIFICATIONS. CONTRACTOR SHALL COORDINATE WITH INDIANA AMERICAN WATER FOR CONNECTION AND TESTING PROCEDURES AND REQUIREMENTS. ALL WATER MAIN SHALL BE INSTALLED WITH A MINIMUM 54 INCHES OF COVER FROM FINISH GRADE. MAIN SHALL BE DEFLECTED AS REQUIRED TO MAINTAIN MINIMUM SEPARATION REQUIREMENTS AT ALL UTILITY CROSSINGS.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING TRAFFIC AND PROVIDING ALL NECESSARY FLAGMAN, BARRELS, SIGNAGE, ETC. DURING CONSTRUCTION. ALL APPLICABLE M.U.T.C.D. STANDARDS SHALL GOVERN THIS WORK.
3. CONTRACTOR SHALL COORDINATE WITH APPLICABLE UTILITY COMPANIES AND BUILDING PLANS FOR WATER, CABLE, ELECTRIC, AND TELEPHONE CONNECTION SERVICE. POINTS. ALL LIGHTING FIXTURES AND POLES SHALL BE PER OWNER, PUD DOCUMENTS, AND DUKE ENERGY.
4. CONTRACTOR TO COORDINATE WITH DUKE ENERGY FOR NECESSARY ELECTRIC SERVICE REQUIREMENTS AND SPECIFICATIONS, AND BUILDING PLANS FOR ALL SERVICE POINTS AT EACH BUILDING.
5. ALL FIELD TILES DISTURBED DURING CONSTRUCTION MUST BE REPAIRED/CONNECTED TO NEW DRAINAGE FACILITIES.
6. DURING CONSTRUCTION, CONTRACTOR SHALL INSTALL TWO (2) GREEN METAL SIGN POSTS AT EACH SANITARY MANHOLE, AND ONE (1) GREEN METAL SIGN POST AT EACH LATERAL STUB. CONTRACTOR SHALL PROTECT POSTS DURING CONSTRUCTION ACTIVITIES.
7. ALL UNDERDRAIN PIPE SHALL BE 6" PERFORATED HDPE.
8. CONTRACTOR SHALL COORDINATE WITH DUKE ENERGY FOR ALL PRIMARY SERVICE LINES, SECONDARY SERVICE LINES, AND TRANSFORMER LOCATIONS. ALSO, COORDINATE WITH DUKE ENERGY FOR ALL CONDUIT REQUIREMENTS.
9. COORDINATE INSTALLATION OF FIRE HYDRANTS WITH INDIANA AMERICAN WATER AND THE CITY OF FRANKLIN FIRE DEPARTMENT. TYPE, MATERIAL, AND MANUFACTURER OF FIRE HYDRANTS SHALL BE IN ACCORDANCE WITH FRANKLIN FIRE DEPARTMENT REQUIREMENTS. ALL HYDRANTS ARE TO BE YELLOW WITH THE TOP CAP COLOR CODED TO SHOW WATER FLOW, AS FOLLOWS: 1500 gpm=BLUE, 1000-1499 gpm=GREEN, AND 500-999 gpm=ORANGE. ALL HYDRANTS SHALL HAVE A STORZ CONNECTION.
10. ALL HYDRANTS WITHIN 300 FEET SHALL BE OPERATIONAL BEFORE ANY ABOVE GRADE CONSTRUCTION.
11. SANITARY SEWER INSTALLATION SHALL BE IN ACCORDANCE WITH THE CITY OF FRANKLIN WASTEWATER STANDARDS AND SPECIFICATIONS. CONTRACTOR SHALL COORDINATE WITH THE FRANKLIN WASTEWATER UTILITY FOR ALL INSTALLATION AND TESTING PROCEDURES AND REQUIREMENTS.
12. EXISTING UTILITY SIZE AND MATERIAL INFORMATION SHOWN ON THESE PLANS ARE PER THE BEST GRAPHICAL AND VISIBLE INFORMATION AVAILABLE. CONFLICTS MAY EXIST AND IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY ALL SIZING AND MATERIAL INFORMATION PROVIDED. IF ACTUAL CONDITIONS DIFFER FROM THAT INFORMATION SHOWN ON THE PLANS, THE CONTRACTOR SHALL, PRIOR TO THE INSTALLATION OF ANY PROPOSED INFRASTRUCTURE, NOTIFY THE DESIGN ENGINEER IMMEDIATELY.

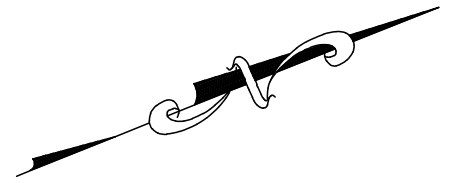
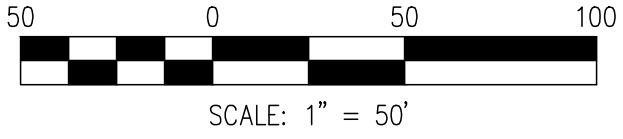
PROPOSED LEGEND

- PROPERTY LINE
- SECTION LINE
- PHASE LINE
- SETBACK LINE
- DITCH LINE
- SANITARY SEWER WITH MANHOLE
- SANITARY SEWER LATERAL
- STORM SEWER W/MANHOLE & END SECTION
- WATER LINE
- WATER SERVICE LINE
- WATER TEE
- STORM INLETS
- 45° BEND
- 11.25° BEND
- 22.5° BEND
- DECORATIVE LIGHT POLE AND FOUNDATION (PER OWNER/PUD)
- SIGN
- TAPPING SLEEVE
- WATER VALVE
- FIRE HYDRANT
- SANITARY LATERAL (SEE TABLE, SHEET 402)
- UNDERDRAIN LABEL (SEE TABLE, SHEET 402)



SECTION 3

KEYMAP
NOT TO SCALE



UTILITY PLAN

HOMESTEADS AT HILLVIEW - SECTION 3

JOB NO.	DRAWN	KLF/LWC	CHECKED	TEN
DATE	JULY 12, 2018	DESIGNED	DJM	CJJ
APPR.				



APPR.

BY

REVISIONS

DATE

SHEET

401

SHEET

401

UNDERDRAIN DATA TABLE													
RUN	LENGTH	SIZE	SLOPE	U.S. EL.	D.S. EL.	RUN	LENGTH	SIZE	SLOPE	U.S. EL.	D.S. EL.	RUN	LENGTH
200	173	6"	0.65%	737.44	736.31	217	115	6"	0.61%	738.39	737.69	240	142
201	138	6"	0.66%	737.22	736.31	218	151	6"	0.60%	738.39	737.48	241	170
202	220	6"	0.77%	737.44	735.75	222	241	6"	0.59%	737.40	735.98	242	141
203	180	6"	0.90%	737.37	735.75	223	200	6"	0.59%	737.15	735.98	243	205
204	164	6"	0.70%	735.71	734.56	226	191	6"	0.58%	735.85	734.75	244	90
205	112	6"	0.57%	735.20	734.56	227	186	6"	0.59%	735.85	734.75	245	125
206	143	6"	0.80%	735.71	734.56	229	170	6"	0.53%	734.70	733.80	247	165
207	155	6"	0.85%	736.81	735.50	230	161	6"	0.56%	734.70	733.80	250	107
208	134	6"	0.97%	736.80	735.50	231	137	6"	0.93%	735.07	733.80	251	195
210	96	6"	0.64%	735.85	735.24	232	54	6"	0.46%	739.35	739.10	252	107
211	98	6"	0.62%	735.85	735.24	233	21	6"	0.71%	739.25	739.10	253	195
214	145	6"	1.00%	736.60	735.15	238	103	6"	0.62%	739.09	738.45	260	118
215	145	6"	1.00%	736.60	735.15	239	91	6"	0.70%	739.09	738.45	261	113

SANITARY LATERAL DATA TABLE													
INSTALL XX LFT OF 6" SDR 35 PVC SANITARY SEWER LATERAL @ 1.04% MIN. SLOPE													
RUN	LENGTH	RUN	LENGTH	RUN	LENGTH	RUN	LENGTH	RUN	LENGTH	RUN	LENGTH	RUN	LENGTH
65	53	74	9	83	18	92	18	101	68	110	53	119	52
66	12	75	9	84	18	93	18	102	66	111	53	120	52
67	12	76	9	85	87	94	18	103	69	112	53	121	91
68	15	77	9	86	18	95	18	104	69	113	52	122	60
69	12	78	11	87	18	96	18	105	69	114	52		
70	12	79	14	88	16	97	18	106	69	115	52		
71	12	80	15	89	14	98	59	107	57	116	52		
72	12	81	17	90	18	99	64	108	59	117	52		
73	12	82	18	91	18	100	61	109	54	118	52		



STORM SEWER STRUCTURE TABLE
STR. DATA
EX. STR. NO. 103 CONTRACTOR TO REMOVE EXISTING CASTING AND INSTALL A 4" RISER AND REPLACE EXISTING CASTING. CONTRACTOR TO CORE DRILL PROPOSED CONNECTIONS TO EXISTING MANHOLE. RIM=737.78 INV In (15"~E)=733.48 INV In (15"~N)=734.00 INV In (18"~S)=732.47 INV Out (24"~NW)=732.43 STR. NO. 202 INSTALL TYPE 'M' INLET WITH NEENAH R-3501-TR CASTING OR APPROVED EQUAL AND 26 LFT OF 12" RCP @ 0.42% RIM=738.03 INV In (12"~S)=734.71 INV Out (12"~NE)=734.61 STR. NO. 203 INSTALL TYPE 'M' INLET WITH NEENAH R-3501-TL CASTING OR APPROVED EQUAL AND 151 LFT OF 15" RCP @ 0.42% RIM=738.03 INV In (12"~SW)=734.50 INV Out (15"~N)=734.50 STR. NO. 205 INSTALL TYPE 'M' INLET WITH NEENAH R-3501-TB CASTING OR APPROVED EQUAL AND 26 LFT OF 12" RCP @ 0.40% RIM=736.81 INV In (12"~S)=734.00 INV Out (12"~E)=733.98 STR. NO. 205A INSTALL TYPE 'J' INLET WITH NEENAH R-3501-TB CASTING OR APPROVED EQUAL AND 5 LFT OF 12" RCP @ 0.40% RIM=736.81 INV Out (12"~N)=734.02 STR. NO. 206 INSTALL TYPE 'M' INLET WITH NEENAH R-3501-TB CASTING OR APPROVED EQUAL AND 4 LFT OF 15" RCP @ 0.50% RIM=736.81 INV In (12"~W)=733.88 INV In (12"~S)=733.90 INV Out (15"~E)=733.88 STR. NO. 206A INSTALL TYPE 'J' INLET WITH NEENAH R-3501-TB CASTING OR APPROVED EQUAL AND 5 LFT OF 12" RCP @ 0.40% RIM=736.81 INV Out (12"~N)=733.92 STR. NO. 207 INSTALL TYPE 'J' INLET WITH NEENAH R-3501-TL CASTING OR APPROVED EQUAL AND 26 LFT OF 12" RCP @ 0.40% RIM=738.18 INV Out (12"~NE)=734.72

STORM SEWER STRUCTURE TABLE
STR. DATA
STR. NO. 208 INSTALL TYPE 'C' MANHOLE WITH NEENAH R-3501-TR CASTING OR APPROVED EQUAL AND 4 LFT OF 12" RCP @ 0.50% RIM=738.18 INV In (12"~SW)=734.62 INV Out (12"~NE)=734.62 STR. NO. 209 INSTALL TYPE 'C' MANHOLE WITH NEENAH R-1714 CASTING OR APPROVED EQUAL AND 107 LFT OF 12" RCP @ 0.40% RIM=738.55 INV In (12"~SW)=734.60 INV Out (12"~SE)=734.60 STR. NO. 210 INSTALL TYPE 'J' INLET WITH NEENAH R-3501-TL CASTING OR APPROVED EQUAL AND 26 LFT OF 12" RCP @ 0.40% RIM=737.49 INV Out (12"~E)=734.35 STR. NO. 211 INSTALL TYPE 'M' INLET WITH NEENAH R-3501-TR CASTING OR APPROVED EQUAL AND 4 LFT OF 12" RCP @ 0.50% RIM=737.49 INV In (12"~W)=734.25 INV Out (12"~SE)=734.25 STR. NO. 212 INSTALL TYPE 'C' MANHOLE WITH NEENAH R-1714 CASTING OR APPROVED EQUAL AND 124 LFT OF 15" RCP @ 0.30% RIM=737.85 INV In (12"~NW)=734.17 INV Out (15"~S)=734.17 STR. NO. 213 INSTALL TYPE 'C' MANHOLE WITH NEENAH R-1714 CASTING OR APPROVED EQUAL AND ONE (1) CONCRETE END SECTION 187 LFT OF 18" RCP @ 0.40% RIM=737.15 INV In (15"~W)=733.86 INV In (15"~N)=733.80 INV Out (18"~E)=733.80 STR. NO. 214 INSTALL TYPE 'J' INLET WITH NEENAH R-3501-TB CASTING OR APPROVED EQUAL AND 26 LFT OF 12" RCP @ 0.40% RIM=737.45 INV Out (12"~E)=733.63 STR. NO. 215 INSTALL TYPE 'M' INLET WITH NEENAH R-3501-TL CASTING OR APPROVED EQUAL AND 4 LFT OF 12" RCP @ 0.50% RIM=737.45 INV In (12"~W)=733.53 INV Out (12"~SE)=733.53

STORM SEWER STRUCTURE TABLE
STR. DATA
STR. NO. 216 INSTALL TYPE 'C' MANHOLE WITH NEENAH R-1714 CASTING OR APPROVED EQUAL AND 150 LFT OF 12" RCP @ 0.40% RIM=737.80 INV In (12"~NW)=733.51 INV Out (12"~N)=733.51 STR. NO. 217 INSTALL TYPE 'J' INLET WITH NEENAH R-3501-TR CASTING OR APPROVED EQUAL AND 74 LFT OF 12" RCP @ 0.40% RIM=738.55 INV In (12"~SW)=735.65 INV Out (12"~SE)=735.65 STR. NO. 218 INSTALL TYPE 'J' INLET WITH NEENAH R-3501-TL CASTING OR APPROVED EQUAL AND 45 LFT OF 12" RCP @ 0.40% RIM=739.73 INV Out (12"~S)=735.55 STR. NO. 219 INSTALL TYPE 'M' INLET WITH NEENAH R-3501-TR CASTING OR APPROVED EQUAL AND 4 LFT OF 15" RCP @ 0.50% RIM=739.50 INV In (12"~SW)=735.37 INV In (12"~W)=735.37 INV Out (15"~SE)=735.37 STR. NO. 219A INSTALL TYPE 'J' INLET WITH NEENAH R-1714 CASTING OR APPROVED EQUAL AND 5 LFT OF 12" RCP @ 0.40% RIM=739.50 INV Out (12"~NE)=735.39 STR. NO. 220 INSTALL TYPE 'C' MANHOLE WITH NEENAH R-1714 CASTING OR APPROVED EQUAL AND 213 LFT OF 15" RCP @ 0.40% RIM=739.85 INV In (15"~NW)=735.35 INV In (12"~NE)=735.35 INV Out (15"~SW)=735.35 STR. NO. 222 INSTALL TYPE 'M' INLET WITH NEENAH R-3501-TL CASTING OR APPROVED EQUAL AND 26 LFT OF 12" RCP @ 0.30% RIM=738.23 INV Out (12"~NE)=732.78 STR. NO. 223 INSTALL TYPE 'M' INLET WITH NEENAH R-3501-TR CASTING OR APPROVED EQUAL AND 4 LFT OF 15" RCP @ 0.30% RIM=738.23 INV In (12"~NW)=732.70 INV Out (15"~SE)=732.70 STR. NO. 223 INSTALL TYPE 'M' INLET WITH NEENAH R-3501-TB CASTING OR APPROVED EQUAL AND 5 LFT OF 12" RCP @ 0.40% RIM=738.07 INV In (12"~SW)=733.03 INV Out (12"~SE)=733.03

STORM SEWER STRUCTURE TABLE
STR. DATA
STR. NO. 224 INSTALL TYPE 'C' MANHOLE WITH NEENAH R-1714 CASTING OR APPROVED EQUAL AND 30 LFT OF 18" RCP @ 0.30% RIM=737.55 INV In (15"~NE)=732.91 INV In (15"~NW)=732.69 INV Out (18"~S)=732.69 STR. NO. 225 INSTALL TYPE 'C' MANHOLE WITH NEENAH R-1714 CASTING OR APPROVED EQUAL AND ONE (1) CONCRETE END SECTION 182 LFT OF 18" RCP @ 0.50% RIM=738.94 INV In (12"~E)=736.32 RIM=738.00 INV In (18"~N)=732.60 INV Out (18"~SE)=732.60 STR. NO. 226 INSTALL TYPE 'J' INLET WITH NEENAH R-3501-TL CASTING OR APPROVED EQUAL AND 26 LFT OF 12" RCP @ 0.40% RIM=737.03 INV Out (12"~S)=733.70 STR. NO. 227 INSTALL TYPE 'M' INLET WITH NEENAH R-3501-TR CASTING OR APPROVED EQUAL AND 4 LFT OF 12" RCP @ 0.50% RIM=737.03 INV In (12"~NW)=733.60 INV Out (12"~SE)=733.60 STR. NO. 228 INSTALL TYPE 'C' MANHOLE WITH NEENAH R-1714 CASTING OR APPROVED EQUAL AND 167 LFT OF 15" RCP @ 0.40% RIM=737.35 INV In (15"~NW)=733.58 INV Out (15"~SW)=733.58 STR. NO. 229 INSTALL TYPE 'M' INLET WITH NEENAH R-3501-TB CASTING OR APPROVED EQUAL AND 26 LFT OF 12" RCP @ 0.40% RIM=736.07 INV In (12"~SW)=733.03 INV Out (12"~SE)=733.03 STR. NO. 229A INSTALL TYPE 'J' INLET WITH NEENAH R-3501-TB CASTING OR APPROVED EQUAL AND 5 LFT OF 12" RCP @ 0.40% RIM=736.07 INV In (12"~SW)=733.05 INV Out (12"~NE)=733.05 STR. NO. 230 INSTALL TYPE 'M' INLET WITH NEENAH R-3501-TR CASTING OR APPROVED EQUAL AND 4 LFT OF 15" RCP @ 0.50% RIM=736.07 INV In (12"~NW)=732.93 INV In (12"~SW)=732.93 INV Out (15"~SE)=732.93

STORM SEWER STRUCTURE TABLE
STR. DATA
STR. NO. 230A INSTALL TYPE 'C' MANHOLE WITH NEENAH R-3501-TB CASTING OR APPROVED EQUAL AND 5 LFT OF 12" RCP @ 0.40% RIM=737.07 INV Out (12"~NE)=732.95 STR. NO. 231 INSTALL TYPE 'C' MANHOLE WITH NEENAH R-1714 CASTING OR APPROVED EQUAL AND ONE (1) CONCRETE END SECTION 182 LFT OF 18" RCP @ 0.50% RIM=736.45 INV In (12"~E)=736.32 RIM=736.45 INV In (15"~NW)=732.91 INV In (15"~NW)=732.91 INV Out (18"~SE)=732.91 STR. NO. 232 INSTALL TYPE 'J' INLET WITH NEENAH R-3501-TR CASTING OR APPROVED EQUAL AND 26 LFT OF 12" RCP @ 0.40% RIM=741.10 INV In (12"~SE)=736.30 INV Out (12"~S)=735.30 STR. NO. 233 INSTALL TYPE 'M' INLET WITH NEENAH R-3501-TL CASTING OR APPROVED EQUAL AND 17 LFT OF 12" RCP @ 0.40% RIM=741.39 INV In (12"~E)=738.05 INV Out (12"~W)=738.15 STR. NO. 234 REMOVE EXISTING END SECTION AND INSTALL TYPE 'J' MANHOLE WITH NEENAH R-1714 CASTING OR APPROVED EQUAL AND 85 LFT OF 30" RCP @ 0.39% RIM=742.50 INV In (30"~NE)=733.46 INV Out (30"~S)=733.46 STR. NO. 235 INSTALL TYPE 'J' MANHOLE WITH NEENAH R-1714 CASTING OR APPROVED EQUAL AND 146 LFT OF 30" RCP @ 0.39% RIM=742.15 INV In (30"~N)=733.13 INV In (12"~E)=737.98 INV Out (30"~W)=733.13 STR. NO. 236 INSTALL TYPE 'J' MANHOLE WITH NEENAH R-1714 CASTING OR APPROVED EQUAL AND 90 LFT OF 30" RCP @ 0.53% RIM=739.00 INV In (30"~E)=732.56 INV Out (30"~SW)=732.56 STR. NO. 237 INSTALL TYPE 'J' MANHOLE WITH NEENAH R-1714 CASTING OR APPROVED EQUAL AND ONE (1) CONCRETE END SECTION 28 LFT OF 30" RCP @ 0.39% RIM=738.25 INV In (30"~NE)=732.08 INV In (18"~NW)=732.08 INV Out (30"~SW)=732.08

STORM SEWER STRUCTURE TABLE
STR. DATA
STR. NO. 238 INSTALL TYPE 'J' INLET WITH NEENAH R-3501-TR CASTING OR APPROVED EQUAL AND 26 LFT OF 12" RCP @ 0.40% RIM=740.72 INV Out (12"~W)=736.25 STR. NO. 239 INSTALL TYPE 'M' INLET WITH NEENAH R-1714 CASTING OR APPROVED EQUAL AND 4 LFT OF 12" RCP @ 0.50% RIM=740.72 INV In (12"~E)=736.32 INV Out (12"~W)=736.32 STR. NO. 240 INSTALL TYPE 'C' MANHOLE WITH NEENAH R-3501-TL CASTING OR APPROVED EQUAL AND 150 LFT OF 12" RCP @ 0.40% RIM=741.10 INV In (12"~SE)=736.30 INV Out (12"~S)=735.30 STR. NO. 241 INSTALL TYPE 'M' INLET WITH NEENAH R-3501-TB CASTING OR APPROVED EQUAL AND 26 LFT OF 12" RCP @ 0.40% RIM=739.87 INV In (12"~S)=734.82 INV Out (12"~W)=734.82 STR. NO. 241A INSTALL TYPE 'J' INLET WITH NEENAH R-3501-TB CASTING OR APPROVED EQUAL AND 5 LFT OF 12" RCP @ 0.40% RIM=739.87 INV Out (12"~N)=734.84 STR. NO. 242 INSTALL TYPE 'M' INLET WITH NEENAH R-3501-TB CASTING OR APPROVED EQUAL AND 4 LFT OF 15" RCP @ 0.50% RIM=739.87 INV In (12"~E)=734.72 INV In (12"~S)=734.72 INV Out (15"~W)=734.72 STR. NO. 242A INSTALL TYPE 'J' INLET WITH NEENAH R-3501-TB CASTING OR APPROVED EQUAL AND 5 LFT OF 12" RCP @ 0.40% RIM=739.87 INV Out (12"~N)=734.74 STR. NO. 243 INSTALL TYPE 'C' MANHOLE WITH NEENAH R-1714 CASTING OR APPROVED EQUAL AND 174 LFT OF 15" RCP @ 0.40% RIM=740.25 INV In (12"~N)=734.70 INV In (15"~W)=734.70 INV Out (15"~W)=734.70

STORM SEWER STRUCTURE TABLE
STR. DATA
STR. NO. 244 INSTALL TYPE 'J' INLET WITH NEENAH R-3501-TR CASTING OR APPROVED EQUAL AND 26 LFT OF 12" RCP @ 0.40% RIM=737.49 INV Out (12"~W)=736.25 STR. NO. 245 INSTALL TYPE 'M' INLET WITH NEENAH R-3501-TL CASTING OR APPROVED EQUAL AND 4 LFT OF 12" RCP @ 0.50% RIM=740.35 INV In (12"~E)=736.15 INV Out (12"~W)=736.15 STR. NO. 246 INSTALL TYPE 'C' MANHOLE WITH NEENAH R-1714 CASTING OR APPROVED EQUAL AND 174 LFT OF 12" RCP @ 0.40% RIM=740.95 INV In (12"~SE)=736.13 INV Out (12"~W)=736.13 STR. NO. 247 INSTALL TYPE 'J' INLET WITH NEENAH R-3501-TB CASTING OR APPROVED EQUAL AND 26 LFT OF 12" RCP @ 0.40% RIM=738.58 INV In (12"~W)=735.00 INV Out (12"~W)=735.00 STR. NO. 248 INSTALL TYPE 'M' INLET WITH NEENAH R-3501-TL CASTING OR APPROVED EQUAL AND 4 LFT OF 12" RCP @ 0.50% RIM=738.58 INV In (12"~E)=734.90 INV In (12"~W)=734.90 STR. NO. 249 INSTALL TYPE 'C' MANHOLE WITH NEENAH R-1714 CASTING OR APPROVED EQUAL AND 116 LFT OF 15" RCP @ 0.40% RIM=738.95 INV In (12"~N)=735.43 INV In (12"~E)=734.88 INV Out (15"~W)=734.46 STR. NO. 250 INSTALL TYPE 'M' INLET WITH NEENAH R-3501-TB CASTING OR APPROVED EQUAL AND 26 LFT OF 12" RCP @ 0.40% RIM=737.49 INV In (12"~S)=733.60 INV Out (12"~W)=733.60 STR. NO. 250A INSTALL TYPE 'J' INLET WITH NEENAH R-3501-TB CASTING OR APPROVED EQUAL AND 5 LFT OF 12" RCP @ 0.40% RIM=737.49 INV Out (12"~W)=733.62

CULVERT DATA TABLE
STR. DATA
STR. NO. 204 INSTALL ONE (1) CONCRETE END SECTION AND 133 LFT OF 12" RCP @ 0.82% U.S. EL.=735.80 D.S. EL.=734.71

SANITARY SEWER STRUCTURE TABLE
STR. DATA
EX. SANI MANHOLE Concentric Structure 48 dia 18 frame 24 cone NEENAH R-1772 CASTING OR APPROVED EQUAL AND 2 LFT OF 15" @ 0.00% RIM=731.76 INV In (8"~E)=721.21 INV In (15"~NE)=721.11 INV Out (15"~SW)=721.11 SS-1 INSTALL SANITARY SEWER MANHOLE WITH NEENAH R-1772 CASTING OR APPROVED EQUAL AND 208 LFT OF 8" PVC @ 0.40% RIM=737.95 INV Out (8"~N)=730.38 SS-2 INSTALL SANITARY SEWER MANHOLE WITH NEENAH R-1772 CASTING OR APPROVED EQUAL AND 360 LFT OF 8" PVC @ 0.40% RIM=729.82 INV In (8"~S)=729.55 INV Out (8"~N)=729.45 SS-3 INSTALL SANITARY SEWER MANHOLE WITH NEENAH R-1772 CASTING OR APPROVED EQUAL AND 363 LFT OF 8" PVC @ 0.40% RIM=740.95 INV In (8"~S)=728.01 INV Out (8"~N)=727.91 SS-4 INSTALL SANITARY SEWER MANHOLE WITH NEENAH R-1772 CASTING OR APPROVED EQUAL AND 324 LFT OF 8" PVC @ 0.40% RIM=742.20 INV In (8"~S)=726.45 INV Out (8"~NW)=726.35 SS-5 INSTALL SANITARY SEWER MANHOLE WITH NEENAH R-1772 CASTING OR APPROVED EQUAL AND 166 LFT OF 8" PVC @ 0.40% RIM=740.95 INV In (8"~SE)=725.05 INV Out (8"~SW)=724.95 SS-6 INSTALL SANITARY SEWER MANHOLE WITH NEENAH R-1772 CASTING OR APPROVED EQUAL AND 302 LFT OF 8" PVC @ 0.40% RIM=739.22 INV In (8"~NE)=724.29 INV Out (8"~SW)=724.19 SS-7 INSTALL SANITARY SEWER MANHOLE WITH NEENAH R-1772 CASTING OR APPROVED EQUAL AND 203 LFT OF 8" PVC @ 0.40% RIM=737.65 INV In (8"~NE)=722.98 INV Out (8"~SW)=722.88 SS-8 INSTALL SANITARY SEWER MANHOLE WITH NEENAH R-1772 CASTING OR APPROVED EQUAL AND 344 LFT OF 8" PVC @ 0.40% RIM=739.80 INV Out (8"~NW)=727.12 SS-9 INSTALL SANITARY SEWER MANHOLE WITH NEENAH R-1772 CASTING OR APPROVED EQUAL AND 237 LFT OF 8" PVC @ 0.40% RIM=738.45 INV In (8"~SE)=725.75 INV Out (8"~N)=725.65 SS-10 INSTALL SANITARY SEWER MANHOLE WITH NEENAH R-1772 CASTING OR APPROVED EQUAL AND 210 LFT OF 8" PVC @ 0.40% RIM=738.00 INV In (8"~S)=724.71 INV Out (8"~N)=724.61 SS-11 INSTALL SANITARY SEWER MANHOLE WITH NEENAH R-1772 CASTING OR APPROVED EQUAL AND 400 LFT OF 8" PVC @ 0.40% RIM=738.39 INV In (8"~S)=723.77 INV Out (8"~N)=723.67 SS-12 INSTALL SANITARY SEWER MANHOLE WITH NEENAH R-1772 CASTING OR APPROVED EQUAL AND 190 LFT OF 8" PVC @ 0.40% RIM=736.75 INV In (8"~S)=722.07 INV In (8"~NE)=722.07 INV Out (8"~W)=721.97

Transportation & Development Consultants
1000 N. 10th St., Suite 100, Indianapolis, IN 46202-1000
TEL: 317.634.1100 FAX: 317.634.1101

STRUCTURE DATA TABLES

HOMESTEADS AT HILLVIEW - SECTION 3

REGISTERED PROFESSIONAL ENGINEER
STATE OF INDIANA
0300050
BROCK J. ILLIEN
1000 N. 10th St., Suite 100, Indianapolis, IN 46202-1000
TEL: 317.634.1100 FAX: 317.634.1101

DESIGNED
JULY 12, 2018

DATE

BY

APPR.

REVISIONS

NO.

JOB No.

DATE

DESIGNED

BY

APPR.

DRAWN

DATE

DESIGNED

BY

APPR.

K/LF/LMC

DATE

DESIGNED

BY

APPR.

CHECKED

DATE

DESIGNED

BY

APPR.

TEN

DATE

DESIGNED

BY

APPR.

G/J

DATE

DESIGNED

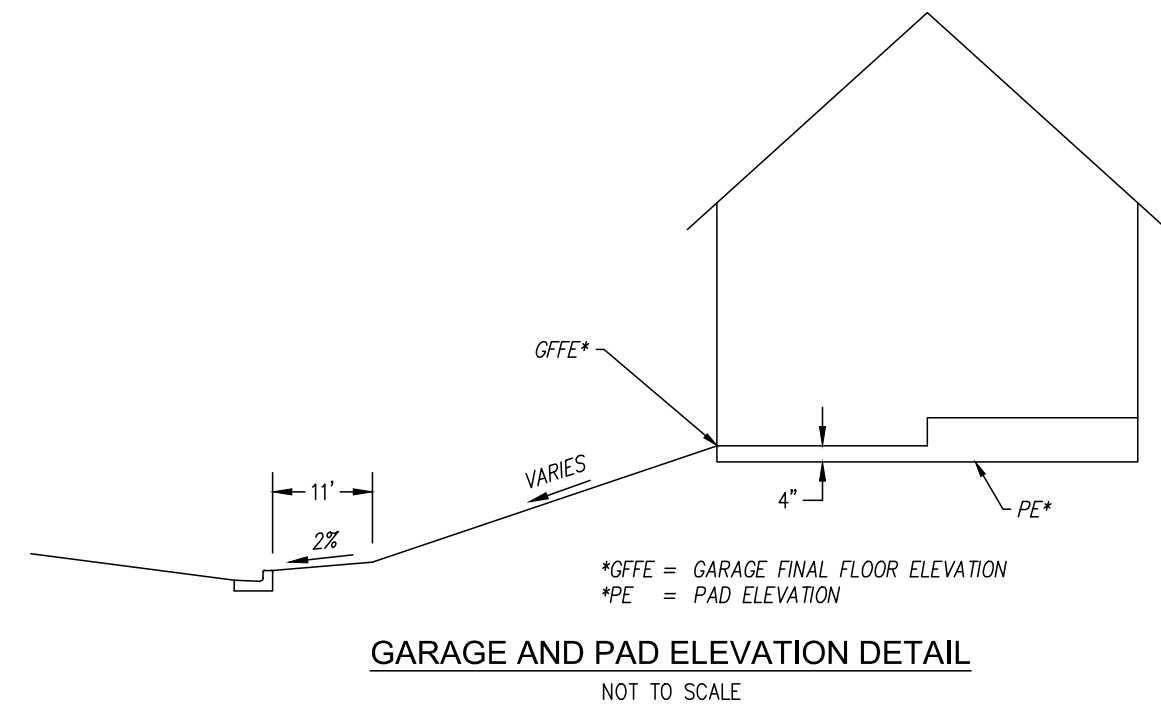
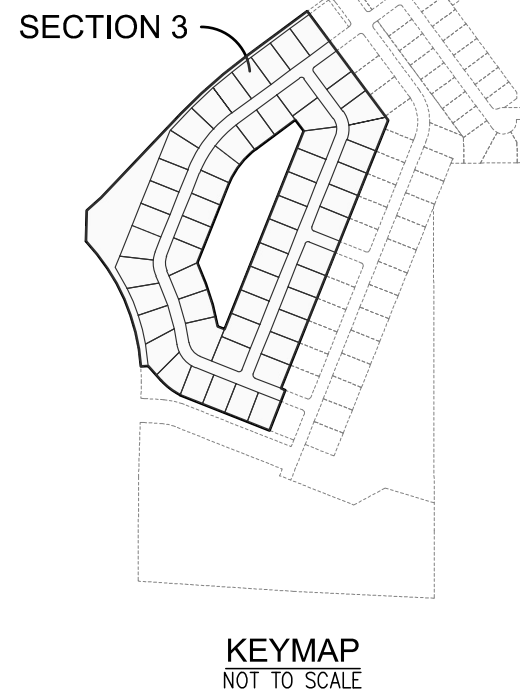
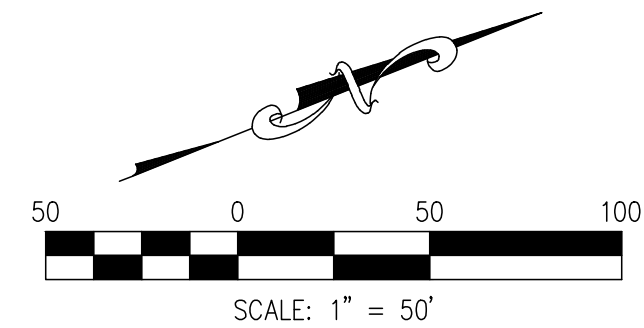
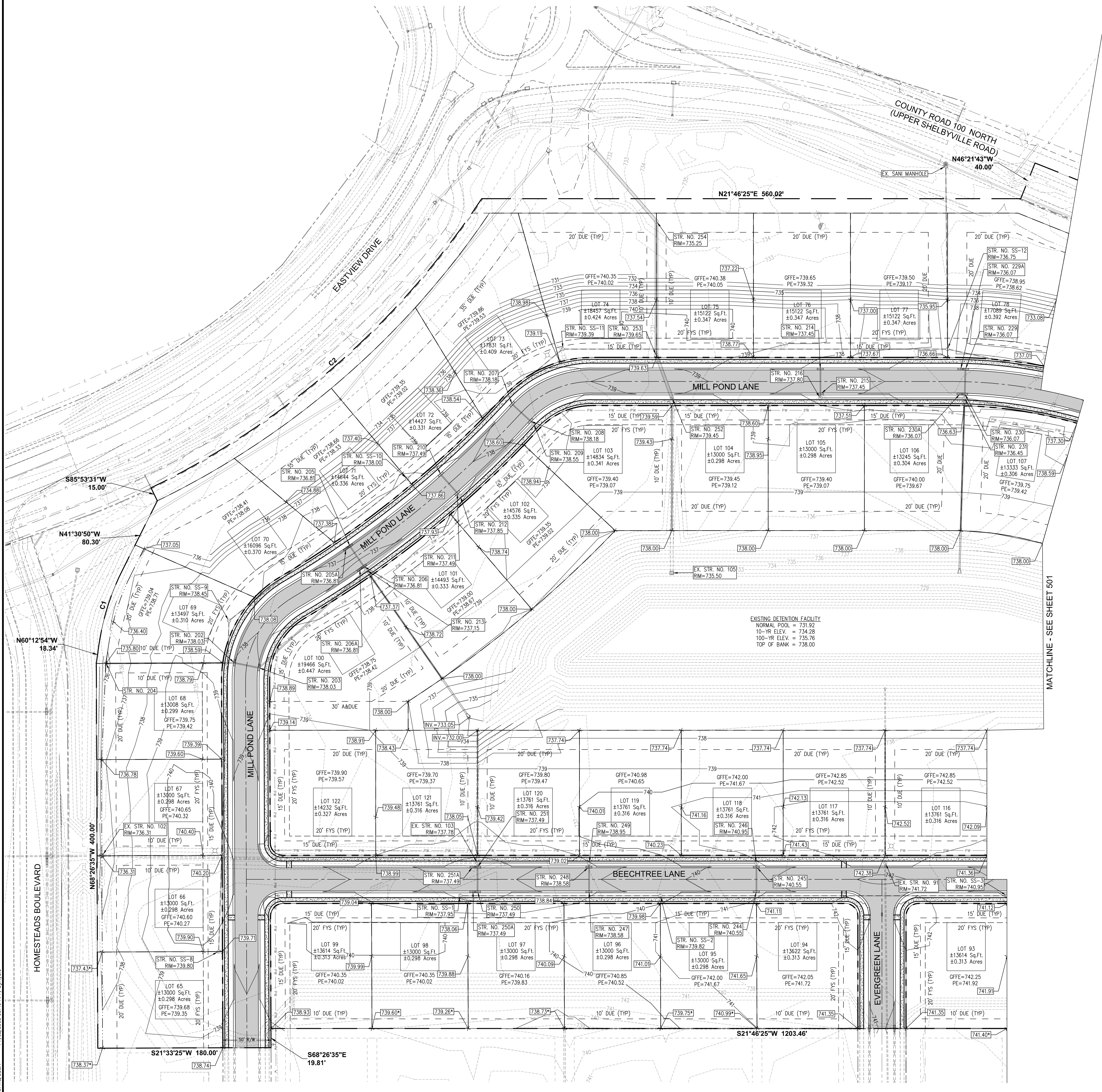
BY

APPR.

SHEET 402

402

DIRECTORY PATH : R:\Active\John Gimmer\Hillview CC Property\CAD\Phase 3 - Plans
DATE/USER : 7/12/2018 10:49 AM / J.Drivers



GRADING LEGEND	
	PROPOSED ELEVATIONS
	PROPOSED ELEVATIONS
	PROPOSED ELEVATIONS (TO BE FIELD VERIFIED)
	PROPOSED ELEVATIONS (TO BE FIELD VERIFIED)
	PROPOSED DRAINAGE SWALE
	EXISTING CONTOURS
	PROPOSED CONTOURS
	GRADE BREAK
	CURB HEIGHT TO TAPER FROM 0.5' TO 0.0' IN 6 L.F.T.

GRADING NOTES	
1.	CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE AWAY FROM ALL BUILDINGS IN FINAL GRADING OF SITE. CONTRACTOR SHALL COORDINATE WITH THE ARCHITECT TO DETERMINE PROPER FOUNDATION EXPOSURE FOR EACH BUILDING TYPE. HOWEVER, IN NO INSTANCE SHALL DRAINAGE TOWARDS THE BUILDING FOUNDATION BE ALLOWED.
2.	CONTRACTOR SHALL NOT ALLOW DRAINAGE FROM PROJECT SITE TO DISCHARGE ONTO ADJACENT PROPERTIES IN FINAL GRADING OF SITE.

CRUSSROAD
SURVEYING & ENGINEERING
Development Consultants
101 PARKWAY N. SUITE 200 • ELLETTSVILLE, IN 47207-1000

GRADING PLAN

HOMESTEADS AT HILLVIEW - SECTION 3

JOB NO.	DRAWN	KLF/LWC	CHECKED	TEN
DATE	JULY 12, 2018	DESIGNED	APPR.	CJJ

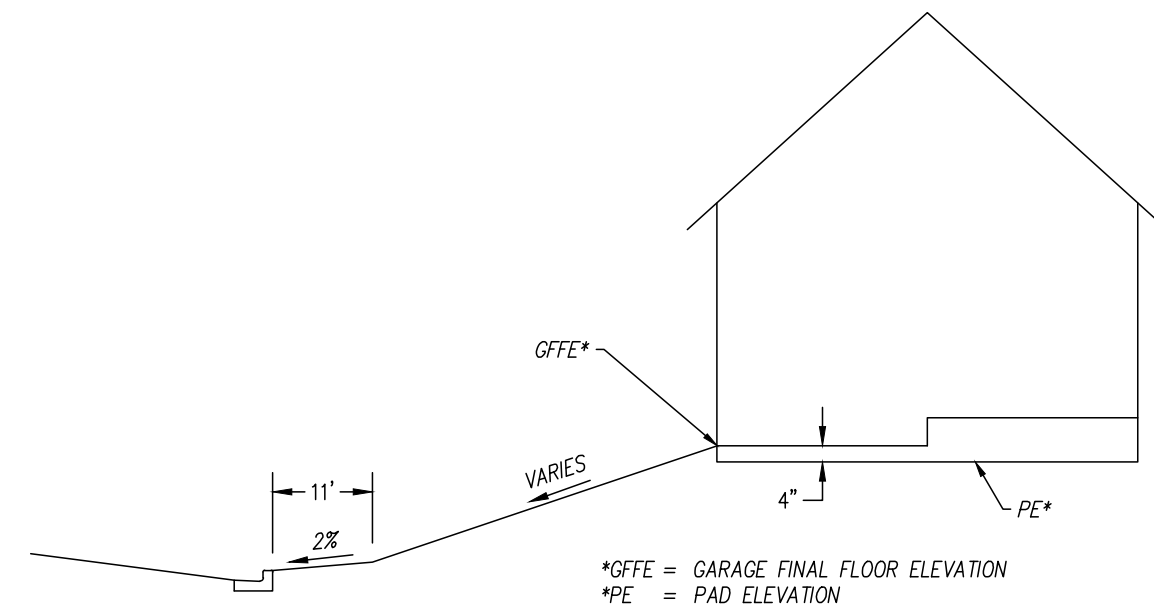
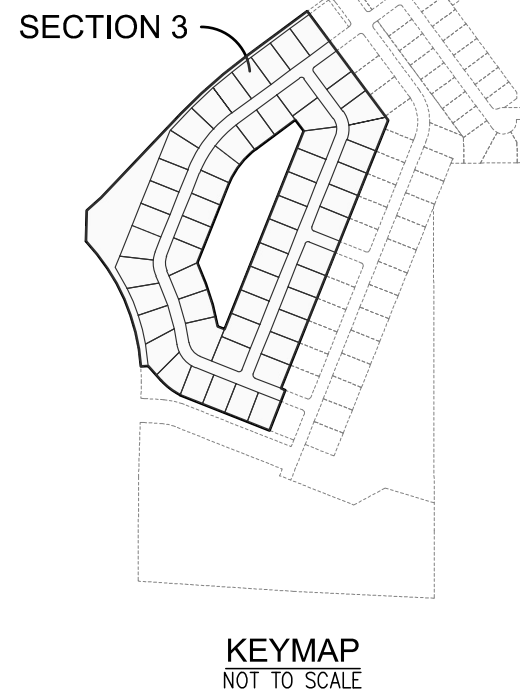
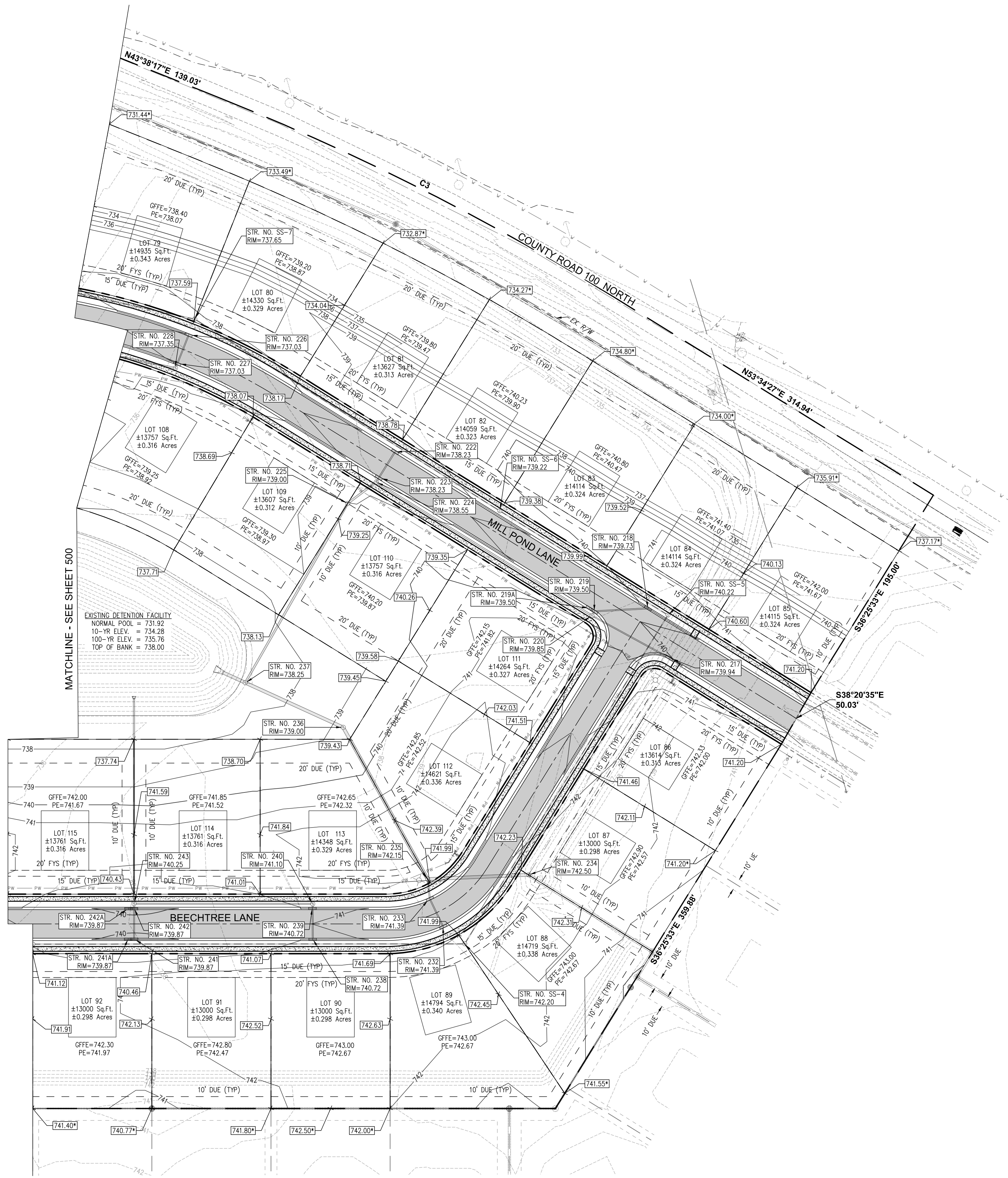
APPROVED

Gregory J. Ilkko

NO.	DATE	REVISIONS	BY	APPR.
1				
2				
3				
4				
5				
6				
7				
8				

SHEET

500



GRADING LEGEND	
	PROPOSED ELEVATIONS
	PROPOSED ELEVATIONS
	PROPOSED ELEVATIONS
	PROPOSED DRAINAGE SWALE
	EXISTING CONTOURS
	PROPOSED CONTOURS
	GRADE BREAK
	CURB HEIGHT TO TAPER FROM 0.5' TO 0.0' IN 6' L.F.

GRADING NOTES	
1. CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE AWAY FROM ALL BUILDINGS IN FINAL GRADING OF SITE. CONTRACTOR SHALL COORDINATE WITH THE ARCHITECT TO DETERMINE PROPER FOUNDATION EXPOSURE FOR EACH BUILDING TYPE, HOWEVER, IN NO INSTANCE SHALL DRAINAGE TOWARDS THE BUILDING FOUNDATION BE ALLOWED.	
2. CONTRACTOR SHALL NOT ALLOW DRAINAGE FROM PROJECT SITE TO DISCHARGE ONTO ADJACENT PROPERTIES IN FINAL GRADING OF SITE.	

CRUSSROAD CONSULTANTS
Development Consultants
2415 PARKWAY N. SUITE 200 • DALLAS, TEXAS 75244
TEL: 972.382.5544 FAX: 972.382.5545

GRADING PLAN

HOMESTEADS AT HILLVIEW - SECTION 3

JOB NO.	DRAWN	KLF/LWC	CHECKED	TEN
DATE	JULY 12, 2018	DESIGNED	DJM	CJJ

PROFESSIONAL ENGINEER
GREGORY J. IKON
10300059
STATE OF INDIANA

APPROVED

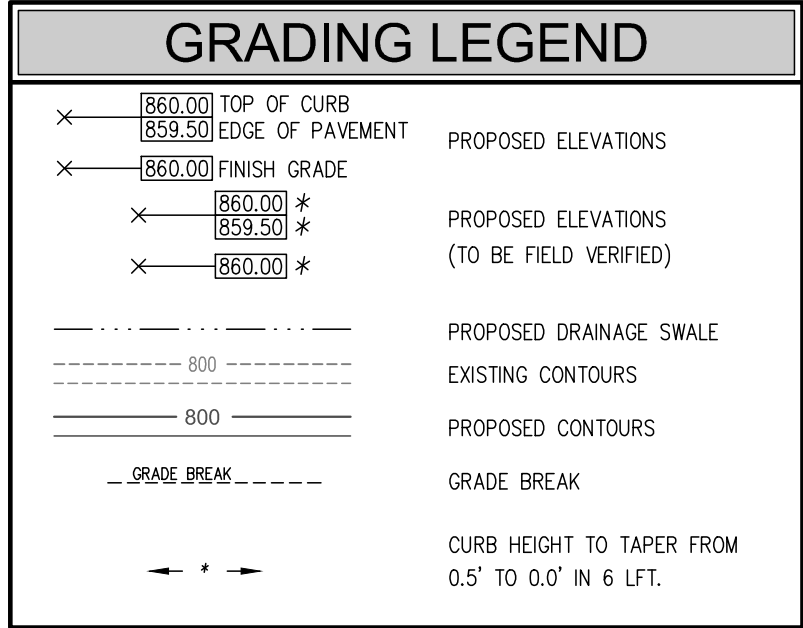
BY

NO.	DATE	REVISIONS
1		
2		
3		
4		
5		
6		
7		
8		

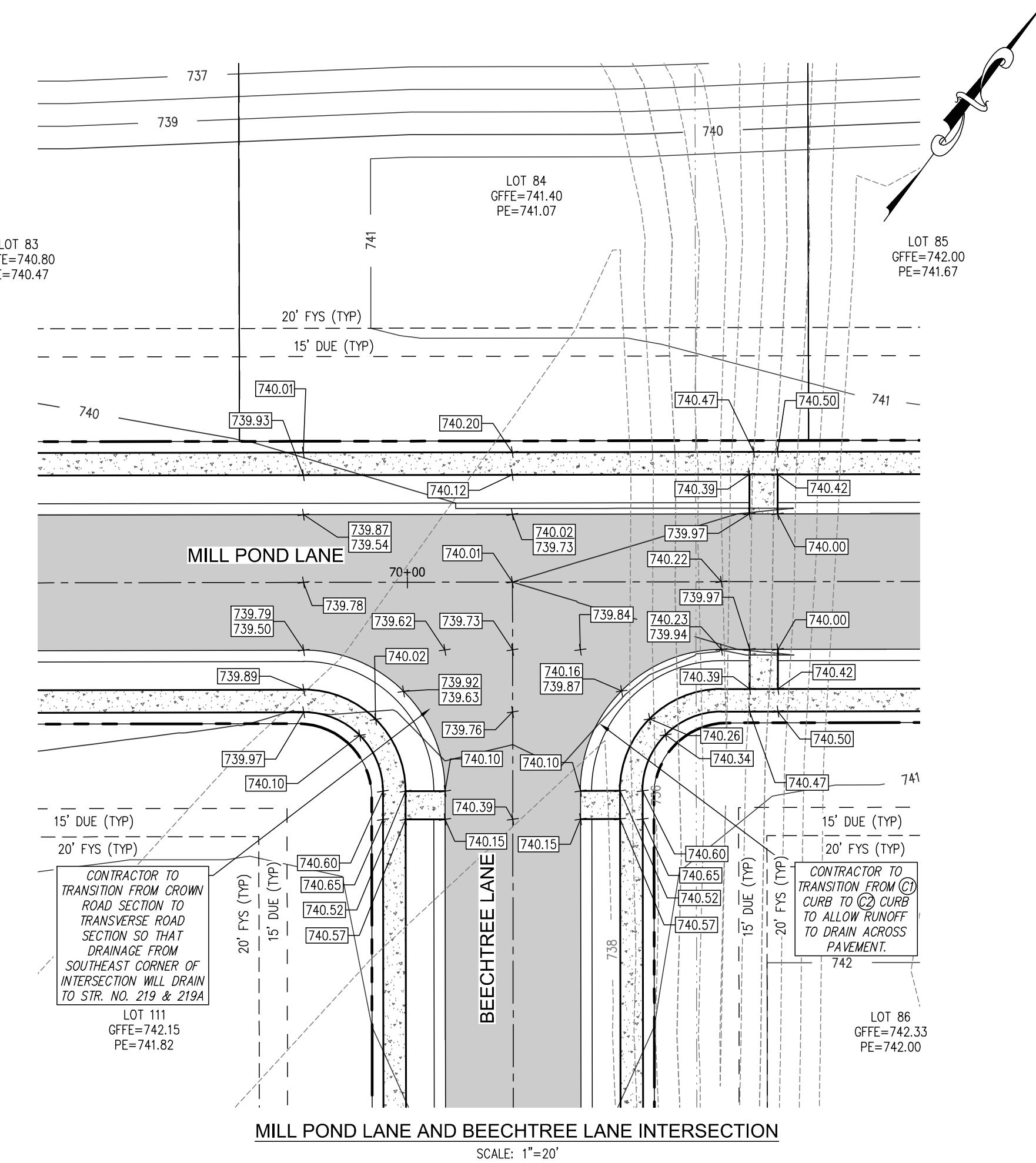
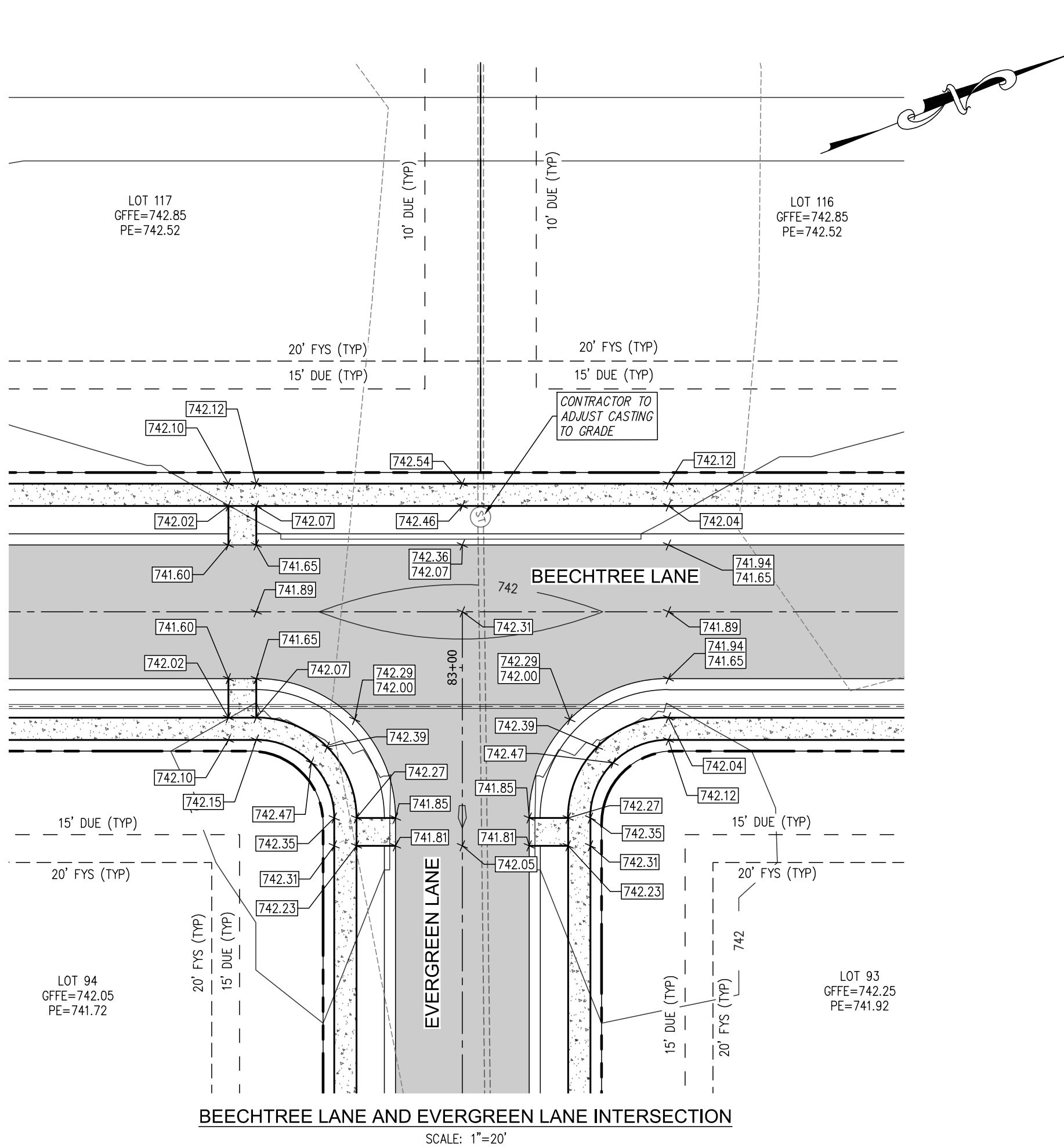
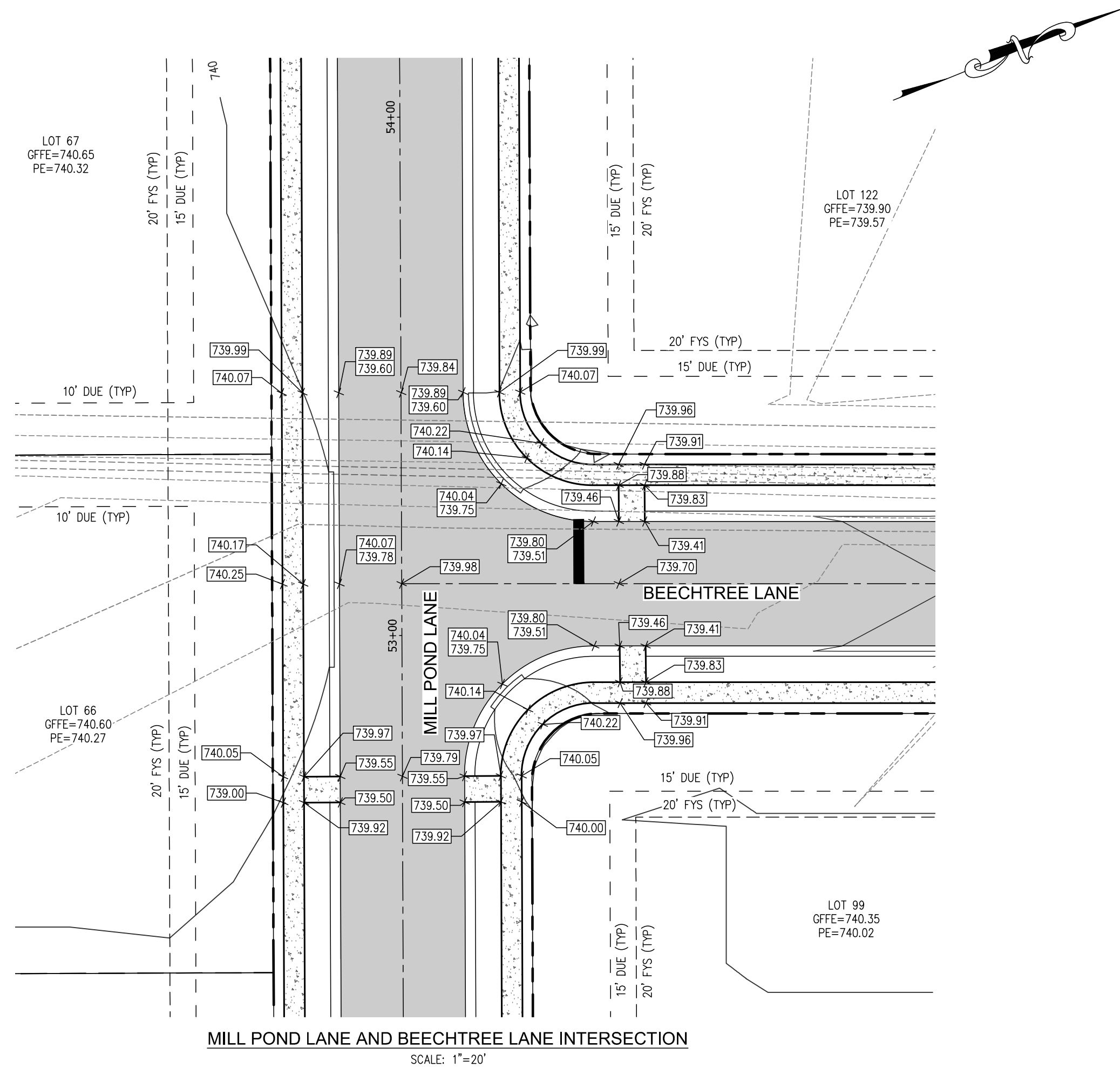
SHEET 501

501

DIRECTORY PATH : R:\Active\John Gimmer\Hillview CC Property\CAD\Phase 3 - Plans
DRAWN BY : JLG
DATE/USER : 7/12/2018 11:48 AM / JLG



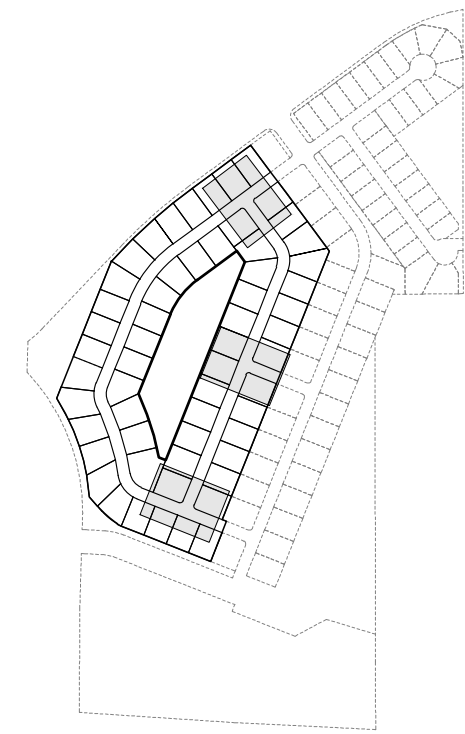
- GRADING NOTES**
1. CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE AWAY FROM ALL BUILDINGS IN FINAL GRADING OF SITE. CONTRACTOR SHALL COORDINATE WITH THE ARCHITECT TO DETERMINE PROPER FOUNDATION EXPOSURE FOR EACH BUILDING TYPE. HOWEVER, IN NO INSTANCE SHALL DRAINAGE TOWARDS THE BUILDING FOUNDATION BE ALLOWED.
 2. CONTRACTOR SHALL NOT ALLOW DRAINAGE FROM PROJECT SITE TO DISCHARGE ONTO ADJACENT PROPERTIES IN FINAL GRADING OF SITE.



THESE PLANS ARE BASED UPON INFORMATION FROM AN ALTA/ACSM LAND TITLE SURVEY PERFORMED BY CAW LAND SURVEYING, INC. WITH WORK ORDER NO. 130100 AND DATED JUNE 7, 2013 AND SURVEY INFORMATION PROVIDED BY JERRY WIGGINS SURVEYING.



PER INDIANA STATE LAW 15-89-1591, IT IS AGAINST THE LAW TO EXCAVATE WITHOUT NOTIFYING THE UNDERGROUND LOCATION SERVICE TWO (2) WORKING DAYS BEFORE COMMENCING WORK.



KEYMAP
NOT TO SCALE



INTERSECTION GRADING PLAN

HOMESTEADS AT HILLVIEW - SECTION 3

JOB No.	DRAWN	K/LF/LWC	CHECKED	TECH
DATE	JULY 12, 2018	DESIGNED	DJM	APPR. GJJ



NO.	DATE	REVISIONS	BY	APPR.
9				
8				
7				
6				
5				
4				
3				
2				
1				

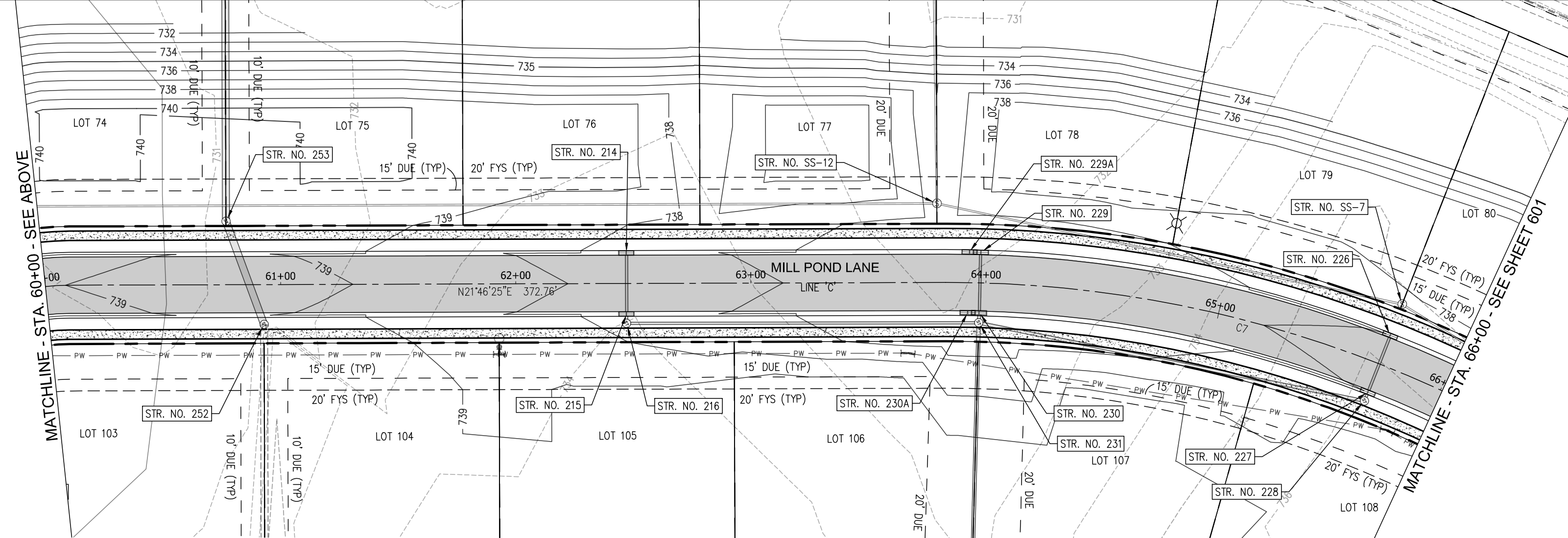
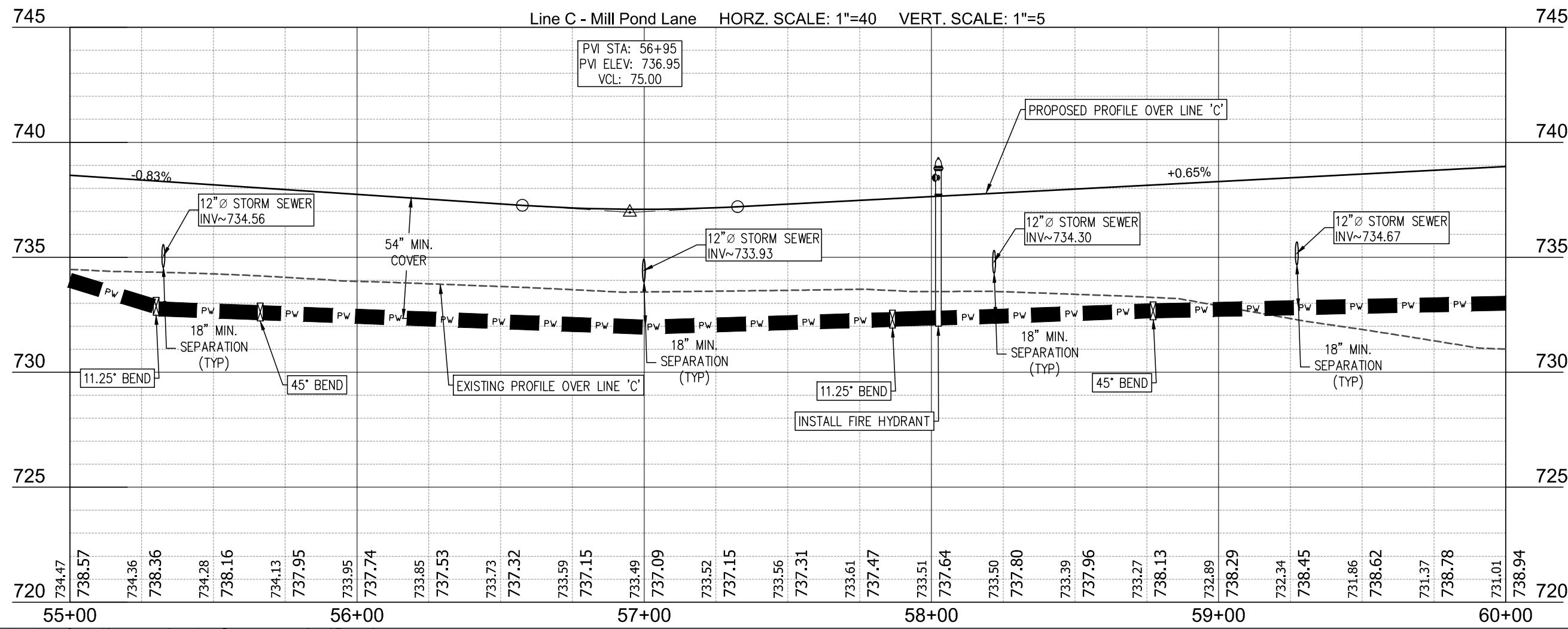
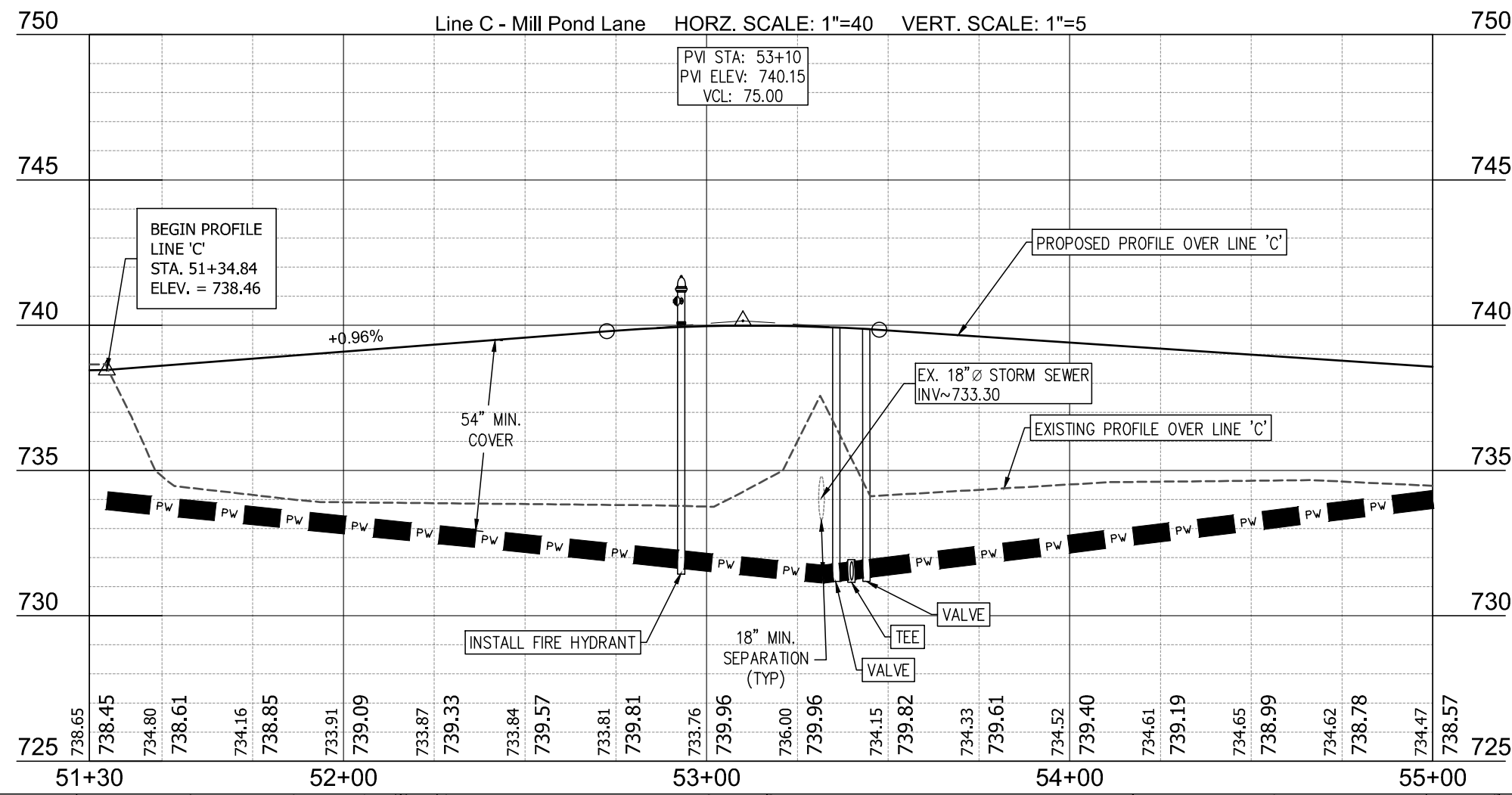
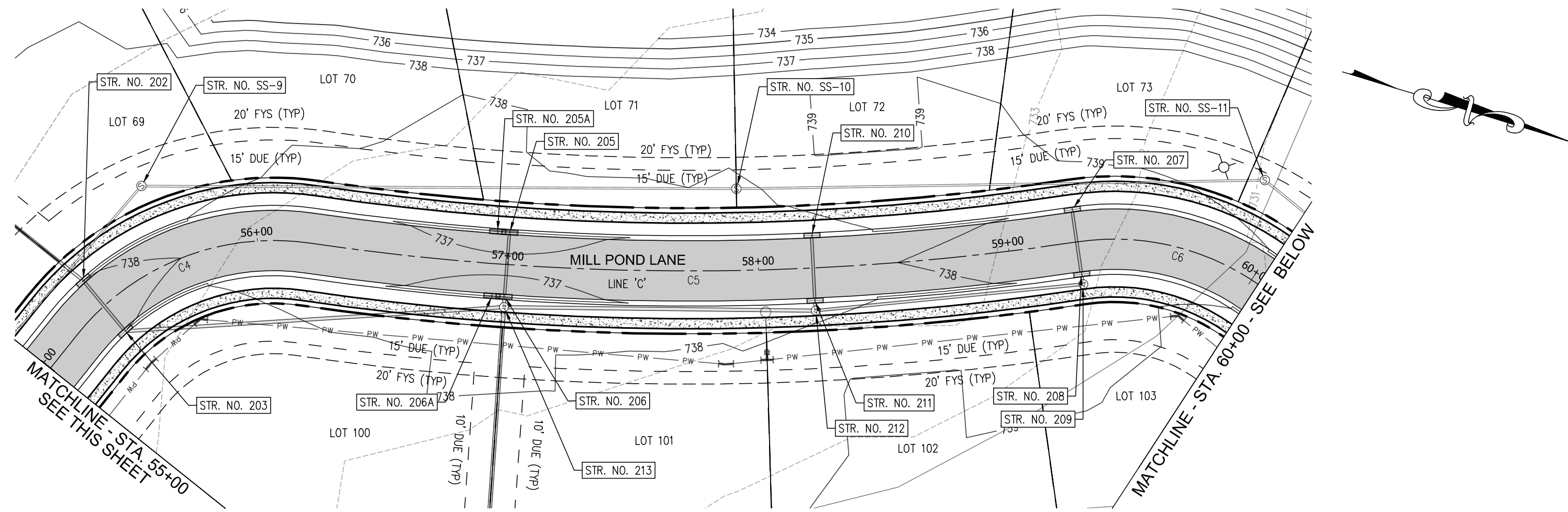
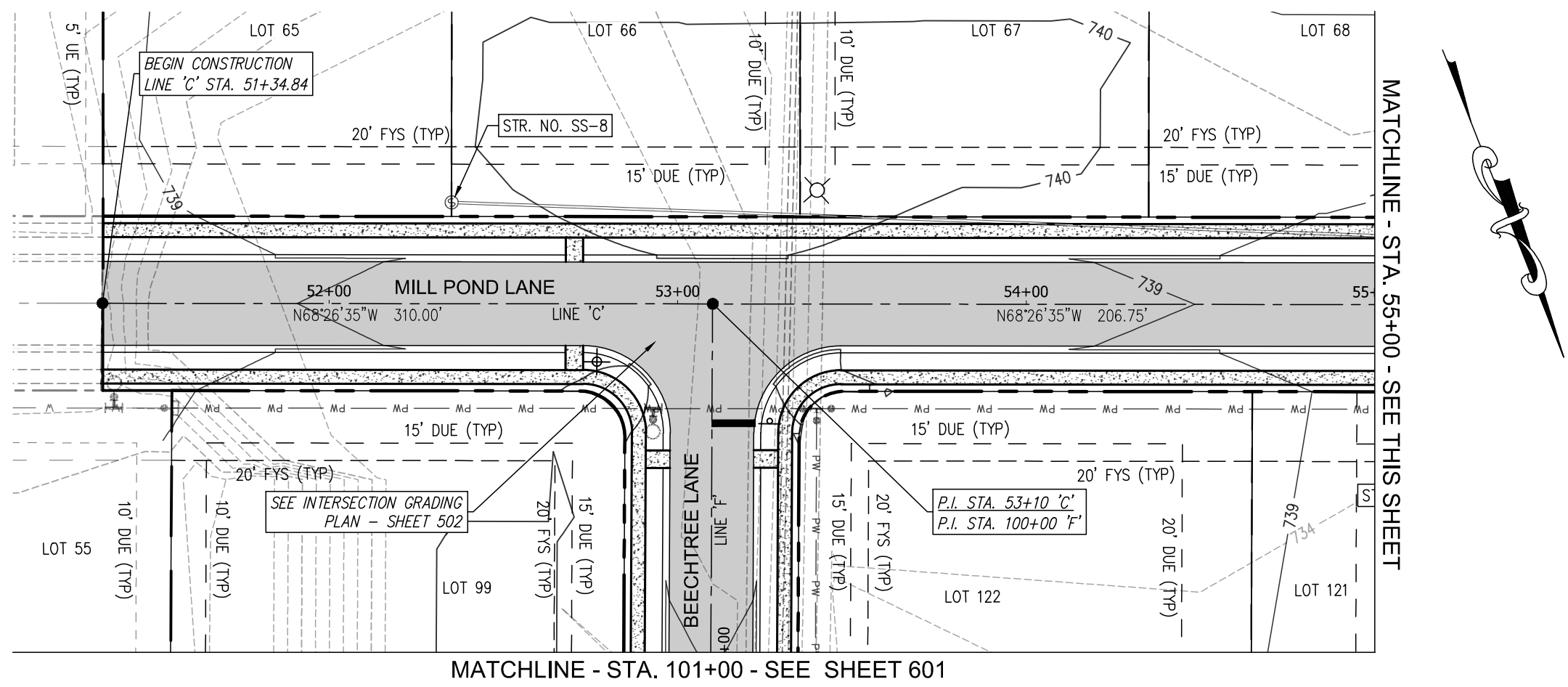
SHEET

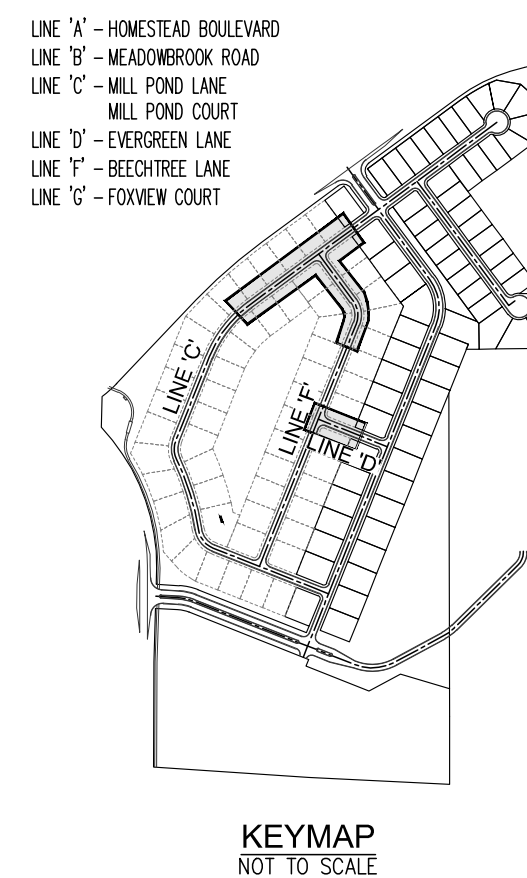
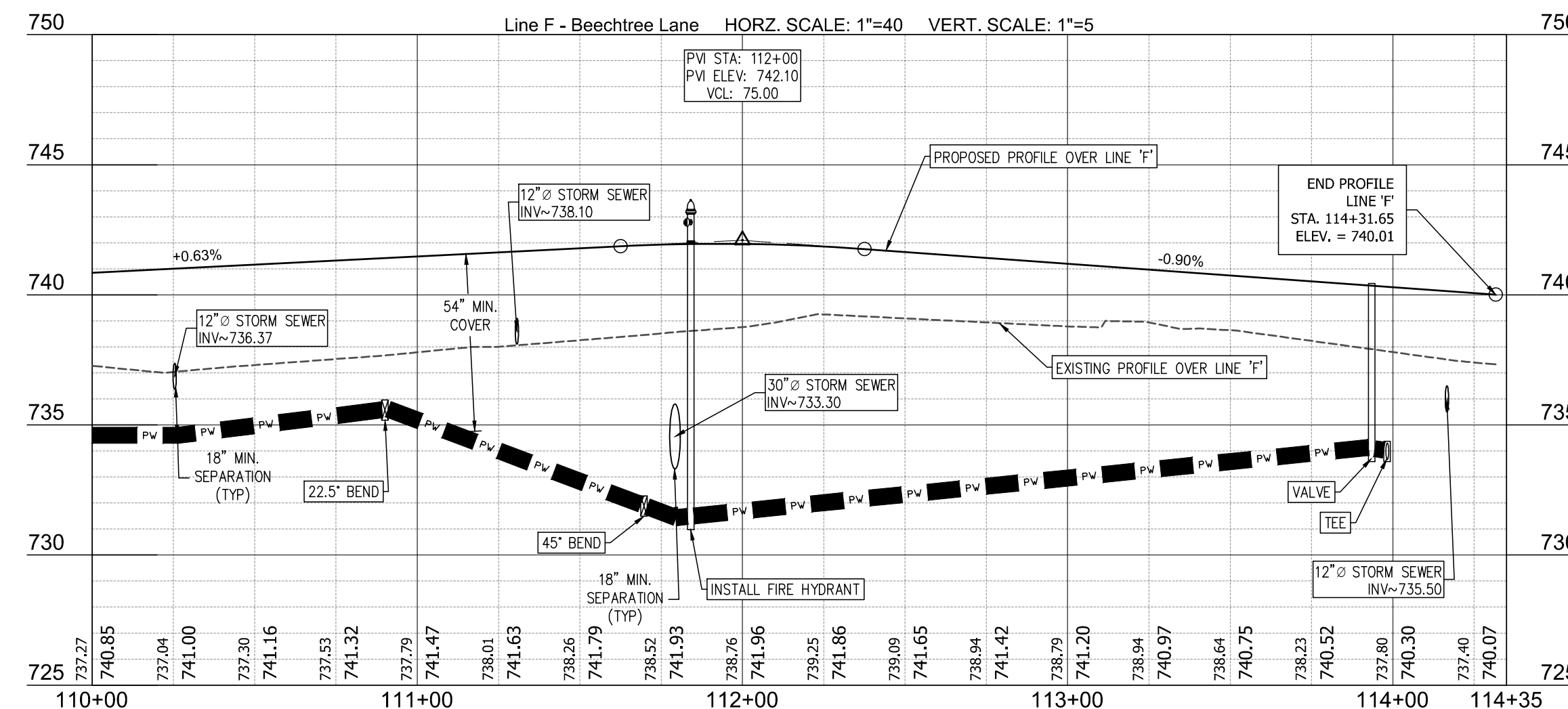
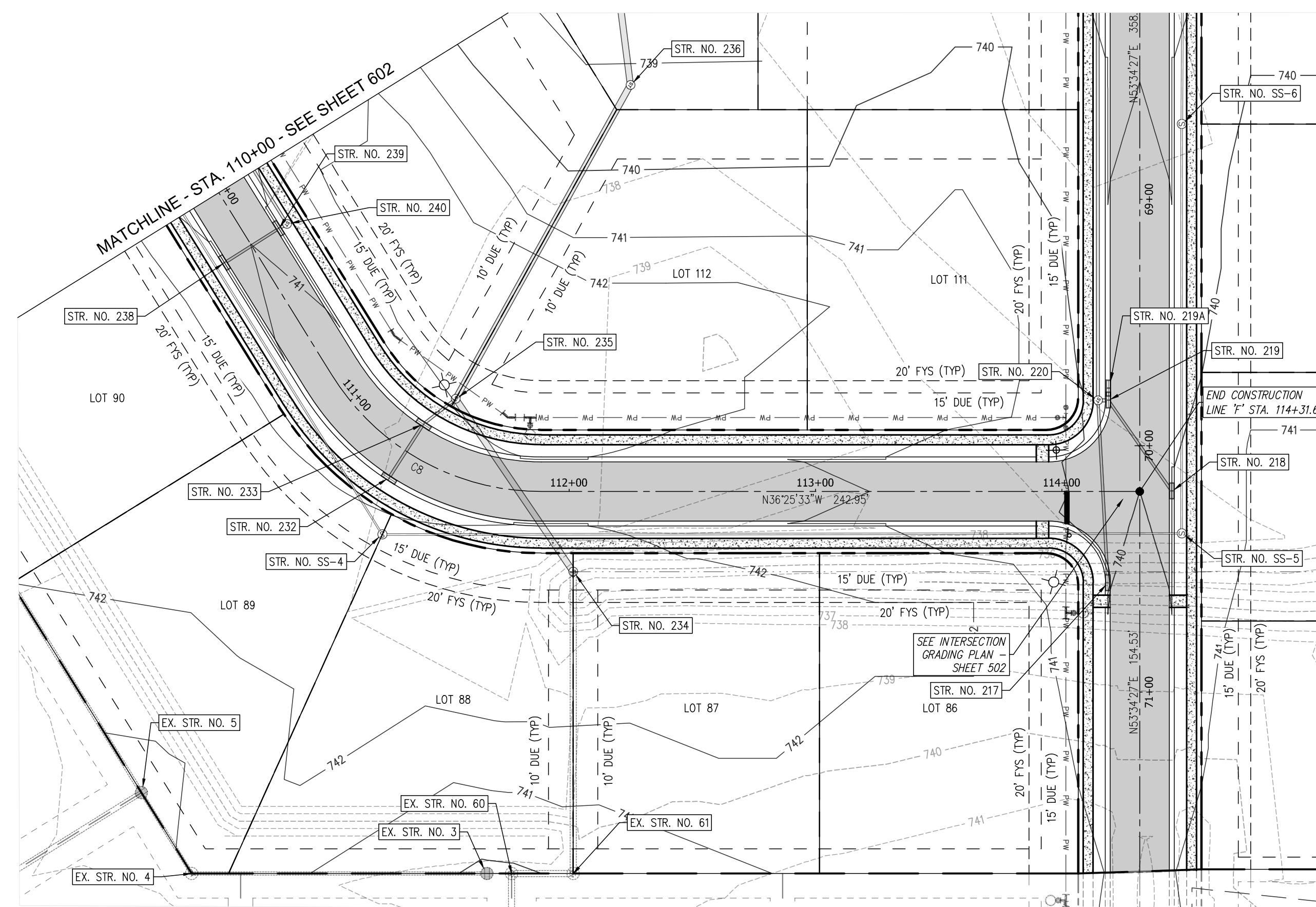
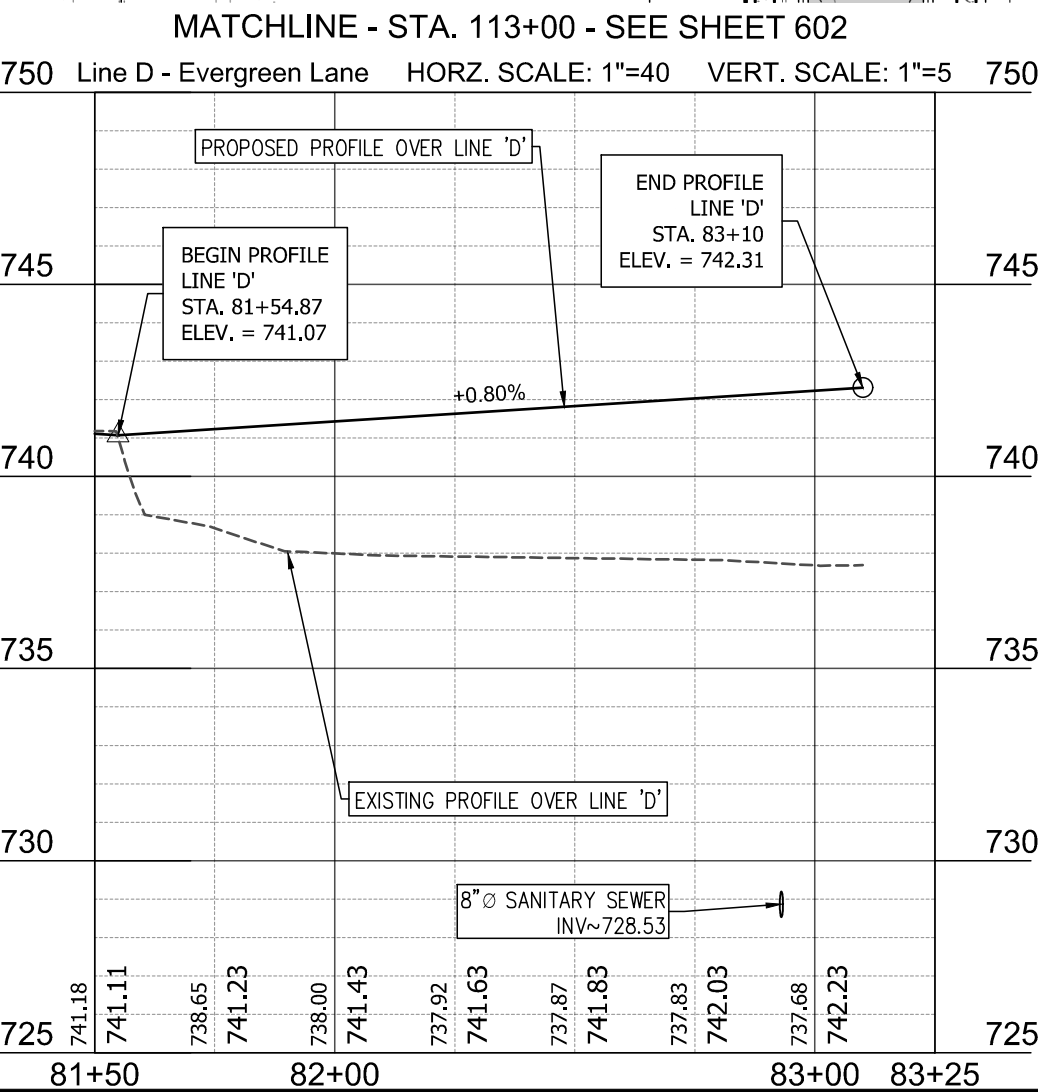
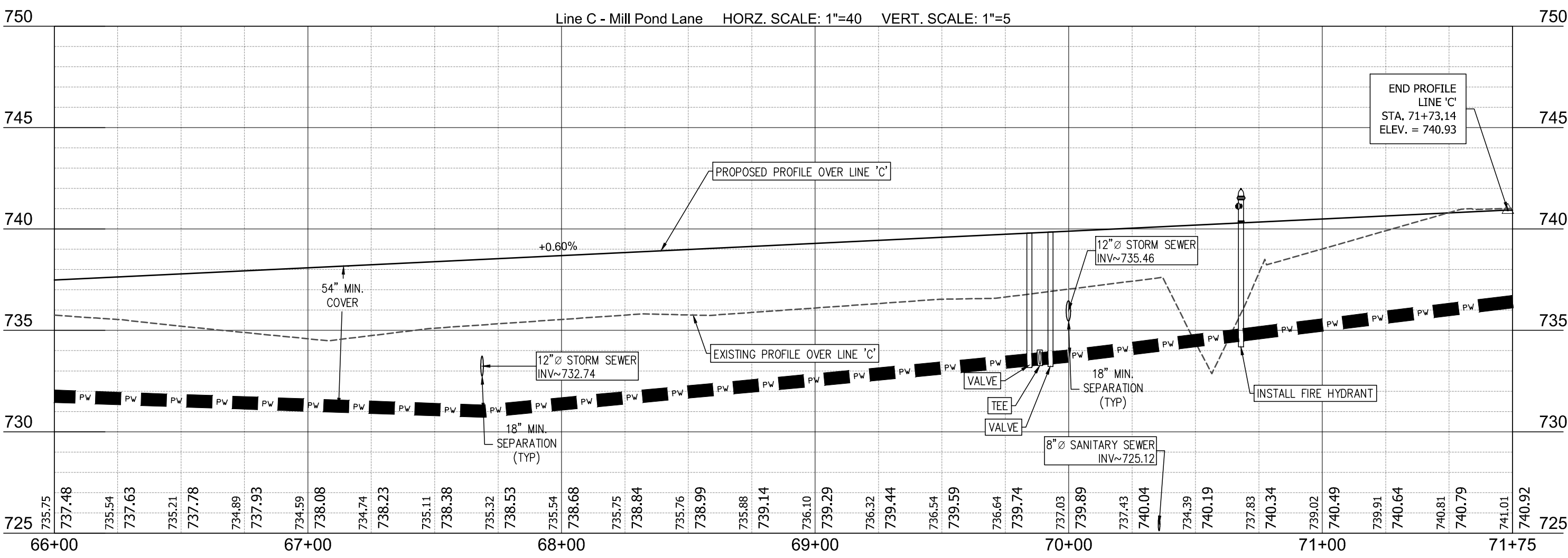
502

SHEET

502

DIRECTORY PATH : R:\Active\John Grimmer\Hillview CC Property\CAD\Phase 3 - Plans
DATEUSER : 21/12/2018 9:34 AM / LCOW





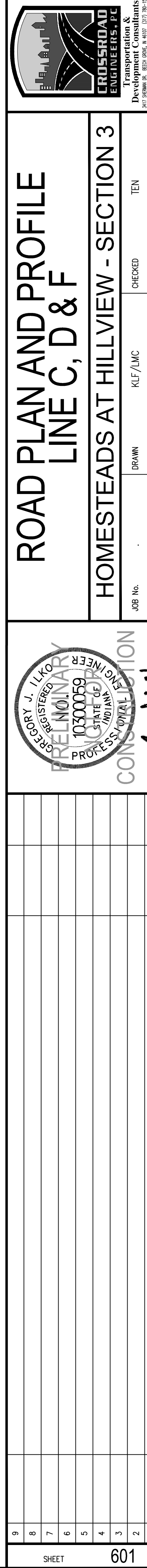
Know what's below. Call before you dig.
"IT'S THE LAW"
 CALL 2 WORKING DAYS BEFORE YOU DIG
 1-800-382-5544 or 811

CALL TOLL FREE
PER INDIANA STATE LAW IS-69-1991, IT IS AGAINST THE LAW
TO EXCAVATE WITHOUT NOTIFYING THE UNDERGROUND LOCATIONS
SERVICE TWO (2) WORKING DAYS BEFORE COMMENCING WORK

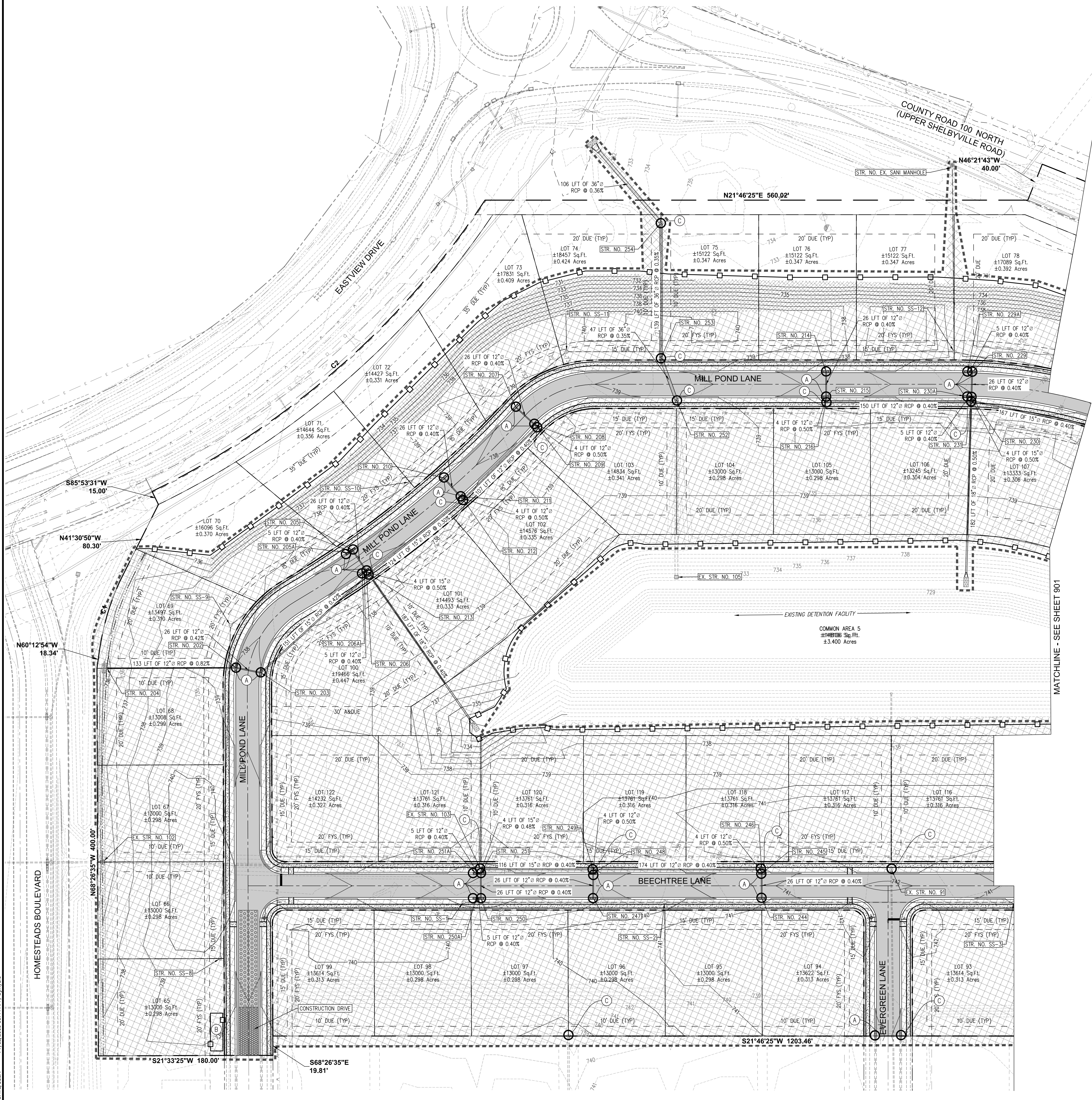
NOTE:
NO WORK DISTURBING ACTIVITY
BE UNTIL A STORM WATER
PERMIT IS OBTAINED.

THESE PLANS ARE BASED UPON INFORMATION FROM AN ALTA/ACSM LAND TITLE SURVEY PERFORMED BY CKW LAND SURVEYING, INC. WITH WORK ORDER NO. 130100 AND DATED JUNE 7, 2013 AND SURVEY INFORMATION PROVIDED BY JERRY WIGGINS SURVEYING.

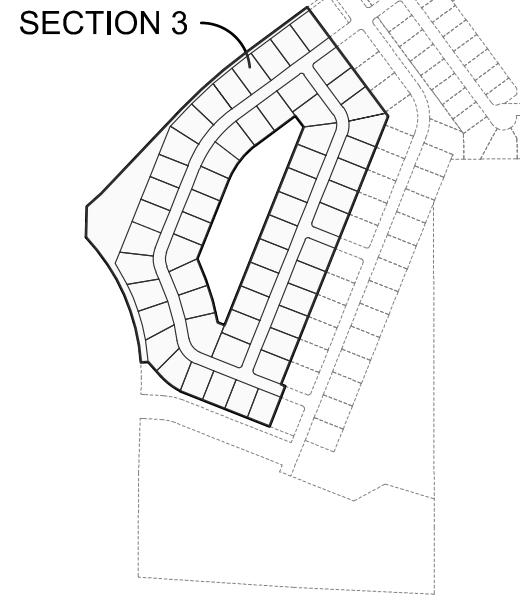
WATERLINE NOTE: HORIZONTAL AND VERTICAL DEFLECTIONS OF THE WATER MAIN ARE NOT PERMITTED. VERTICAL SEPARATIONS AND CHANGES IN HORIZONTAL ALIGNMENT SHALL BE ACHIEVED WITH BENDS AND FITTINGS. ALL INSTALLED VERTICAL AND HORIZONTAL FITTINGS AND BENDS SHALL CLEARLY BE INDICATED ON AS-BUILT DRAWINGS.



DIRECTORY PATH : R:\Active\John Gimmel\Hillview CC Property\CAD\Phase 3 - Plans
DATE/USER : 7/12/2018 11:44 AM / J.Drings

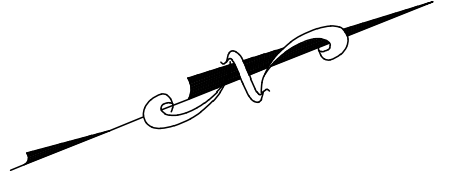
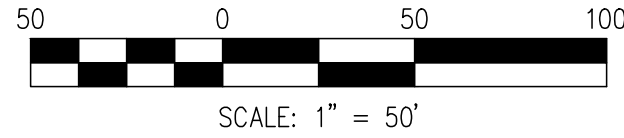


MATCHLINE - SEE SHEET 901



KEYMAP
NOT TO SCALE

Indiana811
Know what's Below. Call before you dig.
"IT'S THE LAW"
CALL 2 WORKING DAYS BEFORE YOU DIG
1-800-382-5544 or 811
CALL TOLL FREE
PER INDIANA STATE LAW 15-69-1991 IT IS AGAINST THE LAW
TO EXCAVATE WITHOUT NOTING THE UNDERGROUND LOCATION
SERVICE TWO (2) WORKING DAYS BEFORE COMMENCING WORK.



SEE SHEET 902 FOR
EROSION CONTROL
DETAILS AND NOTES

THESE PLANS ARE BASED UPON INFORMATION
FROM AN ALTA/ACSM LAND TITLE SURVEY
PERFORMED BY CKW LAND SURVEYING, INC. WITH
WORK ORDER NO. 130100 AND DATED JUNE 7,
2013 AND SURVEY INFORMATION PROVIDED BY
JERRY WIGGINS SURVEYING.

EROSION CONTROL NOTES

1. ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED BY STATE, COUNTY, OR LOCAL OFFICIALS.
2. ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED IN THE FIELD BY THE INSPECTOR.
3. CONSTRUCTION STAGING AREA (TO BE DETERMINED BY CONTRACTOR) SHALL INCLUDE THE NOI POSTING, PORT-O-LETS, TRASH CONTAINERS, AND FUELING TANKS.
4. A TRAINED INDIVIDUAL MUST PERFORM AN INSPECTION ONCE A WEEK AND AFTER EVERY 1/2" OR MORE RAIN EVENT. A LOG OF THE INSPECTION REPORTS MUST BE KEPT AND MADE AVAILABLE TO THE TOWN INSPECTOR UPON REQUEST.
5. ALL INDIVIDUAL LOT EROSION CONTROL MEASURES SHALL BE IN ACCORDANCE WITH THE LOT TEMPLATE DETAIL ON SHEET 901.

EROSION CONTROL LEGEND

- MULCHED SEEDING
- EROSION CONTROL BLANKET (NORTH AMERICAN GREEN SC-150 OR EQUAL) AND MULCHED SEEDING
- REVEITEMT RIPRAP (SEE DETAIL - SHEET 901)
- CONSTRUCTION DRIVE (SEE DETAIL - SHEET 901)
- EXISTING CONTOURS
- PROPOSED CONTOURS
- SILT FENCE SLOPE CHECK (NUTEC 3 NWS-6 OR APPROVED EQUAL)
- CONSTRUCTION LIMITS
- SILT SACK DETAIL (SEE DETAIL - SHEET 901)
- CONCRETE WASHOUT AREA (SEE DETAIL - SHEET 901)
- DROP FABRIC INLET PROTECTION (SEE DETAIL - SHEET 901)

EROSION CONTROL PLAN

HOMESTEADS AT HILLVIEW - SECTION 3

JOB NO.	DRAWN	KLF/LWC	CHECKED	TEN
DATE	JULY 12, 2018	DESIGNED	APPR.	CJJ

SHEET 900

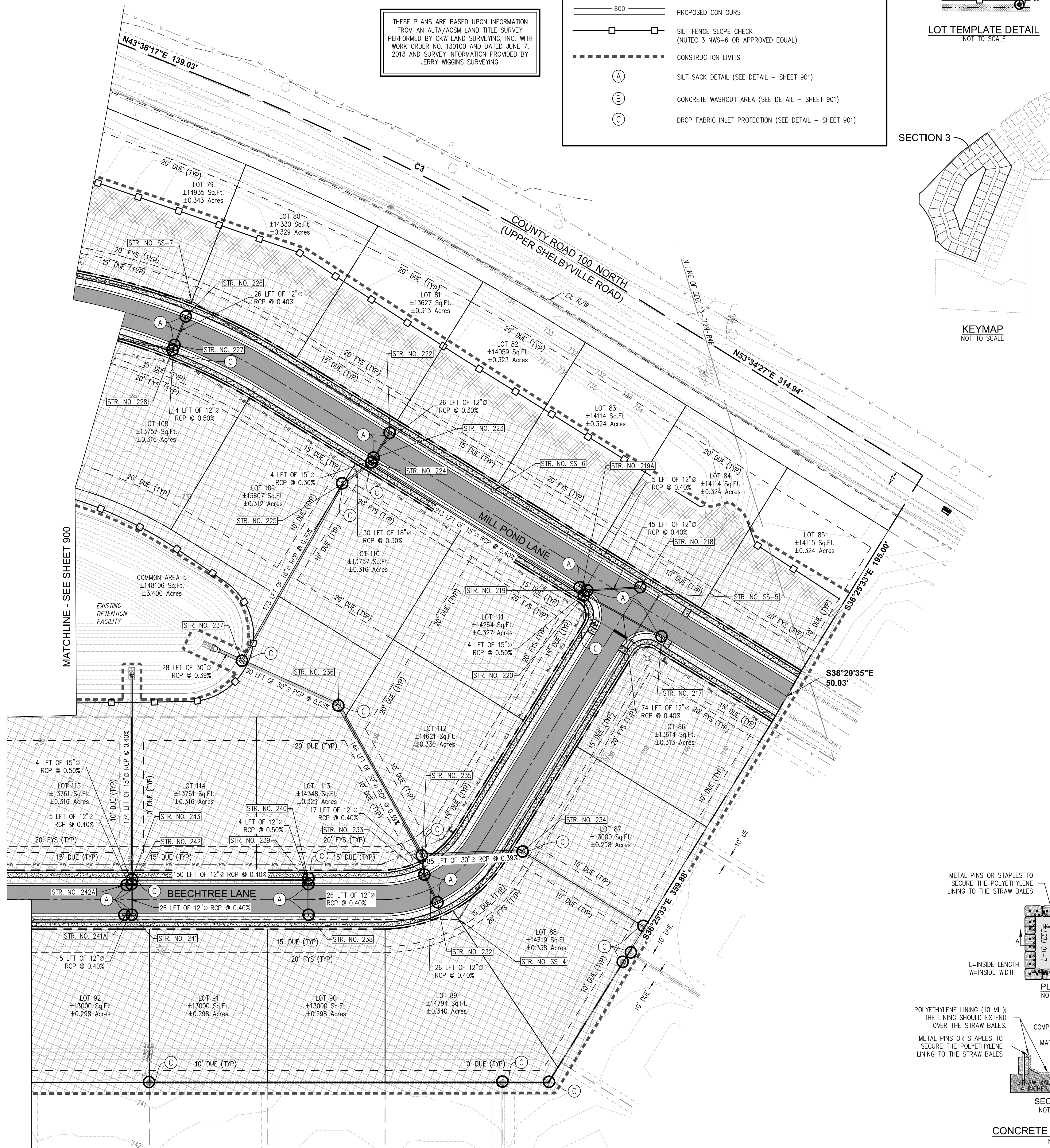
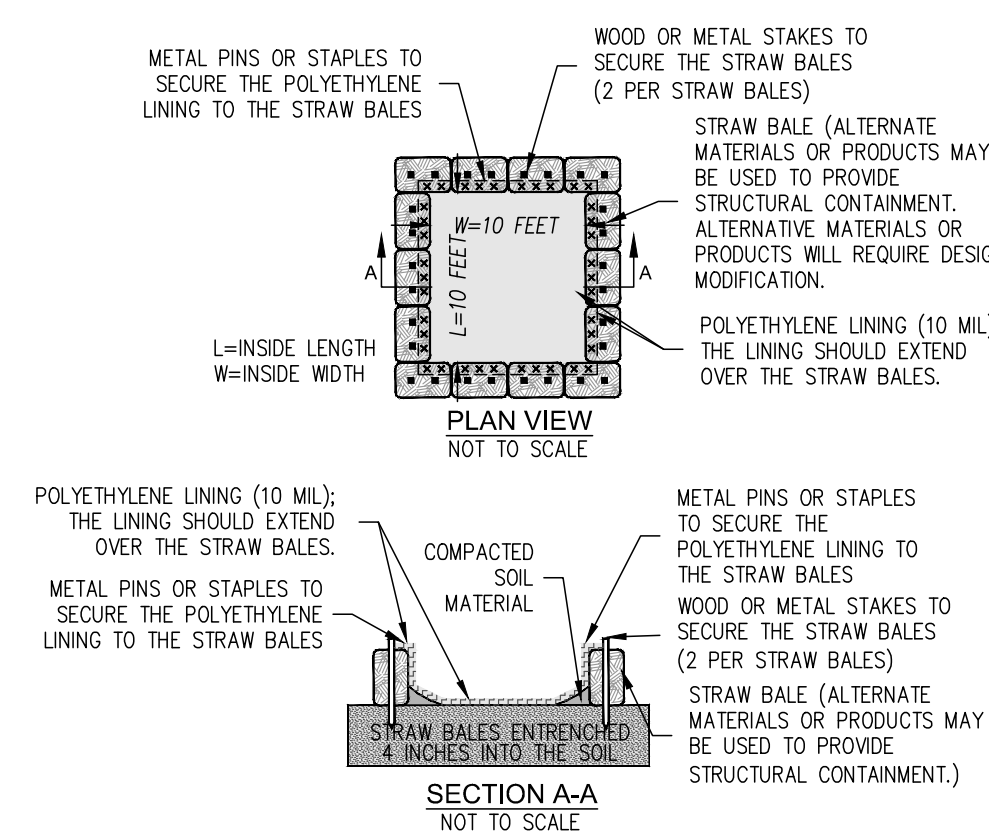
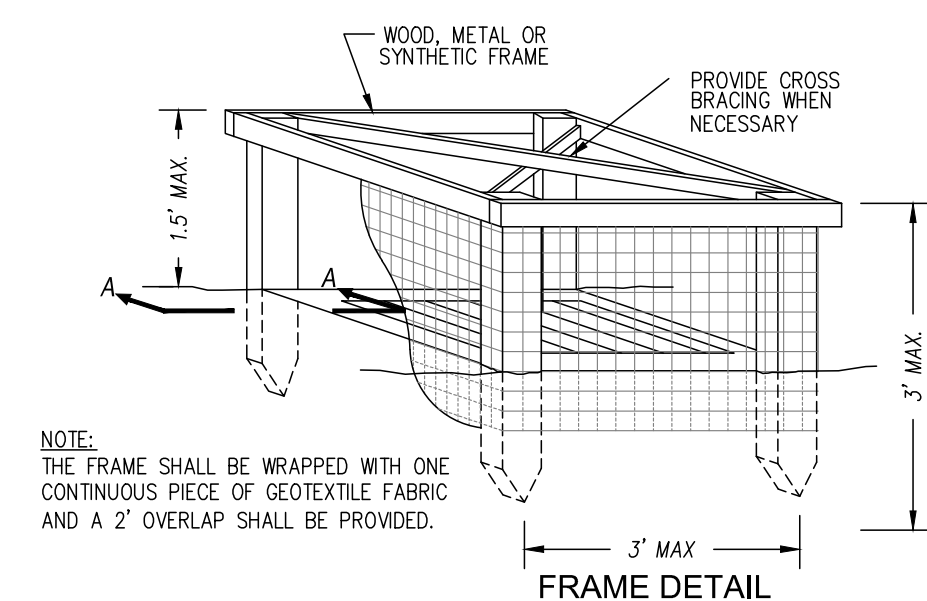
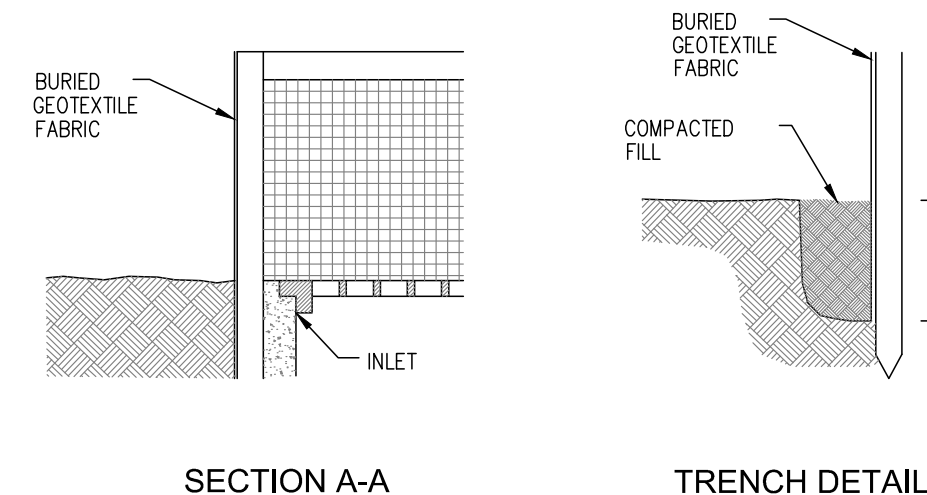
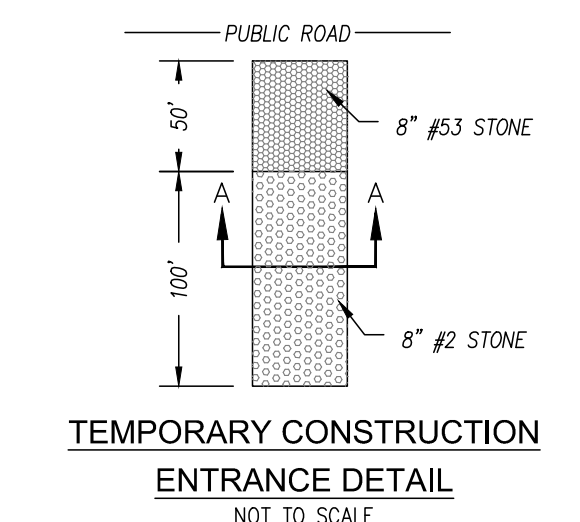
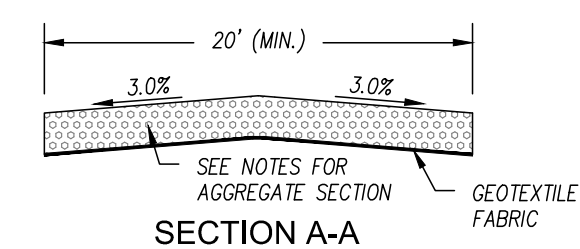
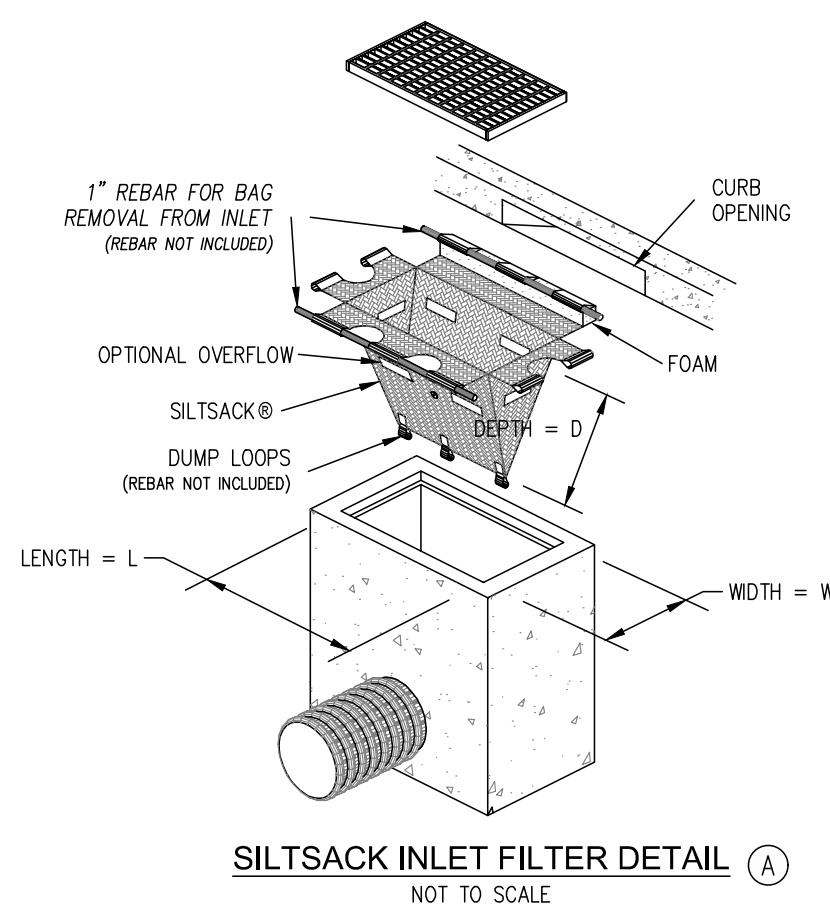
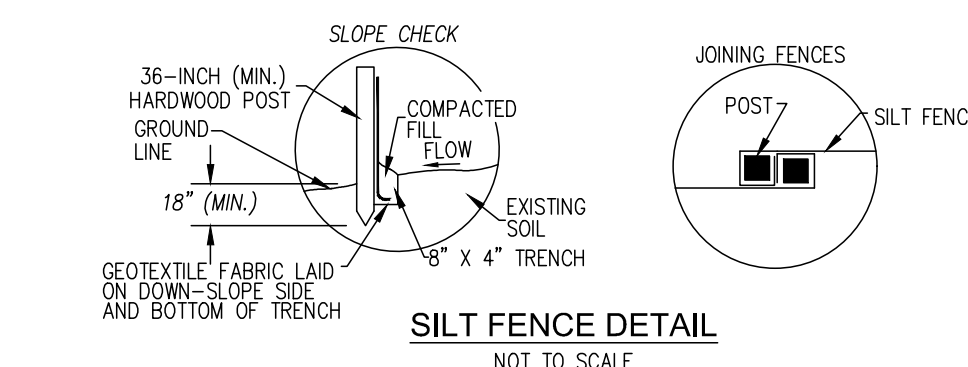
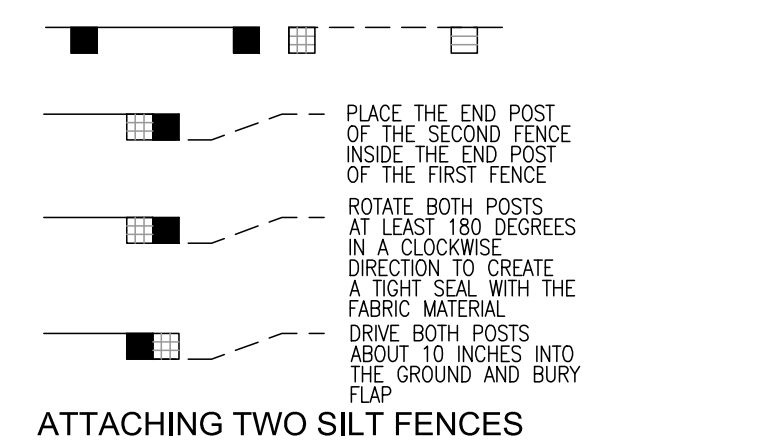
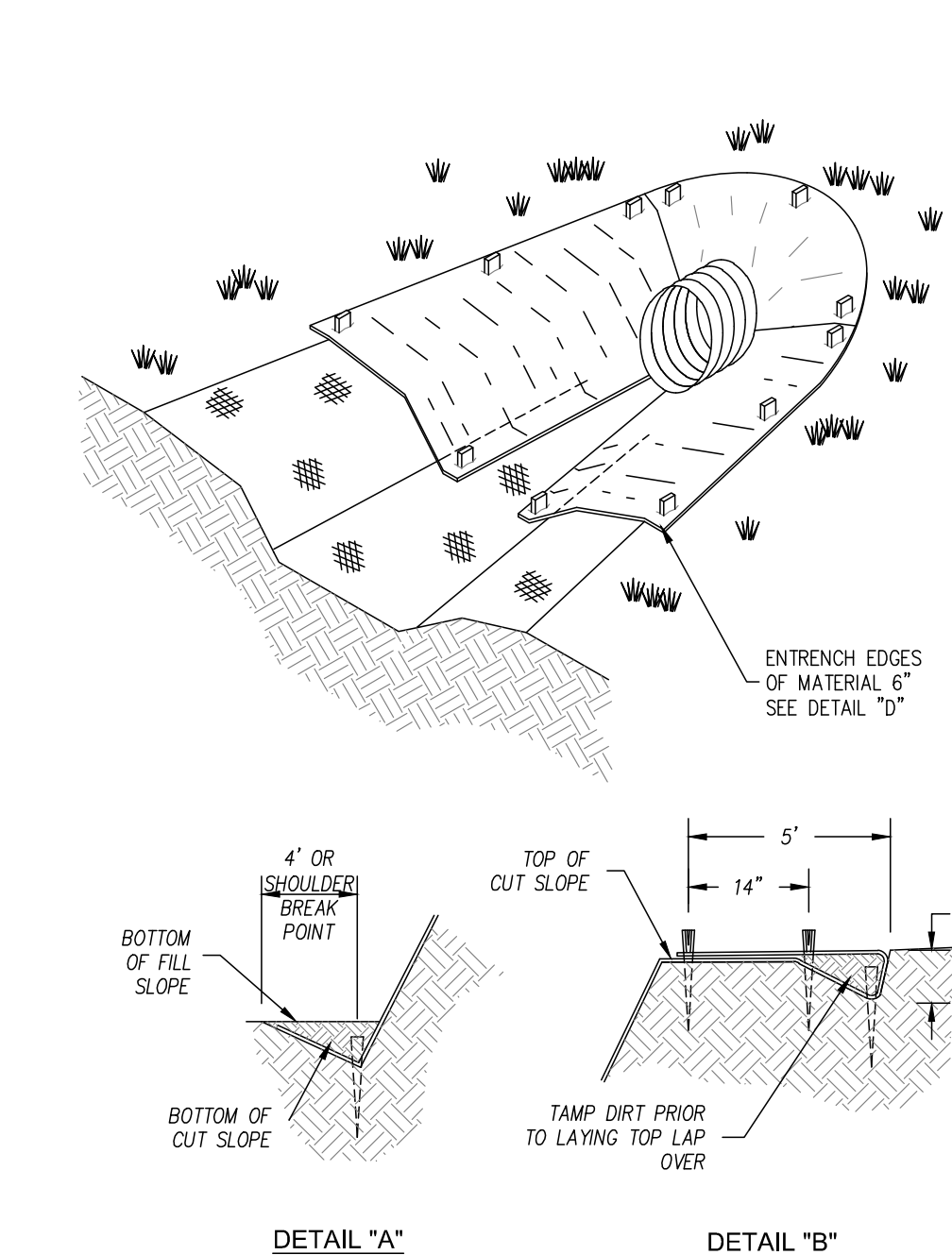
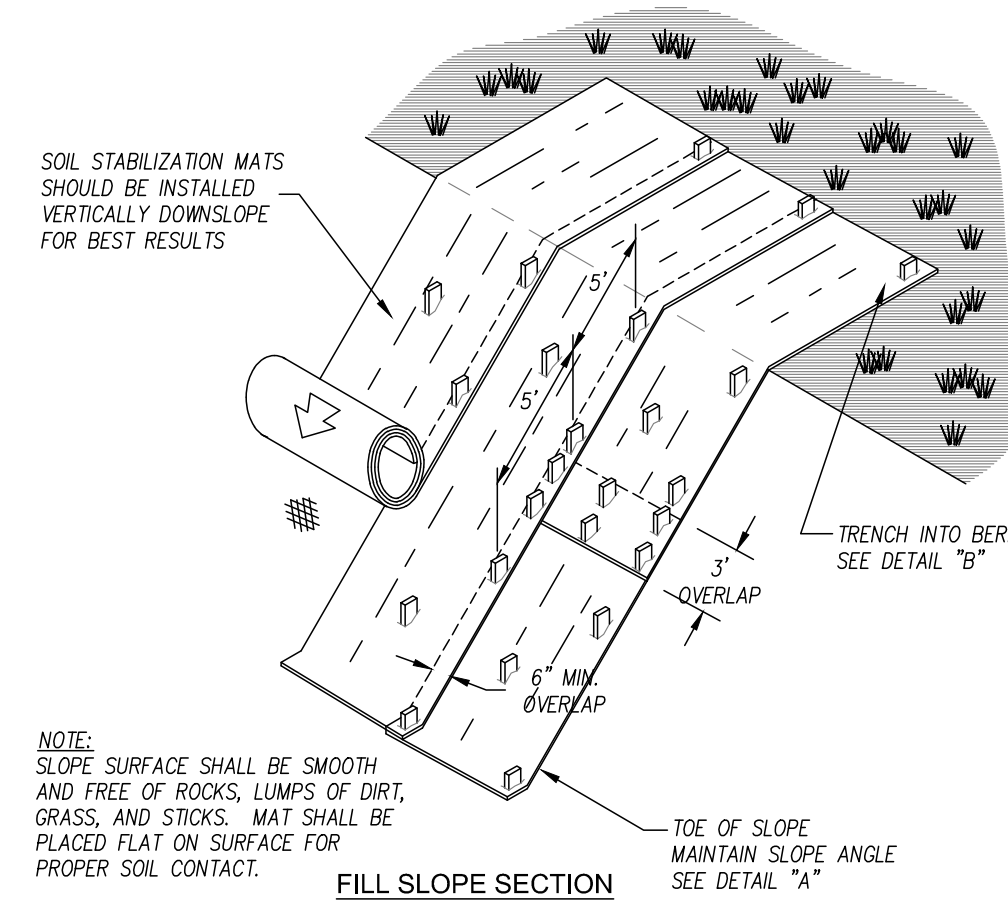
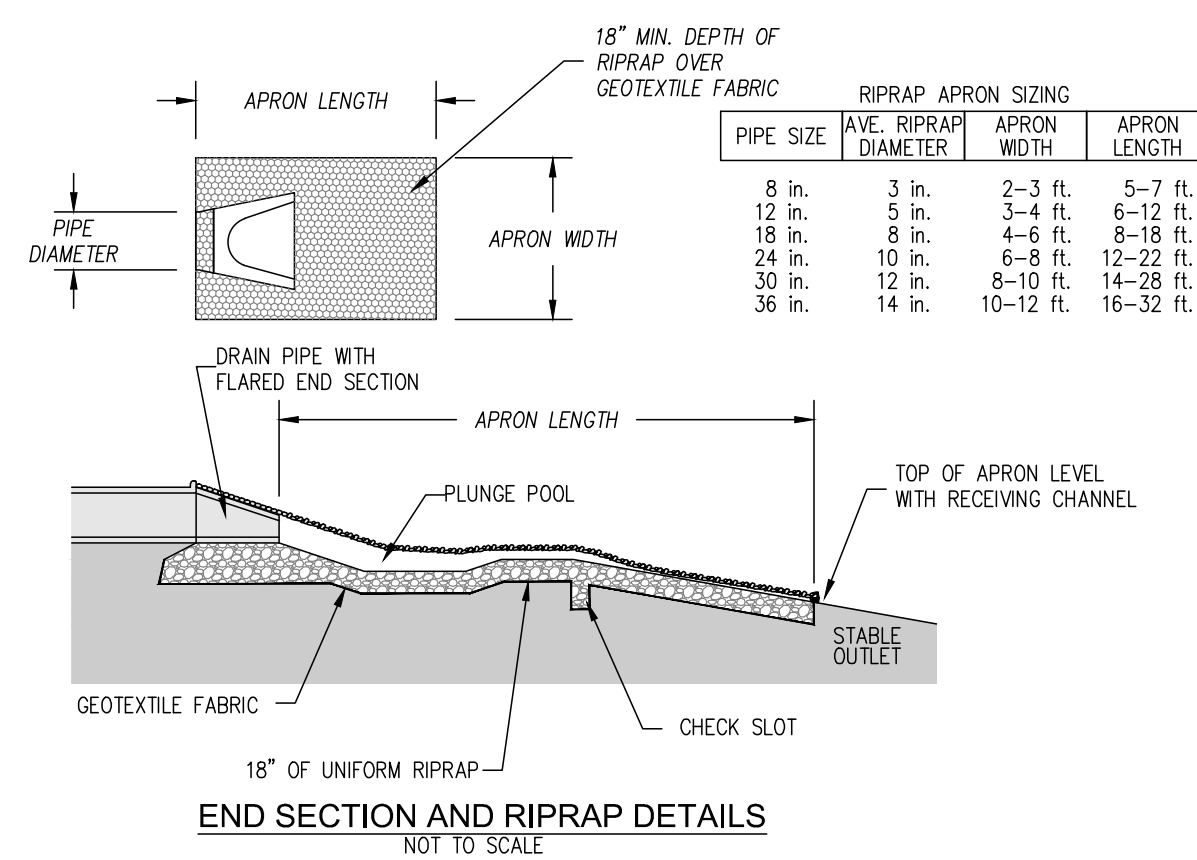
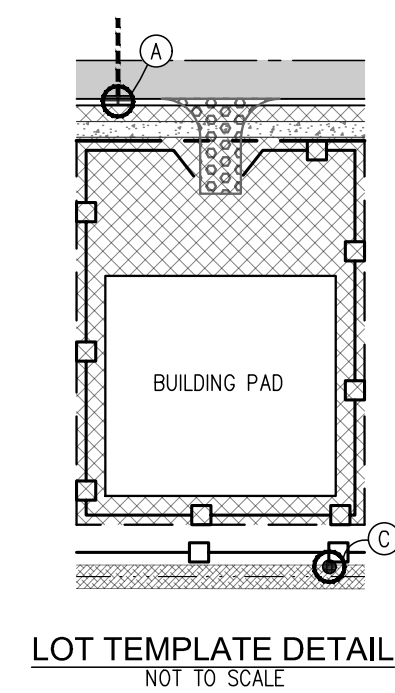
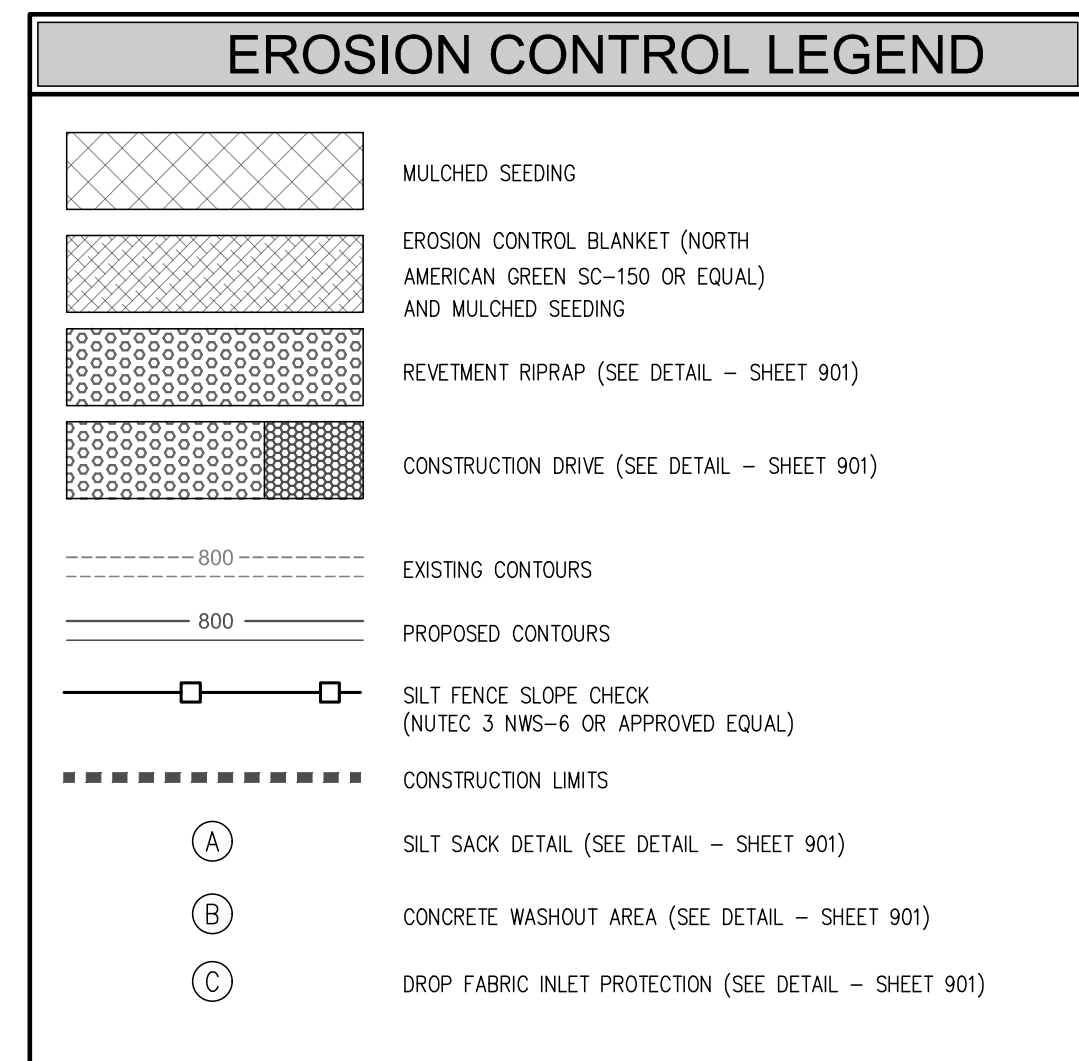
Gregory J. Ilic

NO.	DATE	BY	APPR.	REVISIONS
1				
2				
3				
4				
5				
6				
7				
8				



SEE SHEET 902 FOR
EROSION CONTROL
DETAILS AND NOTES

THESE PLANS ARE BASED UPON INFORMATION FROM AN ALTA/ACSM LAND TITLE SURVEY PERFORMED BY CKW LAND SURVEYING, INC. WITH WORK ORDER NO. 130100 AND DATED JUNE 7, 2013 AND SURVEY INFORMATION PROVIDED BY JERRY WIGGINS SURVEYING.



EARTHWORK

- SCOPE OF WORK
- A. EXIST: THE WORK REQUIRED UNDER THIS SECTION CONSISTS OF ALL EXCAVATING, FILLING, ROUGH GRADING AND RELATED ITEMS NECESSARY TO COMPLETE THE WORK INDICATED ON THE DRAWINGS AND DESCRIBED IN THE SPECIFICATIONS. THE CONTRACTOR SHALL NOTIFY IN WRITING THE OWNER AND THE ENGINEER OF ANY CHANGES, ERRORS OR OMISSIONS FOUND ON THE PLANS OR IN THE FIELD, BEFORE WORK IS STARTED OR RESUMED.
1. GENERAL: THE WORK TO BE PERFORMED UNDER THIS SECTION SHALL INCLUDE
- A. CLEARING AND GRUBBING, REMOVAL OF TREES AND STUMPS, STRIPPING AND STORAGE OF TOPSOIL, FILL COMPACTION AND ROUGH GRADING OF ENTIRE SITE. ALL TREES SHALL BE REMOVED UNLESS OTHERWISE NOTED IN PLANS OR DIRECTED BY OWNER.
 - B. EXCAVATED MATERIALS EXCEPT FILL, OBTAINED FROM FILLS, ALL UNSUITABLE MATERIAL AND ALL SURPLUS EXCAVATED MATERIAL, NOT REQUIRED SHALL BE REMOVED FROM THE SITE. THE LOCATION OF DUMP AND LENGTH OF HAUL SHALL BE THE CONTRACTOR'S RESPONSIBILITY.
 - C. PROVIDE AND PLACE ANY ADDITIONAL FILL MATERIAL FROM OFF THE SITE AS MAY BE NECESSARY TO PRODUCE THE GRADES REQUIRED. FILL OBTAINED FROM OFF SITE SHALL BE OF KIND AND QUALITY AS SPECIFIED FOR FILLS HEREIN AND THE SOURCE APPROVED BY THE OWNER.
 - D. THE CONTRACTOR SHALL ACCEPT THE SITE AS HE FINDS IT AND SHALL REMOVE ALL TRASH, RUBBISH AND DEBRIS FROM THE SITE PRIOR TO STARTING EXCAVATION
2. BENCHMARK
- A. MAINTAIN CAREFULLY ALL BENCH MARKS, MONUMENTS AND OTHER REFERENCE POINTS; IF DISTURBED OR DESTROYED, CONTRACTOR SHALL CONTACT ENGINEER.
3. REMOVAL OF TREES
- A. THE INTEGRITY OF THE TOPOGRAPHIC FEATURES (INCLUDING TREES) SHALL BE PRESERVED AS MUCH AS POSSIBLE. THE CONTRACTOR SHALL COORDINATE WITH OWNER AND/OR ENGINEER PRIOR TO CLEARING TREES FOR CONSTRUCTION.
 - B. ALL BRUSH, STUMPS, WOOD AND OTHER REFUSE FROM THE TREES REMOVED SHALL BE HAULED TO DISPOSAL AREAS DESIGNATED FOR THE SITE. DISPOSAL BY BURNING SHALL NOT BE PERMITTED UNLESS PROPER PERMITS ARE OBTAINED (WHERE APPLICABLE).
4. HANDLING OF TOPSOIL
- A. REMOVE ALL ORGANIC MATERIAL FROM THE AREAS TO BE OCCUPIED BY BUILDINGS, ROADS, WALKS AND PARKING AREAS. PILE AND STORE TOPSOIL AT A LOCATION WHERE IT WILL NOT INTERFERE WITH CONSTRUCTION OPERATIONS. TOPSOIL SHALL BE REASONABLE FREE FROM SUBSOIL, DEBRIS, WEEDS, GRASS STONES, ETC.
 - B. AFTER COMPLETION OF SITE GRADING AND SUBSURFACE UTILITY INSTALLATION, TOPSOIL SHALL BE REPLACED IN AREAS DESIGNATED ON THE EROSION CONTROL PLAN FOR SEEDING AND/OR SODDING. ANY REMAINING TOPSOIL SHALL BE USED FOR FINISHED GRADING AROUND STRUCTURES AND LANDSCAPING AREAS.
5. DISPOSITION OF UTILITIES
- A. RULES AND REGULATIONS GOVERNING THE RESPECTIVE UTILITIES SHALL BE OBSERVED IN EXECUTING ALL WORK UNDER THIS SECTION.
 - B. IF ANE UTILITY IS ENCOUNTERED BUT NOT SHOWN ON THE DRAWINGS, THE ENGINEER SHALL BE ADVISED BEFORE WORK IS CONTINUED.
 - C. INACTIVE AND ABANDONED UTILITIES ENCOUNTERED IN EXCAVATING AND GRADING OPERATIONS SHALL BE REPORTED TO THE ENGINEER. THEY SHALL BE REMOVED, PLUGGED OR CAPPED AS DIRECTED BY THE OWNER OR COMPANY OR AS ENGINEERED.
 - D. IT SHALL BE THE RESPONSIBILITY OF EACH CONTRACTOR TO VERIFY ALL EXISTING UTILITIES AND CONDITIONS PERTAINING TO HIS PHASE OF THE WORK. IT SHALL ALSO BE THE CONTRACTOR'S RESPONSIBILITY TO CONTACT THE OWNERS OF THE VARIOUS UTILITIES BEFORE WORK IS STARTED.
6. SITE GRADING
- A. GRADES: CONTRACTOR SHALL PERFORM ALL CUTTING, FILLING, COMPACTING OF FILLS AND ROUGH GRADING REQUIRED TO BRING ENTIRE PROJECT AREA TO GRADE AS SHOWN ON THE DRAWINGS.
 - B. ROUGH GRADING: THE TOLERANCE FOR PAVED AREAS SHALL NOT EXCEED 0.10 FEET PLUS OR MINUS ABOUT THE ESTABLISHED GRADE. THE TOLERANCE FOR UNPAVED AREAS SHALL NOT EXCEED 0.15 FEET PLUS OR MINUS ABOUT THE ESTABLISHED GRADE. ALL BANKS AND CUTS BENEATH IN GRADE SHALL BE ROUNDED AT THE TOP AND BOTTOM.
- C. COMPACTION REQUIREMENTS:
- 1. ALL BUILDING PAD AREAS SHALL BE COMPACTED TO STANDARDS SPECIFIED BY LOCAL AND/OR STATE BUILDING CODES.
 - 2. COMPACTION REQUIREMENTS OF PAVED AREAS SHALL BE 95% OF MAXIMUM DRY DENSITY.
7. EARTH WORK BALANCE
- A. THE CONTRACTOR SHALL CONFIRM ALL EARTHWORK QUANTITIES PRIOR TO START OF CONSTRUCTION. IF AN EXCESS OR SHORTAGE OF EARTH IS ENCOUNTERED, THE CONTRACTOR SHALL CONFIRM WITH THE OWNER AND ENGINEER THE REQUIREMENTS FOR STOCKPILING, REMOVAL OR IMPORTING OF EARTH.

MINOR ADJUSTMENTS TO THE GRADES MAY BE REQUIRED TO EARTHWORK BALANCES WHEN MINOR EXCESS MATERIAL OR SHORTAGES ARE ENCOUNTERED. IT IS RECOGNIZED BY THE PARTIES HERETO THAT THE CALCULATIONS OF THE EARTHWORKS IN ACCORDANCE WITH THE AMERICAN SOCIETY OF CIVIL ENGINEERS' STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, LATEST EDITION, ARE SUBSTANTIAL. UNANTICIPATED VARIATIONS FOR SUCH CONDITIONS, SUCH AS THE PHYSICAL LIMITS IN FINISH GRADE AND COMPACTATION PERMITTED THE CONTRACTOR, AND THAT ALL OF THESE PARAMETERS MAY CAUSE EITHER AN EXCESS OR SHORTAGE OF ACTUAL EARTHWORK MATERIALS TO COMPLETE THE PROJECT. IF SUCH AN ACTUAL EXCESS OR SHORTAGE OF ACTUAL EARTHWORK MATERIALS OCCURS, THE CONTRACTOR SHALL CONTACT THE ENGINEER TO DETERMINE IF ADJUSTMENTS CAN BE MADE TO CORRECT THE IMBALANCE IN EARTH.

STREETS

- SCOPE OF WORK
- A. THE WORK REQUIRED UNDER THIS SECTION INCLUDES ALL CONCRETE AND BITUMINOUS PAVING AND RELATED ITEMS NECESSARY TO COMPLETE THE WORK INDICATED ON THE DRAWINGS AND DESCRIBED IN THE SPECIFICATIONS, INCLUDING BUT NOT LIMITED TO:
1. ALL STREETS, PARKING AREAS WITHIN THE CONTRACT LIMITS.
 2. CURBS AND CONCRETE RAMPS.
 3. SIDEWALKS AND CONCRETE SLABS.
 4. THE CASE OF ANY CONFLICTS WITH THESE SPECIFICATIONS AND LOCAL, STATE, FEDERAL SPECIFICATIONS THE MORE STRINGENT SHALL APPLY.
 - B. IN THE CASE OF ANY CONFLICTS WITH THESE SPECIFICATIONS AND LOCAL, STATE, FEDERAL SPECIFICATIONS THE MORE STRINGENT SHALL APPLY.
2. PAVEMENT CONSTRUCTION
- A. ALL STREET CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS AND CONFORM TO THE MINIMUM STANDARDS OF THE CITY OF FRANKLIN AND ENGINEERING DEPARTMENTS, AND IF THERE ARE AREAS UNDEFINED USE THE CURRENT I.N.D.O.T. STANDARDS SPECIFICATIONS, AS REVISED.
- B. FLEXIBLE PAVEMENT
1. MATERIALS
 - A. GENERAL: USE LOCALLY AVAILABLE MATERIALS AND GRADATIONS WHICH EXHIBIT A SATISFACTORY RECORD OF PREVIOUS INSTALLATIONS.
 - B. COMPACTED AGGREGATE: BASE: SOUND, ANGULAR, CRUSHED LESTONE, CRUSHED OR UNCRUSHED GRAVEL, OR CRUSHED OR AGGREGATE AIR-CURED BLAST FURNACE SLAC. COURSE AGGREGATE SHALL BE CLASS A, TYPE "0" AND CONFORM TO I.N.D.O.T. STANDARD SPECIFICATIONS SECTION 903.
 - C. BASE COURT AGGREGATE: SOUND, ANGULAR CRUSHED STONE, CRUSHED OR UNCRUSHED GRAVEL, OR CRUSHED SLAC, SAND, STONE, OR SLAC SCREENINGS. COURSE AGGREGATES SHALL BE CLASS A OR B AND CONFORM TO I.N.D.O.T. STANDARDS SPECIFICATIONS SECTION 903.
 - D. COURSE AGGREGATE FOR SURFACE AND BINDER MIXTURES: CRUSHED STONE, CRUSHED GRAVEL, CRUSHED SLAC, AND SHARP EDGE NATURAL SAND. SURFACE COURSE AGGREGATES SHALL BE CLASS A AND CONFORM TO I.N.D.O.T. STANDARD SPECIFICATIONS SECTION 903.
 - E. ASPHALT CEMENT: PETROLEUM ASPHALT CEMENT, AP 5 WITH PENETRATION OF 60-70 OR VISCOSITY GRADED ASPHALT CEMENT AC-20 CONFORMING TO I.N.D.O.T. STANDARD SPECIFICATIONS SECTION 903.
 - F. PRIME COAT: MEDICAL GRADE LIQUID ASPHALT OR ASPHALT EMULSION CONFORMING TO I.N.D.O.T. STANDARD SPECIFICATIONS SECTION 408.
 - G. TACK COAT: RAPID-CURE LIQUID ASPHALT OR ASPHALT EMULSION CONFORMING TO I.N.D.O.T. STANDARD SPECIFICATIONS SECTION 409.
 - H. LANE MARKING PAINT: CHLORINATED RUBBER-ALKYL TYPE, AASHTO M248 (FS TT-P-115), TYPE III.
3. ASPHALT-AGGREGATE MIXTURE
- ALL BITUMINOUS MIXTURES ARE TO CONFORM TO CURRENT I.N.D.O.T. SPECIFICATIONS
- A. SURFACE COURSE: HMA SURFACE 1.5"min
 - B. BINDER COURSE: HMA INTERMEDIATE 1.9"min
 - C. BASE COURSE: TYPE: HMA BASE 2.5"min
- *PROVIDED A JOB MIX FORMULA FOR EACH TYPE OF ASPHALT PRIOR TO THE BEGINNING OF THE CONSTRUCTION PROJECT.
4. SURFACE PREPARATION
- A. REMOVE LOOSE MATERIAL FROM COMPACTED SUBGRADE SURFACE IMMEDIATELY BEFORE APPLYING PRIME COAT
- 1) PROOF ROLL SUBGRADE SURFACE WITH LOADED TRI-AXLE TRUCK (48 HOUR NOTICE IS REQUIRED TO BE GIVEN TO THE CITY OF FRANKLIN ENGINEERING DEPT.) TO CHECK FOR UNSTABLE AREAS AND AREAS REQUIRING ADDITIONAL COMPACTION. IF PROOF ROLL EXCEEDS MAXIMUM $\frac{1}{4}$ " DEFLECTION, CONTRACTOR SHALL COORDINATE WITH ENGINEER AND CITY OF FRANKLIN TO DETERMINE IF SUBGRADE STABILIZATION IS REQUIRED.
 - 2) NOTIFY CONTRACTOR OF UNSATISFACTORY CONDITIONS. DO NOT BEGIN PAVING WORK UNTIL DEFICIENT SUBGRADE AREAS HAVE BEEN CORRECTED AND ARE READY TO RECEIVE PAVING.
- B. AGGREGATE BASE: AFTER PLACEMENT, PROOF ROLL COMPACTED AGGREGATE BASE SURFACE TO CHECK FOR UNSTABLE AREAS REQUIRING ADDITIONAL COMPACTION.
- 1) NOTIFY CONTRACTOR OF UNSATISFACTORY CONDITIONS. DO NOT BEGIN PAVING WORK UNTIL DEFICIENT AGGREGATE BASE AREAS HAVE BEEN CORRECTED AND ARE READY TO RECEIVE PAVING.
- C. REMOVE LOOSE MATERIAL FROM COMPACTED AGGREGATE BASE SURFACE IMMEDIATELY BEFORE APPLYING PRIME COAT.
5. PLACING THE MIX
- A. GENERAL: PLACE BITUMINOUS AGGREGATE MIXTURE ON PREPARED SURFACE, SPREAD AND STRIKE-OFF. SPREAD MIXTURE AT MINIMUM TEMPERATURE OF 225 DEGREES F.(107 DEGREES C), PLACE IN MODERATE AND SMALL AREAS BY HAND. PLACE EACH COURSE TO REQUIRED GRADE, CROSS-SECTION, AND COMPACTED THICKNESS.
- B. BASE COURSE, COMPACTED AGGREGATE: SPREAD AND COMPACT IN TWO LIFTS AS FOLLOWS:
- 1) FIRST LIFT: NO. 53'S SHALL BE A MINIMUM OF $\frac{1}{4}$ " OR $\frac{1}{2}$ " THE TOTAL DEPTH OF AGGREGATE. EXTEND THE FIRST LIFT $\frac{1}{4}$ " OR A DISTANCE EQUAL TO THE DEPTH OF THE LIFT BEYOND THE SECOND LIFT.
 - 2) SECOND LIFT: SIZE NO. 53
- C. PRIME COAT: SUBGRADE SURFACE SHALL BE PRIMED IN ACCORDANCE WITH THE APPLICABLE REQUIREMENTS OF SECTIONS 408 OR I.N.D.O.T. STANDARD SPECIFICATIONS.
- D. HOT ASPHALT CONCRETE BINDER COURSE: SPREAD AND ROLL TO MINIMUM FINISH DEPTHS INDICATED ON DETAILS.
- E. TACK COAT: BINDER COURSE SHALL BE TACKED PRIOR TO THE INSTALLATION OF THE SURFACE COURSE IN ACCORDANCE WITH THE APPLICABLE REQUIREMENTS OF SECTION 409 OF I.N.D.O.T. STANDARD SPECIFICATIONS.

- SURFACE COURSE: SPREAD AND ROLL TO MINIMUM FINISH DEPTH INDICATED ON DETAILS. FINISH-ELEVATION SHALL BE TRUE TO LINE AND GRADE WITHIN $\frac{1}{8}$ " OF TRUE ELEVATIONS.
- G. PAVING PLACING: PLACE IN STRIPS NOT LESS THAN 10' WIDE, UNLESS OTHERWISE ACCEPTABLE TO THE ENGINEER. STRIPS SHALL BE PLACED IN A CONTINUOUS MANNER, WITH MINIMUM JOINTS. JOINTS SHALL EXCEED PREVIOUS ROLLING, COMPLETE BINDER COURSE FOR A SECTION BEFORE PLACING SURFACE COURSE.
- H. JOINTS: MAKE JOINTS BETWEEN OLD AND NEW PAVEMENTS, OR BETWEEN PAVIR PASSES, OR BETWEEN SURFACES, AND AFTER FIRST COAT HAS BEEN PLACED AND ROLLED, PLACE JOINTS TO HAVE SAME TEXTURE, DENSITY AND SMOOTHNESS AS OTHER SECTIONS. CLEAN CONTACT SURFACES AND APPLY TACK COAT.
- II. GENERAL: BEGON ROLLING WHEN MIXTURE WILL BEAR ROLLER WITHOUT EXCESSIVE DISPLACEMENT.
- A. COMPACT MIXTURE WITH HOT HAND TAMPERS OR VIBRATING PLATE COMPACTORS IN AREAS INACCESSIBLE TO ROLLERS.
- B. BREAKDOWN ROLLING: ACCOMPLISH BREAKDOWN OR INITIAL ROLLING IMMEDIATELY FOLLOWING ROLLING OF JOINTS AND OUTSIDE EDGES. CHECK SURFACE AFTER BREAKDOWN ROLLING, AND REPAIR DISPLACED AREAS BY LOOSENING AND FILLING, IF REQUIRED, WITH HOT MATERIAL.
- C. SECOND ROLLING: FOLLOW BREAKDOWN ROLLING AS SOON AS POSSIBLE, WHICH MIXTURE IS HOT.
- D. THIRD ROLLING: SECOND ROLLING UNTIL MIXTURE HAS BEEN THOROUGHLY COMPACTED.
- E. FINISH ROLLING: PERIODS TO EXCEED 15 MINUTES WHILE MIXTURE IS STILL WARM ENOUGH FOR REMOVAL OF ROLLER MARKS. CONTINUE ROLLING UNTIL ROLLER MARKS ARE ELIMINATED AND COURSE HAS ATTAINED MAXIMUM DENSITY.
- F. PATCHING: REMOVE AND REPLACE PAVING AREAS MIXED WITH FOREIGN MATERIALS AND DEFECTIVE AREAS. PATCHING SHALL BE DONE WITH FRESH HOT BITUMINOUS AGGREGATE MIX. COMPACT BY ROLLING TO MAXIMUM SURFACE DENSITY AND SMOOTHNESS.
- G. PROTECTION: AFTER FINAL ROLLING, DO NOT PERMIT VEHICULAR TRAFFIC ON PAVEMENT UNTIL IT HAS COOLED AND HARDENED.
- H. EROSION: MEANS TO PROTECT PAVING FROM TRAFFIC UNTIL MIXTURE HAS COOLED ENOUGH NOT TO BECOME MARKED.
- III. LANE MARKINGS
- A. CLEANING: SWEEP AND CLEAN SURFACE TO ELIMINATE LOOSE MATERIAL AND DUST.
- B. STRIPING: USE CHLORINATED RUBBER BASE TRAFFIC LANE-MARKING PAINT, FACTORY MIXED, QUICK-DRYING, AND NON-FLUORIC.
- C. COLE: YELLOW
- D. DO NOT APPLY TRAFFIC AND LANE MARKING PAINT UNTIL LAYOUT AND PLACEMENT HAS BEEN COMPLETED BY ARCHITECT/ENGINEER.
- E. APPLY PAINT WITH MECHANICAL EQUIPMENT TO PRODUCE UNIFORM STRAIGHT EDGES. APPLY IN TWO COATS AT MANUFACTURER'S RECOMMENDED RATES.
- QUALITY CONTROL
- A. TESTING AND INSPECTION SERVICE:
- 1) CHINESE SHALL EMPLOY TESTING LABORATORY TO PERFORM PAVEMENT TESTING AND INSPECTION SERVICE FOR QUALITY CONTROL DURING PAVING OPERATIONS.
- 2) TESTING SERVICE SHALL HAVE REPRESENTATIVE PRESENT TO OBSERVE AND PERFORM TESTS AT ALL TIMES PAVING WORK IS IN PROGRESS.
- B. GENERAL TESTING AND INSPECTION SERVICE SHALL TAKE A MINIMUM OF TWO SAMPLES PER LOT OF BITUMINOUS AGGREGATE MIX EACH DAY BEFORE PAVING OPERATION. LABORATORY TEST SHALL BE PERFORMED ON THESE SAMPLES TO DETERMINE AGGREGATE GRADATION AND ASPHALT CONTENT.
- 1) TEST IN-PLACE COMPACTED BITUMINOUS AGGREGATE MIX COURSES FOR COMPLIANCE WITH REQUIRED FRACTION THICKNESS, DENSITY AND SURFACE SMOOTHNESS. REPAIR OR REMOVE AND REPLACE IN-PLACE PAVING AS DIRECTED BY ENGINEER.
- 2) A TEST SECTION AT A MINIMUM SIZE OF 100'x12' SHALL BE PLACED AT A LOCATION AS DIRECTED BY THE COUNTY PRIOR TO FULL PRODUCTION FOR EACH TYPE OF MIX. THE TEST SECTION SHALL BE COMPACTED TO DETERMINE A TARGET DENSITY FOR THE REMAINDER OF THE PAVEMENT.
- C. THICKNESS: IN-PLACE COMPACTED THICKNESS WILL NOT BE ACCEPTABLE IF EXCEEDING FOLLOWING ALLOWABLE VARIATION FROM REQUIRED THICKNESS:
- AGGREGATE BASE COURSE: $\frac{1}{2}$ " PLUS OR MINUS
BASE COURSE: $\frac{1}{4}$ " PLUS OR MINUS
BINDER COURSE: $\frac{1}{4}$ " PLUS OR MINUS
SURFACE COURSE: $\frac{1}{4}$ " PLUS OR MINUS
- 1) A MINIMUM OF TWO PAVEMENT CORES PER COMPACTED LIFT SHALL BE TAKEN. CORES ARE TO BE TAKEN AT LOCATIONS AND AT TIMES OF DAY AS DIRECTED BY THE TESTING SERVICE. THE FOLLOWING TESTS SHALL BE PERFORMED BY THE TESTING SERVICE, ON EACH PAVEMENT SECTION:
- 2) A MINIMUM SIZE OF 100'x12' SHALL BE PLACED AT A LOCATION AS DIRECTED BY THE COUNTY PRIOR TO FULL PRODUCTION FOR EACH TYPE OF MIX. THE TEST SECTION SHALL BE COMPACTED TO DETERMINE A TARGET DENSITY OF THE REMAINDER OF THE PAVEMENT.

STORM SEWER SYSTEMS

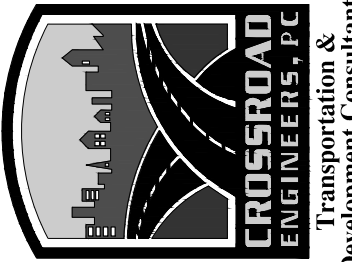
1. SCOPE OF WORK
A. THE FIRST SECTION INCLUDES ALL STORM SEWERS, STORM WATER INLETS, AND RELATED ITEMS, INCLUDING EXCAVATING AND BACKFILLING NECESSARY TO COMPLETE THE WORK SHOWN ON THE DRAWINGS.
B. IN THE CASE OF ANY CONFLICTS WITH THESE SPECIFICATIONS AND LOCAL, STATE, FEDERAL SPECIFICATIONS OR ORDINANCES, THE LATTER SHALL APPLY.
2. STORM SEWER CONSTRUCTION
A. STORM SEWERS
1. STORM SEWER STRUCTURES SHALL COMPLY WITH CURRENT SPECIFICATIONS OF THE CITY OF FRANKLIN, MASSACHUSETTS AND ALL OTHER RESPONSIBLE AGENCIES IN RESPECT TO DESIGN AND QUALITY OF CONSTRUCTION.
2. ALL STORM SEWER CONSTRUCTION INSIDE PUBLIC RIGHT-OF-WAY, EITHER EXISTING OR TO BE DEDICATED, SHALL BE IN ACCORDANCE WITH THE MOST CURRENT I.N.D.T. STANDARD SPECIFICATION.
3. WHERE REINFORCED CONCRETE PIPE IS SHOWN ON THE CONSTRUCTION PLANS, IT SHALL BE IN ACCORDANCE WITH A.S.T.M. C-76 CLASS III WALL "B" UNLESS OTHERWISE SPECIFIED ON THE PLANS.
4. WHEN CORRUGATED METAL PIPE IS SHOWN ON THE CONSTRUCTION PLANS, IT SHALL BE 14 GAUGE ALUMINIZED UNLESS OTHERWISE SPECIFIED AND SHALL HAVE THE CONNECTING BANDS AND SEALS AS SPECIFIED BY THE MANUFACTURER. C.M.P. SHALL BE ALUMINIZED PIPE IN ACCORDANCE WITH A.S.T.M. A-408.
5. MANHOLES, CATCH BASINS AND INLETS SHALL BE PRECAST CONCRETE. USE OF BRICK OR BLOCK WILL NOT BE PERMITTED UNLESS AUTHORIZED IN WRITING BY THE ENGINEER AND APPROVED IN WRITING BY THE FRANKLIN PUBLIC WORKS DEPARTMENT.
6. WHEN THE CONTRACTOR ELECTS TO USE ALTERNATE PRECAST STRUCTURES, HE SHALL SUBMIT SHOP DRAWINGS TO THE ENGINEER PRIOR TO ANY CONSTRUCTION.
7. PRECAST CONCRETE AND STEEL FOR MANHOLES AND INLETS SHALL BE IN ACCORDANCE WITH A.S.T.M. C-478.
8. CASTINGS SHALL BE AS SHOWN ON THE DETAIL SHEET(S) FOR MANUFACTURER, TYPE AND MODEL NUMBER.
9. "B" BORROW BACKFILL SHALL BE REQUIRED UNDER ALL PAVEMENT AREAS AND TRENCHES WITHIN FIVE FEET OF THE EDGE OF PAVEMENT.
10. ALL TRENCHES UNDER PAVEMENT SHALL BE COMPACTED TO 95 PERCENT MODIFIED PROCTOR.

SANITARY SEWER SYSTEMS

- # SCOPE OF WORK
1. THE WORK UNDER SECTION INCLUDES ALL SANITARY SEWERS, MANHOLES, CLEANOUTS AND RELATED ITEMS INCLUDING EXCAVATING AND BACKFILLING NECESSARY TO COMPLETE THE WORK SHOWN IN THE DRAWINGS, STARTING OUTSIDE THE BUILDING WALLS. THE END OF SEWERS SHALL BE TIGHTLY PLUGGED OR CAPPED AT THE TERMINAL POINTS, ADJACENT TO THE BUILDING DRAWN AS SPECIFIED IN THE PLUMBING SPECIFICATIONS AND/OR ARCHITECTURAL DRAWINGS.
- ## 2. MATERIALS
- A. SANITARY SEWERS
1. ALL GRAVITY PLASTIC SEWER PIPE FITTINGS SHALL CONFORM TO ASTM D3334 WITH A CELL CLASSIFICATION OF 1245-B OR 1245-A. FLEXIBLE GASKETED COMPRESSION JOINTS SHALL BE USED FOR PVC & PVC TRUSS PIPE, NO SOLVENT CEMENT JOINTS SHALL BE ALLOWED.
 2. ASSEW SBR PIPE AND FITTINGS SHALL CONFORM TO ASTM D2680 LATEST REVISION.
 3. TRAKER WIRE SHALL BE INSTALLED WITH ALL NEW SANITARY PIPE.
- B. MANHOLES
1. PRECAST REINFORCED CONCRETE MANHOLE SECTIONS AND STEPS SHALL CONFORM TO ASTM C-398.
 2. IN REVISION, THE TOP OF THE MANHOLE SHALL BE WATERPROOFED WITH BITUMATIC MATERIAL.
 3. CASTINGS SHALL BE OF UNIFORM QUALITY, FREE FROM BLOW HOLS, POROSITY, HARD SPOTS, SHRINKAGE DISTORTION OR OTHER DEFECTS. THEY SHALL BE SMOOTH AND WELL-CLEANED BY SHOT-BLASTING OR BY OTHER APPROVED METHOD.
 4. THE MANHOLE SHALL BE COATED WITH AN INERT PLASTIC RESIN PLANT WHICH SHALL RESULT IN A SMOOTH COATING, HIGH AND TENDUOUS WHEN COLD, NOT TACKY, NOT BRITTLE. THEY SHALL BE GRAY IRON MEETING ASTM A-48 LATEST REVISION. MANHOLE COVERS FOR SANITARY SEWER SHALL BE NEEHAH TYPE R-1722 /WR-1712-B-SF FRAME /M-SELF-SLAPPING APPLICATION.
- C. JOINT MANHOLE
1. JOINT MANHOLE SHALL BE 12 INCH DIA. MANHOLE, 3/4 INCH SIZE BUTYL RUBBER GASKET MATERIAL, CONFORMING TO ASHTO M-198 AND FEDERAL SPECIFICATION SS-210A. JOINTS ARE TO CONFORM TO ASTM C-443.
 2. JOINT MANHOLE SHALL INCLUDE STEPS. SANITARY SEWER STANDARDS REQUIRE THAT THAT STEPS ARE TO BE POLYPROPYLENE COATED STEEL REINFORCING OR AN APPROVED NON-CORROSIVE FIBERGLASS MATERIAL. THE COPOLYMER POLYPROPYLENE SHALL MEET THE REQUIREMENTS OF ASTM-4101 WITH DEFORMED 3/8 INCH DIAMETER OR LARGER REINFORCING STEEL CONFORMING TO ASTM A-615, GRADE 60. STEPS SHALL BE A MAXIMUM OF 24 INCHES FROM TOP, 24 INCHES FROM BOTTOM AND 16 INCHES SPACING BETWEEN.
- D. SANITARY SEWER MAINS
1. SANITARY SEWER FORCE MAIN PIPE AND FITTINGS SHALL CONFORM TO ASTM D2241, STANDARD SPECIFICATION FOR POLY VINYL CHLORIDE (PVC) PRESSURE-RATED PIPE, (SOR 21, GREATER THAN 4 INCH DIAMETER).
 2. TRAKER WIRE SHALL BE INSTALLED WITH ALL SANITARY SEWER MAIN PIPE.
- E. CASING
1. SANITARY SEWERS CONSTRUCTED WITH POLYVINYL CHLORIDE (PVC) AND INSTALLED UNDER RAILROADS SHALL BE CEASED IN CONFORMANCE WITH AWWA STANDARD C900-89, STANDARD FOR POLYVINYL CHLORIDE (PVC) PRESSURE PIPE, 4 IN. THROUGH 12 IN. FOR WATER DISTRIBUTION, APPENDIX A.
- ## 3. APPLICATION
- A. PERMITS AND CODES:
- THE INTENT OF THIS SECTION OF THE SPECIFICATIONS IS THAT THE CONTRACTOR'S BID ON THE WORK SHALL BE OPEN SHOWN SHOWN UPON THE DRAWINGS AND SPECIFICATIONS BUT THAT THE WORK SHALL COMPLY WITH ALL APPLICABLE CODES AND REGULATIONS AS AMENDED BY ANY WAIVERS. CONTRACTOR SHALL FURNISH ALL BONDS NECESSARY TO GET PERMITS FOR CUTS AND CONNECTIONS TO EXISTING SEWERS.
- B. STANDARDS:
- THE TERM "LOCAL STANDARDS" AS USED HEREIN MEANS THE STANDARDS OF DESIGN AND CONSTRUCTION OF THE RESPECTIVE MUNICIPAL DEPARTMENT OR UTILITY COMPANY.
- C. EXISTING IMPROVEMENTS:
- THE CONTRACTOR SHALL MAINTAIN IN OPERATING CONDITION ALL ACTIVE UTILITIES, SEWERS AND OTHER DRAINS ENCOUNTERED IN THE SEWER INSTALLATION. THE CONTRACTOR SHALL REPAIR TO THE SATISFACTION OF THE OWNER ANY DAMAGE TO EXISTING ACTIVE IMPROVEMENTS.
- D. WORKMANSHIP:
- THIS WORK SHALL CONFORM TO ALL LOCAL, STATE AND NATIONAL CODES AND TO BE APPROVED BY ALL LOCAL AND STATE AGENCIES HAVING JURISDICTION.
- E. TRENCHING:
- LAY ALL PIPE IN OPEN TRENCHES, EXCEPT WHEN THE LOCAL AUTHORITY GIVES WRITTEN PERMISSION FOR TUNNELING, OPEN THE TRENCH SUFFICIENTLY AHEAD OF PIPE-LAYING TO REVEAL ANY OBSTRUCTIONS. THE MIN. WIDTH OF TRENCH SHALL BE 1-1/2 TIMES THE OUTSIDE DIA. PLUS 12 INCHES. SHEET AND BRACK TRENCH SHALL BE NECESSARY TO PROTECT WORKMEN AND ADJACENT STRUCTURES. ALL TRENCHING TO COMPLY WITH OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION STANDARDS. KEEP TRENCHES FREE FROM WATER WHILE CONSTRUCTION IS IN PROGRESS. UNDER NO CIRCUMSTANCES SHALL PIPE OR APPURTENANCES BE LAID IN WATER. CONDUCT THE DISCHARGE FROM TRENCH DE-WATERING TO DRAINS OR NATURAL DRAINAGE CHANNELS.
- F. SPECIAL SUPPORTS:
- IF, IN THE OPINION OF THE ENGINEER, THE SOIL AT OR BELOW THE PIPE GRADE IS UNSUITABLE FOR SUPPORTING SEWERS AND APPURTENANCES SPECIFIED IN THIS SECTION, SUCH SPECIAL SUPPORT, IN ADDITION TO THOSE SHOWN OR SPECIFIED, SHALL BE PROVIDED AS THE ENGINEER MAY DIRECT, AND THE CONTRACT WILL BE ADJUSTED.
- G. BACKFILLING:

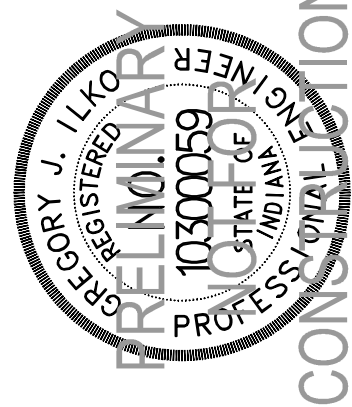
WATER LINE SYSTEM

- SCOPE OF WORK**
- A. THE WORK UNDER THIS SECTION INCLUDES ALL WATER MAIN, FIRE HYDRANTS, SERVICES AND RELATED ITEMS, INCLUDING EXCAVATING AND BACKFILLING NECESSARY TO COMPLETE THE WORK SHOWN ON THE DRAWINGS.
- MATERIALS**
- A. ALL MATERIALS SHALL CONFORM TO ALL LOCAL, STATE, AND NATIONAL CODES AND SHALL BE APPROVED BY ALL LOCAL AND STATE AGENCIES HAVING JURISDICTION. ALL C-90 PVC WATER MAIN SHALL BE DR-14 CLASSIFICATION.
- APPLICATION**
- A. PERMITS AND CODES: THE INTENT OF THIS SECTION OF THE SPECIFICATIONS IS THAT THE CONTRACTOR'S BID ON THE WORK COVERED HEREIN SHALL BE BASED UPON THE DRAWINGS AND SPECIFICATIONS BUT THAT THE WORK SHALL COMPLY WITH ALL APPLICABLE CODES AND REGULATIONS AS AMENDED BY ANY WAIVERS. THE CONTRACTOR SHALL FURNISH ALL BONDS NECESSARY TO GET PERMITS FOR CUTS AND CONNECTIONS TO EXISTING WATER MAINS.
- B. LOCAL STANDARDS: THE TERM "LOCAL STANDARDS" AS USED HEREIN MEANS THE STANDARDS OF DESIGN AND CONSTRUCTION OF THE RESPECTIVE MUNICIPAL DEPARTMENT OR UTILITY COMPANY.
- C. WORKING CONDITIONS: THE CONTRACTOR SHALL MAINTAIN IN OPERATING CONDITION ALL ACTIVE UTILITIES, SEWERS AND OTHER DRAINS ENCOUNTERED IN THE WATER LINE INSTALLATION. THE CONTRACTOR SHALL REPAIR TO THE SATISFACTION OF THE OWNER ANY DAMAGE TO EXISTING ACTIVE IMPROVEMENTS.
- D. WARNING: THIS WORK SHALL BE LIMITED TO ALL LOCAL, STATE AND NATIONAL AGENCIES AND TO BE APPROVED BY ALL LOCAL AND STATE AGENCIES HAVING JURISDICTION. THE CONTRACTOR SHALL FOLLOW ALL REQUIRED CHANGING AND TESTING PROCEDURES REQUIRED BY THE STATE AND LOCAL AGENCIES.
- E. TRENCHING: LAY ALL PIPE IN OPEN TRENCHES, EXCEPT WHEN THE LOCAL AUTHORITY OWES SHIELDED TRENCHING FOR TRENCH PROTECTION. THE CONTRACTOR SHALL BE RESPONSIBLE TO REVEAL ANY OBSTRUCTIONS, THE MIN. WIDTH OF TRENCH SHALL BE 1.25 TIMES THE OUTSIDE DIA. OF PIPE, SHEET PILE AND BRACE TRENCH AS NECESSARY TO PROTECT WORKMEN AND ADJACENT STRUCTURES. ALL TRENCHING TO COMPLY WITH OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION STANDARDS. KEEP TRENCHES FREE FROM OBSTRUCTIONS. WHEN CONSTRUCTION IS IN PROGRESS, UNDER NO CIRCUMSTANCES SHALL PIPE APPURTENANCES BE LAID IN STANDING WATER. CONDUCT THE DISCHARGE FROM TRENCH DE-WATERING TO DRAINS OR NATURAL DRAINAGE CHANNELS.
- F. SOIL CONDITIONS: IF IN THE OPINION OF THE ENGINEER, THE SOIL AT OR BELOW THE PIPE GRADE IS UNSUITABLE FOR SUPPORTING PIPE AND APPURTENANCES SPECIFIED IN THIS SECTION, SUCH SPECIAL SUPPORT, IN ADDITION TO THOSE SHOWN OR SPECIFIED, SHALL BE PROVIDED AS THE ENGINEER MAY DIRECT, AND THE CONTRACT WILL BE ADJUSTED.
- G. BACKFILL: BACKFILL SHALL BE PLACED AS SHOWN IN THE PLANS. NOTE THAT PVC & HDPE PIPE SHALL BE COVERED WITH 12" MINIMUM OF #8 STONE. COMPACT THIS BACKFILL THOROUGHLY, TAKING CARE NOT TO DISTURB THE PIPE. BACKFILL UNDER AND WITHIN 5 FEET OF WALKS, PARKING AREAS, DRIVEWAYS AND STREETS SHALL BE "B" BORROW OR EQUIVALENT GRANULAR MATERIAL ONLY AND THOROUGHLY COMPACTED BY ROLLING AND METHOD.
- H. UTILITIES: IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY ALL EXISTING UTILITIES AND CONDITIONS PERTAINING TO THIS WORK. IT SHALL ALSO BE THE CONTRACTOR'S RESPONSIBILITY TO CONTACT THE OWNERS OF THE VARIOUS UTILITIES BEFORE WORK IS STARTED. THE CONTRACTOR SHALL NOTIFY IN WRITING THE OWNER AND ALL AGENCIES HAVING JURISDICTION OF ANY CUTS, ERRORS OR OMISSIONS FOUND IN THESE PLANS OR IN THE FIELD BEFORE WORK IS STARTED OR RESUMED.

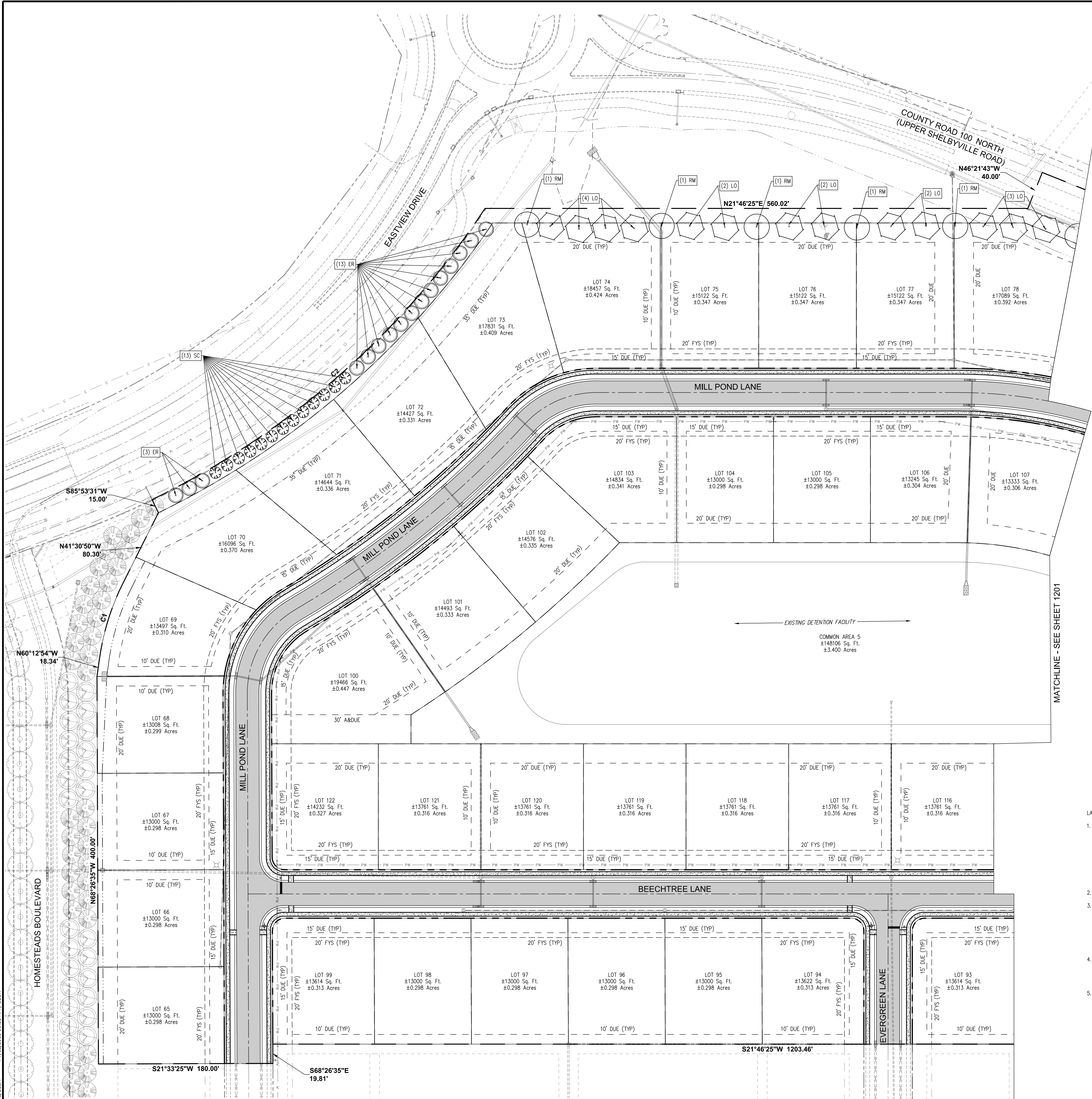


SPECIFICATIONS

	DATE	DRAWN	CHECKED	TITLE
HOMESTEADS AT HILLVIEW - SECTION 3				

[illegible]

DIRECTORY PATH : R:\Active\John Grimmer\Hillview CC Property\CAD\Phase 3 - Plans
DATE/USER : 7/12/2018 11:53 AM / LCOX



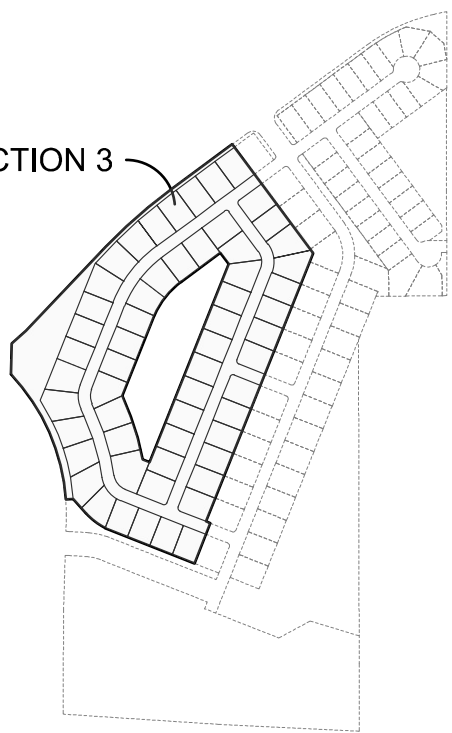
LANDSCAPE NOTES:

- THE GENERAL CONTRACTOR IS RESPONSIBLE FOR REMOVING ALL VEGETATION AND LEAVING ALL LANDSCAPE AREAS AT TWO INCHES BELOW FINAL GRADE, EXCEPT FOR THE DETENTION POND AREA; GENERAL CONTRACTOR IS RESPONSIBLE FOR BRINGING THE POND AREA TO FINAL GRADE. THE LANDSCAPE CONTRACTOR WILL PROVIDE AND SPREAD A COMPACTED TWO INCH DEPTH OF LOAMY TOPSOIL IN ALL TURF AREAS - BRINGING THESE AREAS TO TOP OF CURB/FINAL GRADE (COMPACTED). THE LANDSCAPE CONTRACTOR WILL PROVIDE AND INSTALL A FOUR INCH DEPTH OF PLANTING MIX TO ALL PLANTING BEDS - CROWNING FOR PROPER DRAINAGE. (SEE SPECIFICATIONS FOR MORE DETAILED INSTRUCTION ON TURF AREA AND PLANTING BED PREPARATION.)
- A THREE INCH DEPTH OF SHREDDED HARDWOOD BARK MULCH WILL BE USED AS A TOPDRESSING FOR ALL PLANTING BEDS AND TREE RINGS.
- LANDSCAPE CONTRACTOR SHALL MAKE OWN PLANT QUANTITY TAKEOFFS USING DRAWINGS, SPECIFICATIONS AND PLANT SCHEDULE. PLANT SCHEDULE REQUIREMENTS (I.E. SPACING) DICTATE, UNLESS OTHERWISE DIRECTED BY THE LANDSCAPE DESIGNER. LANDSCAPE CONTRACTOR TO VERIFY BED MEASUREMENTS AND INSTALL APPROPRIATE QUANTITIES AS GOVERNED BY THE THE PLANT SPACING PER THE SCHEDULE. ENSURE ALL MINIMUM REQUIREMENTS OF THE LOCAL GOVERNING AUTHORITY ARE MET (I.E. MINIMUM PLANT QUANTITIES).
- NO SUBSTITUTIONS OF PLANT MATERIALS WILL BE ALLOWED. IF PLANTS ARE NOT AVAILABLE, THE LANDSCAPE CONTRACTOR SHALL NOTIFY THE LANDSCAPE DESIGNER IN WRITING (VIA PROPER CHANNELS). PLANTS MAY BE INSPECTED AND APPROVED OR REJECTED ON THE JOBSITE BY THE OWNER OR THE OWNER'S REPRESENTATIVE.
- LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR THE LANDSCAPE MAINTENANCE OF THIS PROJECT UNTIL FINAL ACCEPTANCE. TURF AREAS WILL NOT BE ACCEPTED UNTIL THEY AREA AT A MINIMUM OF 1-1/2 INCHES TALL, AND NO BARE AREAS LARGER THAN 12 SQUARE INCHES.

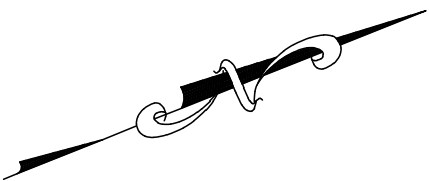
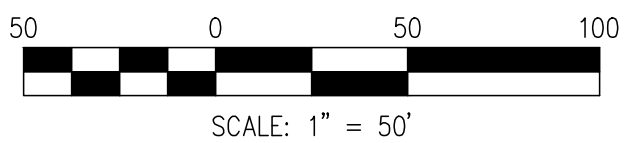
LANDSCAPE LEGEND

- SMALL TREES
- 13 SNOWDRIFT CRABAPPLE [SC]
MALUS 'SNOWDRIFT'
2-1/2" CALIPER
 - 16 EASTERN REDBUD [ER]
CERIS CANADENSIS
2-1/2" CALIPER
- LARGE TREES
- 12 'RED SUNSET' RED MAPLE [RM]
ACER RUBRUM 'RED SUNSET'
2-1/2" CALIPER
 - 31 LAUREL OAK [LO]
QUERCUS HEMISPHAERICA
2-1/2" CALIPER

SECTION 3



KEYMAP
NOT TO SCALE



THESE PLANS ARE BASED UPON INFORMATION FROM AN ALTA/ACSM LAND TITLE SURVEY PERFORMED BY CKW LAND SURVEYING, INC. WITH WORK ORDER NO. 130100 AND DATED JUNE 7, 2013 AND SURVEY INFORMATION PROVIDED BY JERRY WIGGINS SURVEYING.



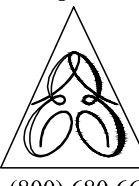
LANDSCAPE PLAN

HOMESTEADS AT HILLVIEW - SECTION 3

JOB NO.	DRAWN	K/LF/LWC	CHECKED	TEN
DATE	JULY 12, 2018	DESIGNED	DJM	APPR.
SHEET	1200			

EVERGREEN
DESIGN GROUP

Landscape Designers & Consultants



1 (800) 680 6630
519 IH-30, Ste 123
Rockwall, TX 75087
www.evergreendesigngroup.net

APPR.

BY

REVISIONS

SHEET

1200



1. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR REMOVING ALL VEGETATION AND LEAVING ALL LANDSCAPE AREAS AT TWO INCHES BELOW FINAL GRADE. THE DESIGNER WILL PROVIDE THE PLANTING SCHEDULE. THE LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR BRINGING THE POND AREA TO FINAL GRADE.
2. THE LANDSCAPE CONTRACTOR WILL PROVIDE AND SPREAD A COMPACTED TWO INCH DEPTH OF TOPSOIL TO THE ENTIRE POND AREA. THE LANDSCAPE CONTRACTOR WILL PROVIDE AND INSTALL A FOUR INCH DEPTH OF PLANTING MAT TO ALL PLANTING AREAS. THE LANDSCAPE CONTRACTOR WILL PROVIDE AND SPREAD MULCH TO BE USED AS A THREE INCH DEPTH OF TURF AREA AND PLANTING BEDS PREPARATION.
3. A DETAIL INSTRUCTION OF SHREDDED HAWKING BARK MULCH WILL BE USED AS A TOPDRESSING FOR ALL PLANTING BEDS AND TREES RINGS.
4. THE LANDSCAPE CONTRACTOR SHALL PROVIDE QUANTITY TAKEOFFS USING DRAWINGS, SPECIFICATIONS AND PLANT SCHEDULE. PLANT SCHEDULE REQUIREMENTS (IE, SPACING) DICTATE, UNLESS OTHERWISE DIRECTED BY THE DESIGNER. THE LANDSCAPE CONTRACTOR SHALL PROVIDE QUANTITIES FOR ALL MEASUREMENTS AND INSTALL APPROPRIATE QUANTITIES AS GOVERNED BY THE PLANT SCHEDULE PER THE CONTRACT. ENSURE ALL MINIMUM REQUIREMENTS FOR ALL LOCAL GOVERNING AGENCIES ARE MET. (MINIMUM PLANT QUANTITIES).
5. NO SUBSTITUTIONS OF PLANT MATERIALS WILL BE ALLOWED. IF PLANTS ARE NOT AVAILABLE, THE LANDSCAPE CONTRACTOR SHALL NOTIFY LANDSCAPE DESIGNER IN WRITING (W/ PROPER CHANNELS). PLANTS MAY BE INSPECTED AND APPROVED OR REJECTED ON THE JOBSITE BY THE OWNER OR THE LANDSCAPE CONTRACTOR.
6. LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR THE LANDSCAPE MAINTENANCE OF THIS PROJECT UNTIL FINAL ACCEPTANCE. TURF AREAS WILL NOT BE ACCEPTED IF THEY ARE NOT MAINTAINED TO A MINIMUM OF 1-1/2 INCHES TALL, AND NO BARE AREAS LARGER THAN 12 SQUARE INCHES.

- LANDSCAPE LEGEND**

SMALL TREES

 - 13 SNOWDRIFT CRABAPPLE [SC]
MALUS 'SNOWDRIFT'
2-1/2" CALIPER
 - 16 EASTERN REDBUD [ER]
CERIS CANADENSIS
2-1/2" CALIPER

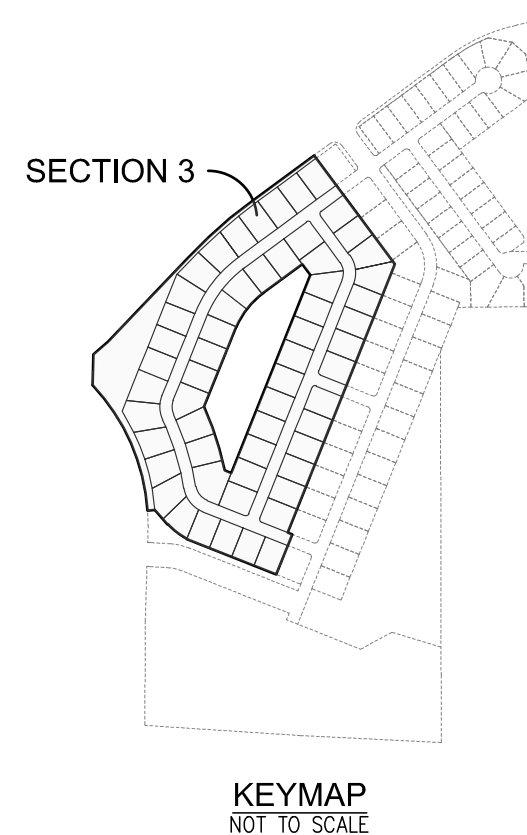
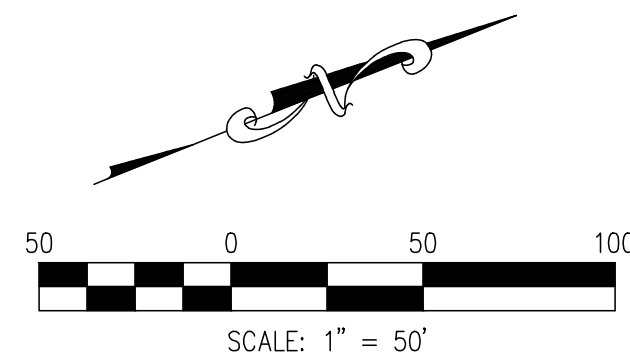
LARGE TREES

 - 12 'RED SUNSET' RED MAPLE [RM]
ACER RUBRUM 'RED SUNSET'
2-1/2" CALIPER
 - 31 LAUREL OAK [LO]
QUERCUS HEMISPHERICA
2-1/2" CALIPER

THESE PLANS ARE BASED UPON INFORMATION
FROM AN ALTA/ACSM LAND TITLE SURVEY
PERFORMED BY CKW LAND SURVEYING, INC. WITH
WORK ORDER NO. 130100 AND DATED JUNE 7,
2013 AND SURVEY INFORMATION PROVIDED BY
JERRY WIGGINS SURVEYING.



CALL 2 WORKING DAYS BEFORE YOU DIG
1-800-382-5544 or 811
 CALL TOLL FREE
 PER INDIANA STATE LAW IS-69-1991, IT IS AGAINST THE LAW
 TO EXCAVATE WITHOUT NOTIFYING THE UNDERGROUND LOCATION
 SERVICE TWO (2) WORKING DAYS BEFORE COMMENCING WORK



DIRECTORY PATH : R:\Active\John Grimmer\Hillview CC Property\CAD\Phase 3 - Plans
DATE/USER : 7/12/2018 11:17 AM / LCOX

LANDSCAPE PLANTING SPECIFICATIONS

QUALIFICATIONS OF LANDSCAPE CONTRACTOR

- The landscaping shall be performed by a single firm specializing in landscape planting.
- A list of successfully completed projects of this type, size and nature may be requested by the Owner for further qualification measures.
- The Landscape Contractor must hold a valid Nursery and Floral Certificate issued by the Indiana Department of Agriculture, as well as operate under a Commercial Pesticide Applicator License - issued by either the Indiana Department of Agriculture or the Indiana Structural Pest Control Board.

SCOPE OF WORK

- Work covered by these sections includes the furnishing of any paying for all materials, labor, services, equipment, licenses, taxes and any other items that are necessary for the execution, installation and completion of all work, specified herein and / or shown on the Landscape Plan.
- All work shall be performed in accordance with all applicable laws, codes and regulations required by authorities having jurisdiction over such work and provide all inspections and permits required by federal, state and local authorities in supply, transportation and installation of materials.
- The Landscape Contractor is responsible for the verification of all underground utility lines (telephone, gas, water, electrical, cable, television, etc...) prior to the start of any work.

PLANT MATERIALS

- Provide plants typical of their species or variety, with normal, densely developed branches and vigorous, fibrous root systems.
- Provide only sound, healthy, vigorous plants free from defects, disfiguring knots, sunscald injuries, frost cracks, abrasions of the bark, plant disease, insect eggs, borers and all other forms of infestation.
- All plants shall be balled and burlapped or container grown as specified. No container grown stock will be accepted if it is root bound. All root wrapping material made of synthetics shall be removed at time of planting.
- All material shall conform to the guidelines established by the American Association of Nurseryman.
- Cracked or mushroomed rootballs are not acceptable.
- Caliper measurement for standard (single trunk) trees shall be taken as follows: Six inches above the natural grade line for trees up to and including four inches in caliper; and twelve inches above the natural grade line for trees exceeding four inches in caliper - unless specified differently on the Landscape Plan.
- Multi-trunk trees shall be measured by their overall planted height.

PRODUCTS

- All manufactured products will be new.
- Topsoil: A friable, loamy topsoil (or silty sand) with minimal clay clods.
- Planting Mix: An equal part mixture of topsoil, sand and compost.
- Starter Fertilizer: A 13-13-13 ratio with 25% scu, 5% sulfur, 2% iron and additional micronutrients.
- Pre-Emergence: Any granular, non-staining pre-emergence that is labeled for the specific ornamentals or turf it will be utilized on. A pre-emergence herbicide is to be applied per the manufacturer's labeled rates.
- Mulch: As specified on the planting plan - well decomposed.
- Steel Edging: Professional steel edging, 14 gauge thick x 4 inches wide factory painted dark green. Acceptable manufacturers include Col-Met or approved equal.
- Weed Barrier: A 5 ounce, woven, needle-punched fabric. Acceptable product includes DeWitt' Pro 5, or approved equal.
- Tree Stakes: 6' green metal t-posts
- Tree Chain: 1" wide plastic tree chain

TREE PLANTING

- Tree holes shall be excavated to a width of two times the width of the rootball, and to a depth equal to the depth of the rootball (less two inches).
- Scarify the sides and bottom of the tree hole prior to the placement of the tree. Remove any glazing that may have been caused during the excavation of the hole.
- Install the tree so the top of the rootball is one to two inches above the surrounding grade.
- Backfill the tree hole utilizing the existing topsoil from on-site. Clay, rocks and other debris shall be removed from the soil prior to the backfill. Should additional soil be required to accomplish this task, import additional topsoil from off-site, add no additional cost to the Owner.
- The total number of tree stakes (beyond the minimum's listed below) will be left to the Landscape Contractor's discretion. Should any trees fall or lean, it will be the responsibility of the Landscape Contractor to straighten the tree, or replace it should it become damaged. Tree staking will consists of, at a minimum:
 - 15 - 30 gal Trees (2) Stakes per Tree
 - 45 - 100 gal Trees (3) Stakes per Tree
 - Multi-Trunk Trees No Minimum
- Upon completion of the planting, an earth watering basin will be constructed around the tree. The interior of the tree ring will then be covered with the weed barrier cloth, and topdressed with a three inch layer of mulch.

SHRUB AND GROUND COVER PLANTING

- Upon approval of the grade left by the General Contractor, the Landscape Contractor will rototill the proposed bed locations (BEFORE adding the imported soil). A four inch depth of the specified planting mix will then be evenly spread over the designated bed area. The planting bed will then be rototilled AGAIN , and a pre-emergence and starter fertilizer will be applied.
- The planting bed will then be hand raked smooth and crowned for proper drainage.
- Dig the hold twice as wide as the plant's rootball. Install the plant in the hole. Backfill around the plant.
- Install the weed barrier cloth, overlapping it at the ends. Utilize steel staples to keep the weed barrier cloth in place.
- A two inch depth of mulch will then be installed as a top dressing, covering the entire planting area.

TURF AREA PREPARATION

- The General Contractor will leave all turf areas (excluding the detention ponds) at two (2) inches below final grade. The Landscape Contractor shall import and spread a compacted two inch depth of loamy topsoil - ensuring the soil is compacted.
- Landscape Contractor will ensure all areas are crowned for proper drainage
- Apply the starter fertilizer.

SODDING

- Sod variety to be as specified on the Landscape Plan.
- Lay sod within 24 hours from the time of stripping. Do not lay if the ground is frozen.
- Lay the sod to form a solid mass with tightly fitted joints. Butt ends and sides of sod strips - do not overlap. Stagger strips to offset joints in adjacent courses.
- Water the sod thoroughly with a fine spray immediately after planting to obtain at least six inches of penetration into the soil below the sod.
- Roll the sod to ensure good contact of the sod's root system with the soil underneath.

HYDROMULCHING

- The hydromulch mix (per 1,000 sf) shall be as follows:

- 35# Cellulose Fiber Mulch
- 2# Fescue Seed
- 1# Annual Rye Seed
- 10# 15-15-15 Water Soluble Fertilizer

CLEAN UP

- During landscape preparation and planting, keep all pavement clean and all work areas in a neat, orderly condition.
- All excavated materials will be disposed of legally off the project site.

INSPECTION AND ACCEPTANCE

- Upon completion of the work, provide the site clean and free of materials and suitable fro use as intended.
- When the planting work is completed, the Owner will make an inspection to determine acceptability.
- When the inspected planting work does not comply with the contract documents, replace the rejected work within 24 hours.
- Landscape maintenance will continue until re-inspected by the Owner and found to be acceptable. Once acceptable, Final Acceptance will be issued, and the required maintenance period will commence.

LANDSCAPE MAINTENANCE

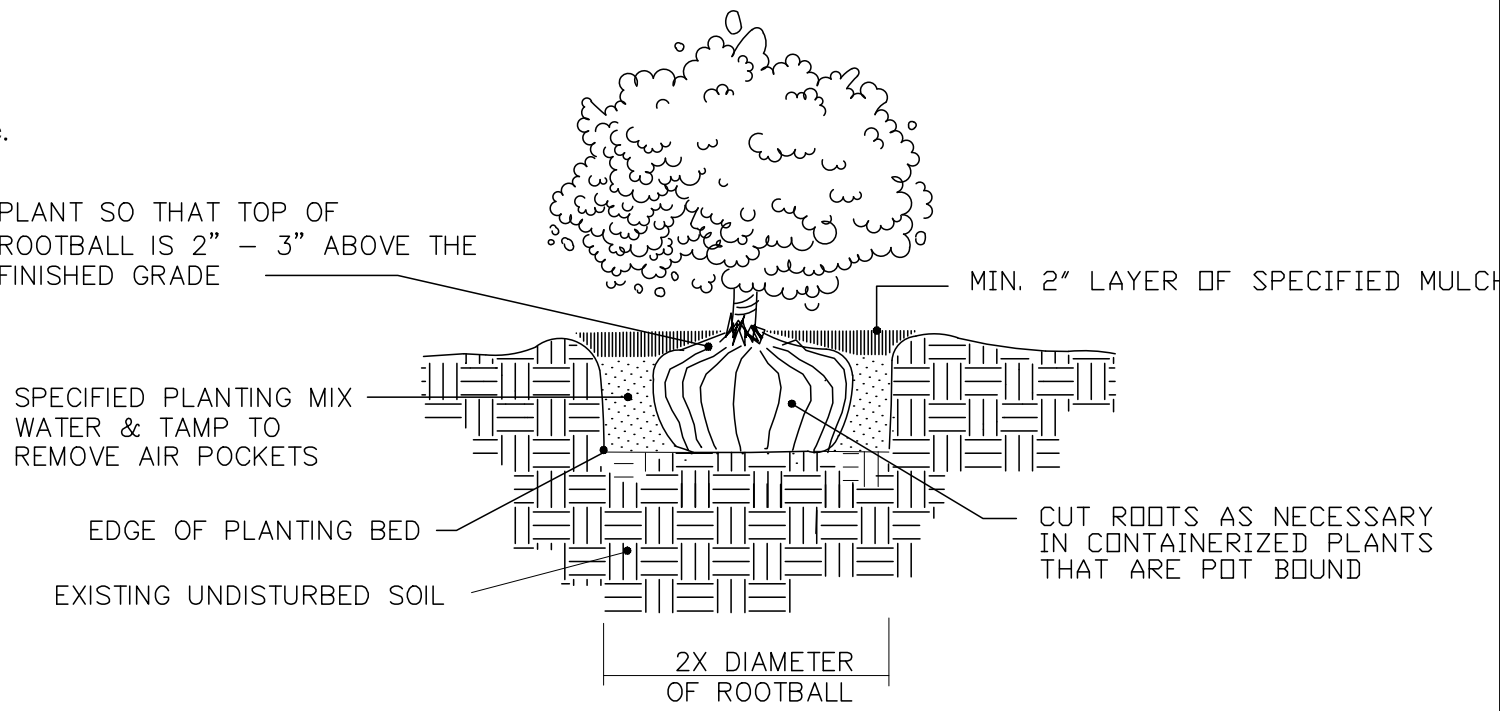
- The maintenance period shall commence once Final Acceptance has been issued by the Owner, and shall continue for a period of ninety (90) days.
- The monitoring and scheduling of the irrigation system will be the responsibility of the Landscape Contractor during this time. Coordinate all scheduling and any access requirements with the Owner.
- Landscape maintenance shall include, but not be limited to: WEEKLY SITE VISITS FOR mowing, edging, blowing, weeding, trimming, pruning, fertilizing, weed control, insect control, disease control, re-staking, re-setting of plants to their proper grade or their upright position, and any other means to keep the plantings healthy, free of insects and diseases, and in a continual thriving condition.

WARRANTY PERIOD, PLANT GUARANTEE AND REPLACEMENTS

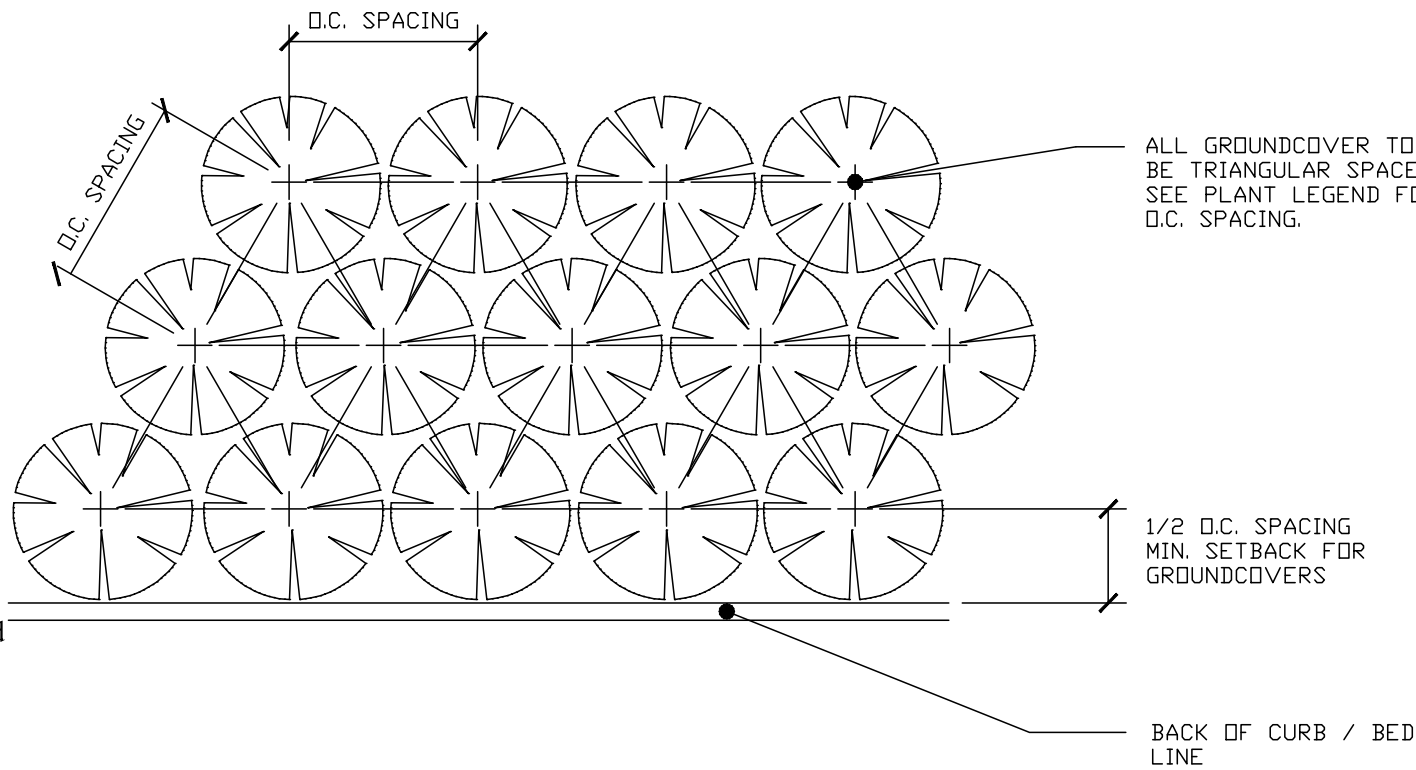
- Plant materials supplied shall be warrantied to remain alive and healthy for a period of twelve (12) months after the date of Final Acceptance by Owner (seasonal annuals for 90 days from Final Acceptance). Plants in an impaired, dead or dying condition after initial acceptance or within the warranty period shall be removed and replaced immediately to the satisfaction of the Owner.

RECORD DRAWINGS

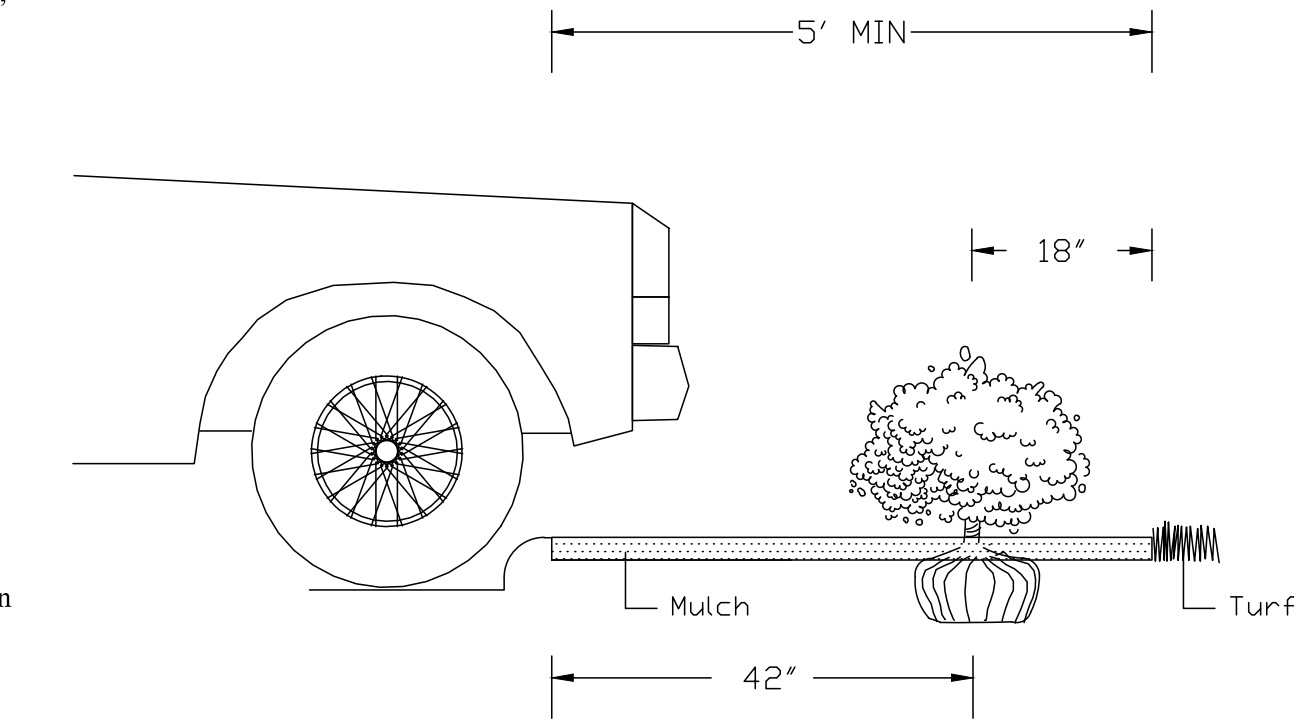
- Provide a minimum of (2) copies of record drawings to the Owner upon completion of work. A record drawing is a record of all changes that occurred in the field and that are documented through change orders, addenda, or contractor/consultant drawing markups.



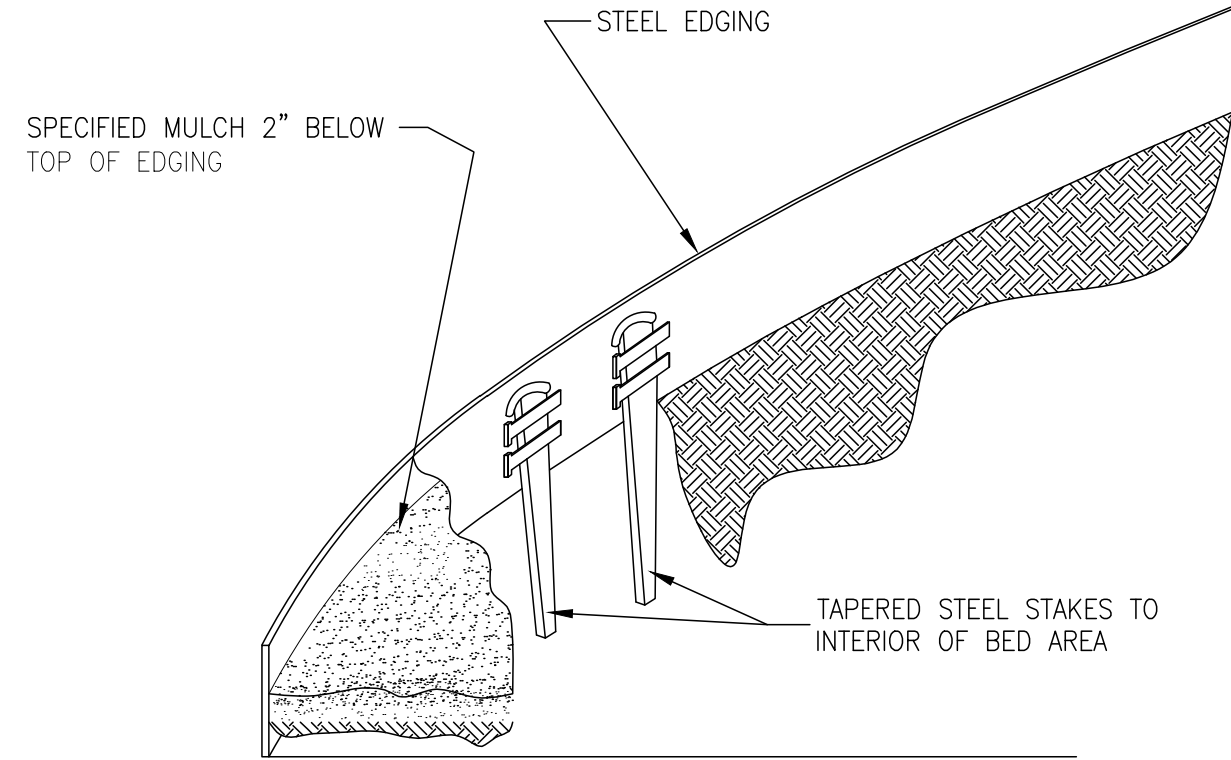
SHRUB/GROUND COVER PLANTING DETAIL
SCALE: NOT TO SCALE



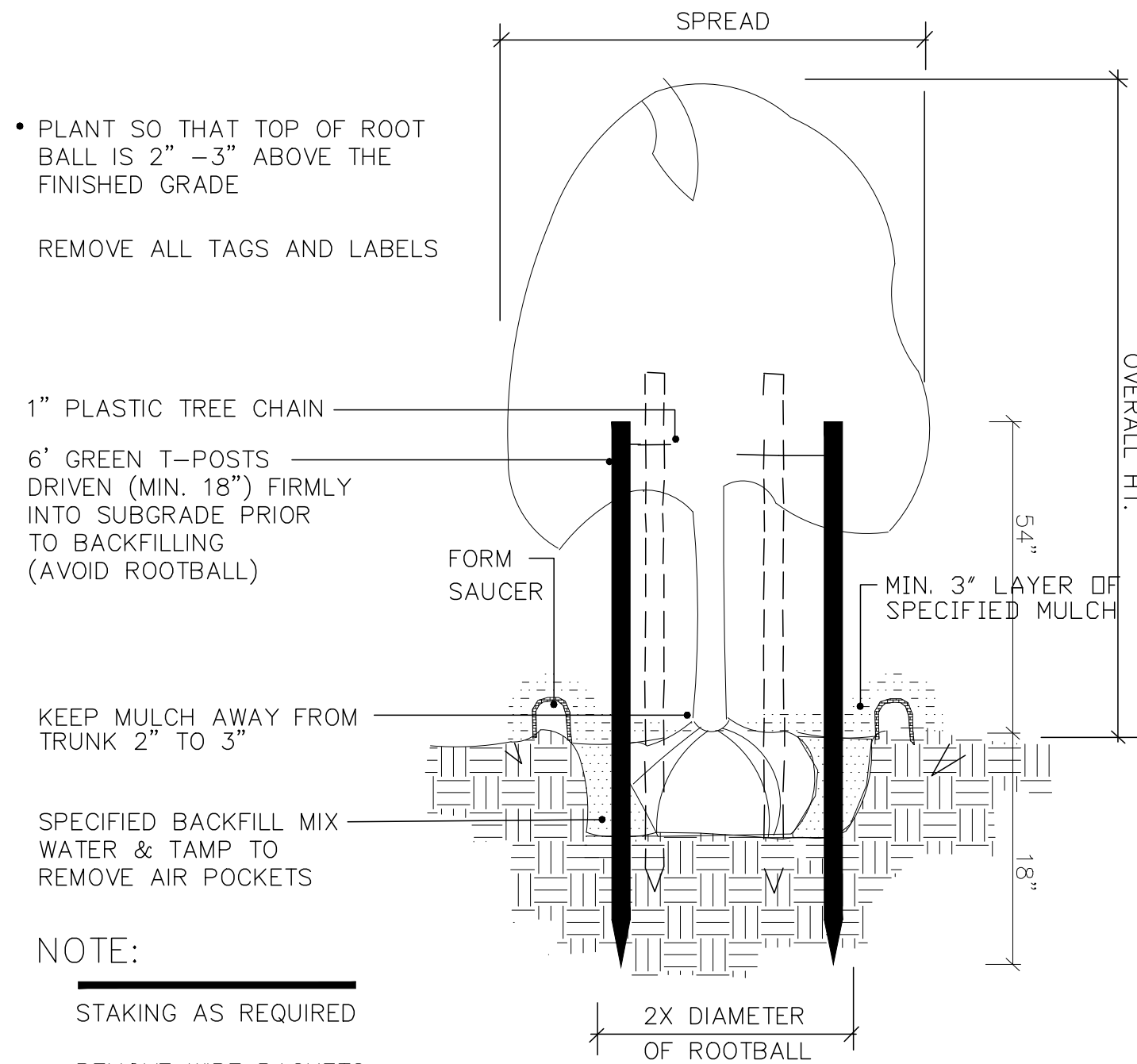
GROUND COVER SPACING DETAIL
SCALE: NOT TO SCALE



HEDGE PLANTING AT PARKING CURB
SCALE: NOT TO SCALE



LANDSCAPE EDGING DETAIL
SCALE: NOT TO SCALE



TREE PLANTING AND STAKING DETAIL
SCALE: NOT TO SCALE

EVERGREEN
DESIGN GROUP
Landscape Designers & Consultants

1 (800) 680 6630
519 IH-30, Ste 123
Rockwall, TX 75087
www.evergreendesigngroup.net

LANDSCAPE PLAN

HOMESTEADS AT HILLVIEW - SECTION 3

JOB No.	DRAWN	K/LF /LVC	CHECKED	TEN
DATE	JULY 12, 2018	DESIGNED	DJM	CJJ

NO.	DATE	REVISIONS	BY	APPR.
9				
8				
7				
6				
5				
4				
3				
2				
1				

SHEET 1202