

REVISED PRELIMINARY PLAN FOR
PFLUGERVILLE COMMUNITY DEVELOPMENT CORPORATION
SH 130 COMMERCE CENTER-PHASE III
(FORMERLY KNOWN AS RENEWABLE ENERGY PARK)

LEGAL DESCRIPTION:

DESCRIPTION OF A 41.648 ACRE (1,814,171 SQUARE FOOT), TRACT OF LAND SITUATED IN THE WILLIAM CALDWELL SURVEY ABSTRACT NO. 162, IN TRAVIS COUNTY, TEXAS, BEING ALL OF LOT 3F OF REPLAT OF LOT 3C - RENEWABLE ENERGY PARK ACCORDING TO THE PLAT THEREOF RECORDED IN DOCUMENT NO. 201300274 OF THE OFFICIAL PUBLIC RECORDS OF TRAVIS COUNTY, SAID 41.648 ACRE (1,814,171 SQUARE FOOT) TRACT OF LAND BEING MORE PARTICULARLY DESCRIBED BY METES AND BOUNDS AS FOLLOWS:

BEGINNING AT A CAPPED IRON ROD SET MARKED "NLAND 4933", BEING THE EASTERLY ROW LINE OF SUN LIGHT NEAR WAY, (RIGHT-OF-WAY WIDTH VARIES), SAME BEING IN THE EASTERLY BOUNDARY LINE OF THAT CALLED 17,800 REMNANT TRACT OF LAND CONVEYED TO TRAVIS COUNTY BY INSTRUMENT RECORDED IN DOCUMENT NO. 1999122493 OF THE OFFICIAL PUBLIC RECORDS OF TRAVIS COUNTY, TEXAS, SAME BEING THE SOUTHWESTERLY CORNER OF SAID LOT 3C, SAME BEING THE NORTHWESTERLY CORNER OF SAID LOT 3F, FOR THE POINT OF BEGINNING OF THE HEREIN DESCRIBED TRACT, AND FROM WHICH A CAPPED IRON ROD FOUND MARKED "DODD", BEING IN THE EASTERLY BOUNDARY LINE OF SAID REMNANT OF THE 17,800 ACRE TRACT, SAME BEING THE SOUTHWESTERLY CORNER OF LOT 3G OF THE AMENDED PLAT OF LOTS 3A AND 3B REPLAT OF LOT 3, RENEWABLE ENERGY PARK SUBDIVISION, RECORDED IN DOCUMENT NO. 201500231 OF THE OFFICIAL PUBLIC RECORDS OF WILLIAMSON COUNTY, TEXAS, BEARS N 28°18'09" E AT A DISTANCE OF 643.80 FEET;

THENCE, DEPARTING THE EASTERLY BOUNDARY LINE OF SAID REMNANT OF THE 17,800 ACRE TRACT, WITH THE COMMON BOUNDARY LINE OF SAID LOT 3C AND LOT 3F, THE FOLLOWING SEVENTEEN (17) COURSES:

- 1) S 32°52'51" E FOR A DISTANCE OF 61.02 FEET TO A CAPPED IRON ROD FOUND MARKED "DODD" FOR AN ANGLE POINT OF THE HEREIN DESCRIBED TRACT;
- 2) S 71°58'40" E FOR A DISTANCE OF 34.65 FEET TO A CAPPED IRON ROD FOUND MARKED "DODD" FOR AN ANGLE POINT OF THE HEREIN DESCRIBED TRACT;
- 3) S 86°24'45" E FOR A DISTANCE OF 76.28 FEET TO A CAPPED IRON ROD FOUND MARKED "DODD" FOR AN ANGLE POINT OF THE HEREIN DESCRIBED TRACT;
- 4) S 57°09'39" E FOR A DISTANCE OF 190.37 FEET TO A CAPPED IRON ROD FOUND MARKED "ACS" FOR AN ANGLE POINT OF THE HEREIN DESCRIBED TRACT;
- 5) S 33°10'46" E FOR A DISTANCE OF 104.47 FEET TO A CAPPED IRON ROD FOUND MARKED "DODD" FOR AN ANGLE POINT OF THE HEREIN DESCRIBED TRACT;
- 6) S 37°33'37" E FOR A DISTANCE OF 217.67 FEET TO A CAPPED IRON ROD SET MARKED "NLAND 4933" FOR AN ANGLE POINT OF THE HEREIN DESCRIBED TRACT;
- 7) S 31°57'01" E FOR A DISTANCE OF 65.69 FEET TO A CAPPED IRON ROD FOUND MARKED "ACS" FOR AN ANGLE POINT OF THE HEREIN DESCRIBED TRACT;
- 8) S 41°50'16" E FOR A DISTANCE OF 146.03 FEET TO A CAPPED IRON ROD FOUND MARKED "NLAND 4933" FOR AN ANGLE POINT OF THE HEREIN DESCRIBED TRACT;
- 9) S 30°52'45" E FOR A DISTANCE OF 103.90 FEET TO A CAPPED IRON ROD FOUND MARKED "LSLS 4933" FOR AN ANGLE POINT OF THE HEREIN DESCRIBED TRACT;
- 10) S 40°09'55" E FOR A DISTANCE OF 72.95 FEET TO A CAPPED IRON ROD SET MARKED "NLAND 4933" FOR AN ANGLE POINT OF THE HEREIN DESCRIBED TRACT;
- 11) S 50°18'29" E FOR A DISTANCE OF 79.71 FEET TO A CAPPED IRON ROD SET MARKED "NLAND 4933" FOR AN ANGLE POINT OF THE HEREIN DESCRIBED TRACT;
- 12) S 50°05'18" E FOR A DISTANCE OF 88.02 FEET TO A CAPPED IRON ROD FOUND MARKED "DODD" FOR AN ANGLE POINT OF THE HEREIN DESCRIBED TRACT;
- 13) S 53°00'47" E FOR A DISTANCE OF 215.79 FEET TO A CAPPED IRON ROD FOUND MARKED "ACS" FOR AN ANGLE POINT OF THE HEREIN DESCRIBED TRACT;
- 14) S 50°23'55" E FOR A DISTANCE OF 50.36 FEET TO A CAPPED IRON ROD FOUND MARKED "DODD" FOR AN ANGLE POINT OF THE HEREIN DESCRIBED TRACT;
- 15) S 58°46'17" E FOR A DISTANCE OF 90.51 FEET TO A CAPPED IRON ROD FOUND MARKED "DODD" FOR AN ANGLE POINT OF THE HEREIN DESCRIBED TRACT;
- 16) S 45°29'37" E FOR A DISTANCE OF 266.82 FEET TO A CAPPED IRON ROD FOUND MARKED "DODD" FOR AN ANGLE POINT OF THE HEREIN DESCRIBED TRACT;
- 17) S 89°14'59" E FOR A DISTANCE OF 257.81 FEET TO A CAPPED IRON ROD FOUND MARKED "NLAND 4933" BEING THE SOUTHEASTERLY CORNER OF SAID LOT 3C, SAME BEING AN ANGLE POINT OF SAID LOT 3F ALSO BEING IN THE PROPOSED ROW LINE OF IMPACT WAY (80' RIGHT-OF-WAY WIDTH), FOR AN ANGLE POINT OF THE HEREIN DESCRIBED TRACT;
- 18) DEPARTING SAID LOT 3F, WITH SAID PROPOSED ROW LINE, N 13°19'43" W FOR A DISTANCE OF 353.86 TO A CAPPED IRON ROD FOUND MARKED "NLAND 4933" FOR AN ANGLE POINT OF THE HEREIN DESCRIBED TRACT, BEING THE SOUTHWESTERLY CORNER OF THE EXISTING SOUTHERLY RIGHT-OF-WAY LINE OF IMPACT WAY (80' RIGHT-OF-WAY WIDTH), SAME BEING THE NORTHWESTERLY CORNER OF SAID PROPOSED IMPACT WAY;
- 19) THENCE, DEPARTING SAID LOT 3C, WITH SAID EXISTING AND PROPOSED ROW LINE OF SAID IMPACT WAY, N 76°40'17" E FOR A DISTANCE OF 80.00 FEET TO A CAPPED IRON ROD FOUND MARKED "NLAND 4933", BEING IN THE WESTERLY BOUNDARY LINE OF LOT 3E OF SAID REPLAT OF LOT 3C, SAME BEING THE SOUTHEASTERLY CORNER OF SAID EXISTING IMPACT WAY, ALSO BEING THE NORTHEASTERLY CORNER OF SAID PROPOSED IMPACT WAY;
- 20) THENCE, WITH THE COMMON BOUNDARY LINE OF SAID LOT 3E AND THE PROPOSED ROW LINE OF SAID IMPACT WAY, S 13°19'43" E FOR A DISTANCE OF 387.87 FEET TO A CAPPED IRON ROD FOUND MARKED "NLAND 4933", FOR THE SOUTHWESTERLY CORNER OF SAID LOT 3E AND THE NORTHWESTERLY CORNER OF SAID LOT 3H;
- 21) THENCE, DEPARTING SAID PROPOSED ROW LINE, WITH THE COMMON BOUNDARY LINE OF SAID LOT 3E AND LOT 3H, N 87°57'50" E FOR A DISTANCE OF 781.71 FEET TO A CAPPED IRON ROD FOUND MARKED "NLAND 4933", BEING IN THE EXISTING WESTERLY ROW LINE OF S.H. 130 (RIGHT-OF-WAY WIDTH VARIES), SAME BEING THE SOUTHEASTERLY CORNER OF SAID LOT 3E, ALSO BEING THE NORTHEASTERLY CORNER OF SAID LOT 3H, FOR THE NORTHWESTERLY CORNER OF THE HEREIN DESCRIBED TRACT;

THENCE, WITH SAID EXISTING ROW LINE, SAME BEING THE EASTERLY BOUNDARY LINE OF SAID LOT 3H THE FOLLOWING THREE (3) COURSES:

- 22) S 14°09'21" E FOR A DISTANCE OF 355.30 FEET TO A CAPPED IRON ROD FOUND MARKED "G&R", FOR AN ANGLE POINT OF THE HEREIN DESCRIBED TRACT;
- 23) S 19°38'49" E FOR A DISTANCE OF 511.89 FEET TO CAPPED IRON ROD FOUND MARKED "XDOT", FOR AN ANGLE POINT OF THE HEREIN DESCRIBED TRACT;
- 24) S 26°55'22" W FOR A DISTANCE OF 236.74 FEET TO A CAPPED IRON ROD FOUND MARKED "XDOT", IN THE NORTHERLY BOUNDARY LINE OF THAT CALLED 17,693 ACRE TRACT OF LAND CONVEYED TO THE STATE OF TEXAS BY INSTRUMENT RECORDED IN DOCUMENT NO. 2004188029 OF THE OFFICIAL PUBLIC RECORDS OF TRAVIS COUNTY TEXAS, BEING THE MOST SOUTHEASTERLY CORNER OF SAID LOT 3H, FOR THE MOST SOUTHEASTERLY CORNER OF THE HEREIN DESCRIBED TRACT;
- 25) THENCE, DEPARTING THE EXISTING WESTERLY RIGHT-OF-WAY LINE OF SAID S.H. 130, WITH THE NORTHERLY BOUNDARY LINE OF SAID 17,693 ACRE TRACT, SAME BEING THE SOUTHERLY BOUNDARY LINE OF SAID LOT 3H, N 62°05'24" W, PASSING AT A DISTANCE OF 897.73 FEET TO A CAPPED IRON ROD SET MARKED "NLAND 4933", BEING THE SOUTHWESTERLY CORNER OF SAID LOT 3H AND SAID PROPOSED IMPACT WAY, PASSING AT A DISTANCE OF 1,002.58 FEET FOR THE CALCULATED NORTHWESTERLY CORNER OF SAID 17,693 ACRE TRACT, SAME BEING THE MOST NORTHEASTERLY CORNER OF THAT CALLED 359.82 ACRE TRACT OF LAND CONVEYED TO TRAVIS COUNTY, TEXAS BY INSTRUMENT RECORDED IN VOLUME 1351, PAGE 3751 OF THE REAL PROPERTY RECORDS OF TRAVIS COUNTY, TEXAS, PASSING AT A DISTANCE OF 1004.11 FEET TO A CAPPED IRON ROD SET MARKED "NLAND 4933", BEING THE SOUTHEASTERLY CORNER OF SAID LOT 3F AND SAID PROPOSED IMPACT WAY, CONTINUING FOR A TOTAL DISTANCE OF 2,972.04 FEET TO A CAPPED IRON ROD FOUND MARKED "TRAVIS COUNTY", BEING THE SOUTHEASTERLY CORNER OF SAID 17,800 REMNANT TRACT, SAME BEING THE EASTERLY RIGHT-OF-WAY LINE OF SAID SUN LIGHT NEAR WAY, BEING THE MOST SOUTHWESTERLY CORNER OF SAID LOT 3F, FOR THE MOST SOUTHWESTERLY CORNER OF THE HEREIN DESCRIBED TRACT;

THENCE, WITH THE EASTERLY BOUNDARY LINE OF SAID REMNANT TRACT, BEING SAID EASTERLY RIGHT-OF-WAY LINE, SAME BEING THE WESTERLY BOUNDARY LINE OF SAID LOT 3F, THE FOLLOWING TWO (2) COURSES:

- 26) N 17°07'22" W FOR A DISTANCE OF 563.65 FEET, TO A CAPPED IRON ROD SET MARKED "NLAND 4933", FOR AN ANGLE POINT IN THE HEREIN DESCRIBED TRACT;
- 27) N 28°18'09" E FOR A DISTANCE OF 387.07 FEET TO THE POINT OF BEGINNING, CONTAINING 41.648 ACRES (1,814,171 SQUARE FEET) OF LAND, MORE OR LESS.

STATE OF TEXAS:
KNOW ALL MEN BY THESE PRESENTS:
COUNTY OF WILLIAMSON:
THAT I, M. STEPHEN TRUESDALE, DO HEREBY CERTIFY THAT I PREPARED THIS PLAN FROM AN ACTUAL AND ACCURATE ON-THE-GROUND SURVEY OF THE LAND, AND THAT THE CORNER MONUMENTS SHOWN THEREON MARKING THE BOUNDARY OF THE PROPOSED SUBDIVISION, BUT NOT INTERIOR LOT LINES, WERE PROPERLY PLACED UNDER MY PERSONAL SUPERVISION, IN ACCORDANCE WITH ALL CITY OF PFLUGERVILLE, TEXAS CODES AND ORDINANCES AND THAT ALL KNOWN EASEMENTS WITHIN THE BOUNDARY OF THE PLAT ARE SHOWN HEREON.

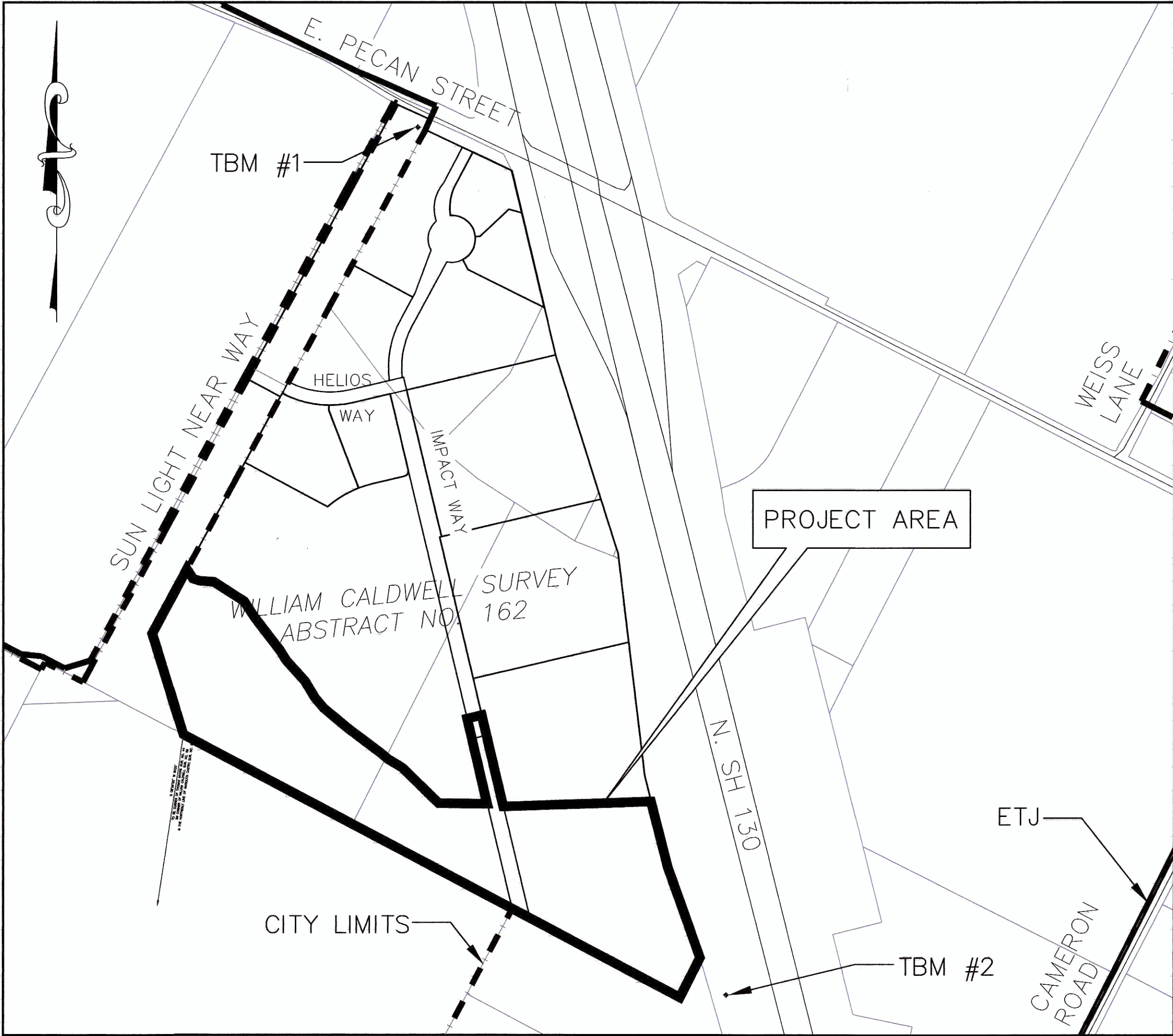
M. Stephen Truesdale 18 APR 2018
SIGNATURE OF REGISTERED PROFESSIONAL LAND SURVEYOR



Registered Professional Land Surveyor No. 4933
Licensed State Land Surveyor
Inland Geodetics, LLC
1504 Chisholm Trail Road Suite 103
Round Rock, TX 78661
512-238-1200
Firm Registration No. 100591-00

REV. NO.	DATE	DESCRIPTION	APPROVED	PROJECT MANAGER:	WAM
				DESIGNED BY:	JTH
				CHECKED BY:	WAM
				DRAWN BY:	CSC
				DCS PROJECT NO:	20101353

PRELIMINARY PLAN ONLY - NOT FOR RECORDATION



OWNERS
PFLUGERVILLE COMMUNITY
DEVELOPMENT CENTER
3801 HELIOS WAY, SUITE 130
PFLUGERVILLE, TX 78660

UTILITY PROVIDERS
ONCOR
PAUL LEMONS
350 TEXAS AVE
ROUND ROCK, TX 78664
512-244-5693

ATMOS
CHRIS LEBLANC
3110 N I-35
ROUND ROCK, TX 78681
512-310-3801

APRIL 2018

SCALE 1"=500'



ENGINEERING, LLC

1101 S. Capital of Texas Highway,
Building G-100
Austin, Texas 78746
Phone (512) 614-6171 Fax (512) 284-8021
T.B.P.E. FIRM NO. F-13162

TOTAL NUMBER OF LOTS: 2
TOTAL ACREAGE: 41.6

	LINEAR FEET	WIDTH (FT)	ACRES
EXISTING IMPACT WAY	3008	48	6.370
IMPACT WAY EXTENSION	560	48	0.617
LOT 3F	2185	485	24.393
LOT 3H	1000	675	15.494
R.O.W.	959	80	1.761

DRAWING INDEX

SERIES_000 -- GENERAL

000-01 COVER SHEET

SERIES_100 -- PRELIMINARY PLAN

01C-01 PRELIMINARY PLAN
01C-02 EXISTING CONDITIONS, PROPOSED GRADING PLAN, DEMOLITION PLAN, AND TREE SURVEY
01C-03 WATER & WASTEWATER UTILITY PLAN
01C-04 EXISTING OVERALL DRAINAGE AREA MAP AND CALCULATIONS
01C-05 STORM SEWER CALCULATIONS
01C-06 PROPOSED OVERALL DRAINAGE AREA MAP AND CALCULATIONS
01C-07 PROPOSED SUB-DRAINAGE AREA MAP AND CALCULATIONS
01C-08 PRELIMINARY ILLUMINATION PLAN

THESE PLANS ARE IN ACCORDANCE WITH THE FOLLOWING STUDIES/REPORTS:

TITLE	AUTHOR	DATE	APPROVAL DATE
ENGINEERING AND DRAINAGE REPORT	DCS ENGINEERING, LLC	SEPTEMBER 2013	NOVEMBER 13, 2013
TRAFFIC IMPACT ANALYSIS	KIMLEY-HORN	DECEMBER 15, 2016	

NOTES:

1. THIS PLAN LIES WITHIN THE CITY OF PFLUGERVILLE FULL PURPOSE JURISDICTION.
2. WATER AND WASTEWATER SHALL BE PROVIDED BY CITY OF PFLUGERVILLE. NO LOT IN THIS SUBDIVISION SHALL BE OCCUPIED UNTIL CONNECTED TO WATER AND WASTEWATER FACILITIES.
3. A 10-FT PUBLIC UTILITY EASEMENT (P.U.E.) SHALL BE DEDICATED ALONG ALL STREET FRONTAGE(S).
4. EASEMENT(S) DEDICATED TO THE PUBLIC BY THIS PLAN SHALL ALSO BE SUBJECT TO THE TERMS AND CONDITIONS OF THE ENGINEERING DESIGN MANUAL, AS AMENDED. THE GRANTOR [PROPERTY OWNER(S)], HEIRS, SUCCESSORS AND ASSIGNS SHALL RETAIN THE OBLIGATION TO MAINTAIN THE SURFACE OF THE EASEMENT PROPERTY, INCLUDING THE OBLIGATION TO REGULARLY MOW OR CUT BACK VEGETATION AND TO KEEP THE SURFACE OF THE EASEMENT PROPERTY FREE OF LITTER, DEBRIS, AND TRASH.
5. NO IMPROVEMENTS INCLUDING BUT NOT LIMITED TO STRUCTURES, FENCES, OR LANDSCAPING SHALL BE ALLOWED IN A PUBLIC EASEMENT, EXCEPT AS APPROVED BY THE CITY.
6. THE PROPERTY OWNER SHALL PROVIDE ACCESS TO DRAINAGE AND UTILITY EASEMENTS AS MAY BE NECESSARY AND SHALL NOT PROHIBIT ACCESS FOR THE PLACEMENT, CONSTRUCTION, INSTALLATION, REPLACEMENT, REPAIR, MAINTENANCE, RELOCATION, REMOVAL, OPERATION AND INSPECTION OF SUCH DRAINAGE AND UTILITY FACILITIES, AND RELATED APPURTENANCES.
7. A SIX (6) FOOT WIDE SIDEWALK SHALL BE PROVIDED ON BOTH SIDES OF THE STREET.
8. STREETLIGHTS SHALL BE INSTALLED AND IN FULL WORKING ORDER WITH THE PUBLIC IMPROVEMENTS. ALL STREETLIGHTS SHALL BE IN CONFORMANCE WITH ALL CITY OF PFLUGERVILLE ORDINANCES INCLUDING BUT NOT LIMITED TO BEING DOWNSCALED AND FULL CUT OFF TYPE.
9. THIS SUBDIVISION IS SUBJECT TO ALL CITY OF PFLUGERVILLE ORDINANCES OR TECHNICAL MANUALS RELATED TO TREE PRESERVATION PER CITY ORDINANCE # 1203-15-02-24 AND CITY RESOLUTION # 1224-09-08-25-BA.
10. THE COMMUNITY IMPACT FEE RATE FOR WATER AND WASTEWATER WILL BE ASSESSED AT THE TIME OF FINAL PLAT.
11. ON-SITE STORM WATER FACILITIES SHALL BE PROVIDED TO MITIGATE POST-DEVELOPMENT PEAK RUNOFF RATES FOR THE 2 YEAR, 25 YEAR AND 100 YEAR STORM EVENTS.
12. ALL ELECTRIC UTILITY INFRASTRUCTURE INCLUDING BUT NOT LIMITED TO TELEPHONE, CABLE TELEVISION, ELECTRIC UTILITY LATERAL AND SERVICE LINES SHALL BE INSTALLED IN ACCORDANCE WITH THE CITY OF PFLUGERVILLE ENGINEERING DESIGN MANUAL.
13. THE OWNER OF THIS SUBDIVISION, AND HIS OR HER SUCCESSORS AND ASSIGNS, ASSUMES RESPONSIBILITY FOR PLANS FOR CONSTRUCTION OF SUBDIVISION IMPROVEMENTS WHICH COMPLY WITH APPLICABLE CODES AND REQUIREMENTS OF THE CITY OF PFLUGERVILLE.
14. CONSTRUCTION PLANS AND SPECIFICATIONS FOR ALL SUBDIVISION IMPROVEMENTS SHALL BE REVIEWED AND APPROVED BY THE CITY OF PFLUGERVILLE PRIOR TO ANY CONSTRUCTION WITHIN THE SUBDIVISION.
15. SITE DEVELOPMENT CONSTRUCTION PLANS SHALL BE REVIEWED AND APPROVED BY THE CITY OF PFLUGERVILLE PRIOR TO ANY CONSTRUCTION.
16. NO PORTION OF THIS TRACT IS WITHIN A FLOOD HAZARD AREA AS SHOWN ON THE FEMA FLOOD INSURANCE RATE MAP PANEL # 48453C0290J FOR TRAVIS COUNTY, EFFECTIVE AUGUST 18, 2014.
17. ALL PROPOSED FENCES AND WALLS ADJACENT TO INTERSECTING PUBLIC ROADWAY RIGHT-OF-WAY OR ADJACENT TO PRIVATE ACCESS DRIVES SHALL BE IN COMPLIANCE WITH THE SIGHT DISTANCE REQUIREMENTS OF THE CITY OF PFLUGERVILLE ENGINEERING DESIGN MANUAL, AS AMENDED.
18. WASTEWATER AND WATER SYSTEMS SHALL CONFORM TO TCEQ (TEXAS COMMISSION ON ENVIRONMENTAL QUALITY) AND STATE BOARD OF INSURANCE REQUIREMENTS. THE OWNER UNDERSTANDS AND ACKNOWLEDGES THAT PLAT VACATION OR RE-PLATTING MAY BE REQUIRED AT THE OWNER'S SOLE EXPENSE IF PLANS TO DEVELOP THIS SUBDIVISION DO NOT COMPLY WITH SUCH CODES AND REQUIREMENTS.
19. THESE PLANS HAVE BEEN DESIGNED WITH CONSIDERATION TO THE MOU EXECUTED SEPTEMBER 26, 2017.
20. ANY RESIDENTIAL DEVELOPMENT PROPOSED WITHIN THIS SUBDIVISION SHALL BE SUBJECT TO THE PUBLIC PARKLAND DEDICATION AND PARK DEVELOPMENT FEES PER CITY ORDINANCE NO. 1203-15-02-24.

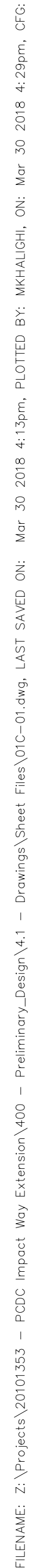
BENCHMARK NOTES:

- TBM #1 (SURFACE COORDINATES)
SQUARE CUT ON WEST END OF HEADWALL
ELEV=653.11', N=10129748.85, E=3161201.22
- TBM #2 (SURFACE COORDINATES)
SQUARE CUT ON SOUTH END OF HEADWALL
ELEV=607.46', N=10125140.52, E=3162834.73

COORDINATES ARE SURFACE VALUES BASED ON THE TEXAS STATE PLANE COORDINATE SYSTEM, NAD 83, CENTRAL ZONE, USING A COMBINED SURFACE ADJUSTMENT FACTOR OF 0.99990506. ELEVATIONS REPORTED ARE ORTHOMETRIC HEIGHTS BASED ON GEOID 09.

ALL RESPONSIBILITY FOR THE ADEQUACY OF THESE PLANS REMAINS WITH THE ENGINEER WHO PREPARED THEM. IN REVIEWING THESE PLANS, THE CITY OF PFLUGERVILLE MUST RELY ON THE ADEQUACY OF THE WORK OF THE DESIGN ENGINEER.

WADE MORGAN
W. Morgan 4/23/18
STATE OF TEXAS
LICENSED PROFESSIONAL ENGINEER
93700



NOTES:

1. DRAINAGE EASEMENT IS OWNED AND MAINTAINED BY THE PFLUGERVILLE COMMUNITY DEVELOPMENT CORPORATION.
2. NO PORTION OF THIS TRACT IS WITHIN A FLOOD HAZARD AREA AS SHOWN ON THE FEMA FLOOD INSURANCE RATE MAP PANEL # 48453C029QJ FOR TRAVIS COUNTY, EFFECTIVE AUGUST 18, 2014.

COORDINATES ARE SURFACE VALUES BASED ON THE TEXAS STATE
PLANE COORDINATE SYSTEM, NAD 83, CENTRAL ZONE, USING A
COMBINED SURFACE ADJUSTMENT FACTOR OF 0.99990506. ELEVATIONS
REPORTED ARE ORTHOMETRIC HEIGHTS BASED ON GEOID 09.

DESCRIPTION	NORTHING	EASTING	ELEV
TPT-LSI-MON-OPUS-UR	129330.890	3161743.059	654.52
TPT-IRSC-OPUS-UR	130201.930	3161517.427	644.05
TPT-GPS	125453.033	3162704.811	608.45
TPT-IRSC-OPUS	126377.714	3162477.921	626.09
TPT-80DW	127825.920	3161697.790	631.79
TPT-80DW	127814.820	3161534.288	632.66
TPT-80DW	127851.300	3161517.927	635.05
TPT-80DW/W	127859.129	3161544.940	631.23
TPT-80DW	128179.800	3161194.686	641.96
TPT-80DW	128220.820	3161221.985	641.74
GPS-ALUMINUM CAP FOUND	129464.363	3161006.789	661.00

PROPOSED LOT	PROPOSED LAND USE	ACREAGE
3F	URBAN CENTER LEVEL 5	24.393
3H	DRAINAGE EASEMENT	15.494
R.O.W.	PUBLIC ROADWAY	1.761

TBM #2
SQUARE CUT ON
SOUTH END OF HEADWALL
EL.= 607.46'
APPROXIMATE LOCATION
N=10125140.52
E=3162834.73

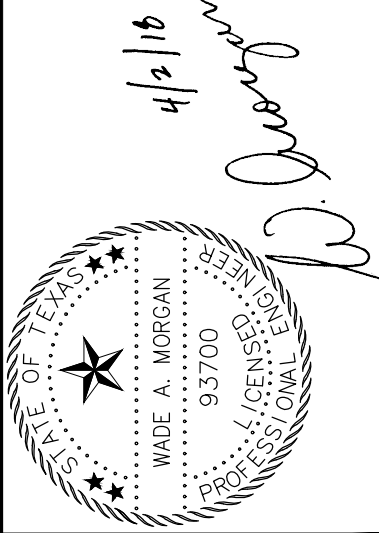
DCS ENGINEERING, LLC
1101 S. CAPITAL OF TEXAS
HIGHWAY, BUILDING G-100
AUSTIN, TX 78746
TEL: (512) 614-6171
FAX: (512) 284-8021
T.B.P.E. FIRM NO. F-13162



PRELIMINARY PLAN

PRELIMINARY PLAN

**PFLUGERVILLE COMMUNITY
DEVELOPMENT CORPORATION**
SH 130 COMMERCE CENTER - PHASE III
(FORMERLY KNOWN AS
RENEWABLE ENERGY PARK)
REVISED PRELIMINARY PLAN



DATE: APRIL 2, 2018

DRAWN BY: MKS

DESIGNED BY: JTI

CHECKED BY: WA

ADDENDUM

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DRAWING
01 C-01

NOTES:

- ALL TREES NOT LOCATED WITHIN THE LIMITS OF CONSTRUCTION AND OUTSIDE OF DISTURBED AREAS SHALL BE PRESERVED.
- ALL TREES SHOWN ON THIS PLAN TO BE RETAINED SHALL BE PROTECTED DURING CONSTRUCTION WITH FENCING.
- TREE PROTECTION FENCES SHALL BE ERECTED ACCORDING TO CITY STANDARDS FOR TREE PROTECTION, INCLUDING TYPES OF FENCING AND SIGNAGE.
- TREE PROTECTION FENCES SHALL BE INSTALLED PRIOR TO THE COMMENCEMENT OF ANY SITE PREPARATION WORK (CLEARING, GRUBBING, OR GRADING) AND SHALL BE MAINTAINED THROUGHOUT ALL PHASES OF THE CONSTRUCTION PROJECT.
- EROSION AND SEDIMENTATION CONTROL BARRIERS SHALL BE INSTALLED OR MAINTAINED IN A MANNER WHICH DOES NOT RESULT IN TRENCHING OR SOIL BUILD-UP WITHIN TREE CRZS OR DRIPLINES.
- TREE PROTECTION FENCES SHALL COMPLETELY SURROUND THE TREE OR CLUSTERS OF TREES AND BE PLACED AT THE OUTERMOST LIMITS OF THE TREE BRANCHES (DRIPLINE) OR CRZ, WHICHEVER IS GREATER; AND SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION PROJECT IN ORDER TO PREVENT

THE FOLLOWING:

- SOIL COMPACTION IN ROOT ZONE AREA RESULTING FROM VEHICULAR TRAFFIC OR STORAGE OF EQUIPMENT OR MATERIAL.
- ROOT ZONE DISTURBANCES DUE TO GRADE CHANGES (GREATER THAN 6 INCHES CUT OR FILL) OR TRENCHING NOT REVIEWED AND AUTHORIZED BY THE CITY ARBORIST OR ADMINISTRATOR.
- WOUNDS TO EXPOSED ROOTS, TRUNK, OR LIMBS BY MECHANICAL EQUIPMENT.
- OTHER ACTIVITIES DETRIMENTAL TO TREES, SUCH AS CHEMICAL STORAGE, CONCRETE TRUCK CLEANING AND FIRES.
- EXCEPTIONS TO INSTALLING TREE FENCES AT THE TREE DRIPLINES OR CRZ, WHICHEVER IS GREATER, MAY BE PERMITTED IN THE FOLLOWING CASES:
 - WHERE THERE IS TO BE AN APPROVED GRADE CHANGE, IMPERMEABLE PAVING SURFACE, OR TREE WELL.
 - WHERE PERMEABLE PAVING IS TO BE INSTALLED, ERECT THE FENCE AT THE OUTER LIMITS OF THE PERMEABLE PAVING AREA.
 - WHERE TREES ARE CLOSE TO PROPOSED BUILDINGS, ERECT THE FENCE NO CLOSER THAN 6 FEET TO THE BUILDING.
 - WHERE THERE ARE SEVERE SPACE CONSTRAINTS DUE TO TRACT SIZE, OR OTHER SPECIAL

REQUIREMENTS, CONTACT THE CITY ARBORIST TO DISCUSS ALTERNATIVES.

- WHERE ANY OF THE ABOVE EXCEPTIONS RESULT IN A FENCE THAT IS CLOSER THAN 5 FEET TO A TREE TRUNK, PROTECT THE TRUNK WITH STRAPPED-ON PLANKING TO A HEIGHT OF 8 FEET (OR TO THE LIMITS OF LOWER BRANCHING) IN ADDITION TO THE REDUCED FENCING PROVIDED.
- WHERE ANY OF THE ABOVE EXCEPTIONS RESULT IN AREAS OF UNPROTECTED ROOT ZONES UNDER THE DRIPLINE OR CRZ, WHICHEVER IS GREATER, THOSE AREAS SHOULD BE COVERED WITH 6 INCHES OF ORGANIC MULCH TO MINIMIZE SOIL COMPACTION.
- WHERE ANY OF THE ABOVE EXCEPTIONS RESULT IN DAMAGE TO THE FINE, WATER ABSORBING ROOTS, SUPPLEMENTAL WATERING SHALL BE REQUIRED:
 - TREES SHALL BE WATERED ONCE EVERY TWO WEEKS DURING PERIODS OF HOT, DRY WEATHER.
 - TREE CROWNS ARE TO BE SPRAYED WITH WATER PERIODICALLY TO REDUCE DUST ACCUMULATION ON LEAVES.
 - A SIGNED WATERING CONTRACT SHALL BE REQUIRED.
- PRIOR TO EXCAVATION OR GRADE CUTTING WITHIN TREE DRIPLINES, A CLEAN CUT SHALL BE MADE BETWEEN THE DISTURBED AND UNDISTURBED ROOT ZONES WITH A ROCK SAW OR SIMILAR EQUIPMENT

- TO MINIMIZE DAMAGE TO REMAINING ROOTS.
- ALL GRADING WITHIN PROTECTED ROOT ZONE AREAS SHALL BE DONE BY HAND OR WITH SMALL EQUIPMENT TO MINIMIZE ROOT DAMAGE. PRIOR TO GRADING, RELOCATE PROTECTIVE FENCING TO 2 FEET BEHIND THE GRADE CHANGE AREA.
- ANY ROOTS EXPOSED BY CONSTRUCTION ACTIVITY SHALL BE PRUNED FLUSH WITH THE SOIL. BACKFILL ROOT AREAS WITH GOOD QUALITY TOP SOIL. IF EXPOSED ROOT AREAS ARE NOT BACKFILLED WITHIN 2 DAYS, COVER THEM WITH ORGANIC MATERIAL IN A MANNER WHICH REDUCES SOIL TEMPERATURE AND MINIMIZES WATER LOSS DUE TO EVAPORATION.
- WHEN INSTALLING CONCRETE ADJACENT TO THE ROOT ZONE OF A TREE, USE A PLASTIC VAPOR BARRIER BEHIND THE CONCRETE TO PROHIBIT LEACHING OF LIME INTO THE ROOT ZONE.
- ANY TRENCHING SHALL BE AS FAR FROM EXISTING TREE TRUNKS AS POSSIBLE. TRENCH LINES SHALL NOT RUN WITHIN THE CRZ. BORING, TUNNELING OR OTHER TECHNIQUES MAY BE APPROVED BY THE CITY ARBORIST OR ADMINISTRATOR IF THERE IS NO ALTERNATIVE AVAILABLE.
- NO LANDSCAPE TOPSOIL DRESSING GREATER THAN FOUR (4) INCHES SHALL BE PERMITTED WITHIN THE DRIPLINE OR CRZ, WHICHEVER IS GREATER, OF TREES. NO TOPSOIL IS PERMITTED ON ROOT FLARES

- OR WITHIN 6 INCHES OF TREE TRUNKS. PRUNING TO PROVIDE CLEARANCE FOR STRUCTURES, VEHICULAR TRAFFIC AND CONSTRUCTION EQUIPMENT SHALL TAKE PLACE BEFORE CONSTRUCTION BEGINS. ALL PRUNING MUST BE DONE ACCORDING TO CITY STANDARDS AND AS OUTLINED IN LITERATURE PROVIDED BY THE INTERNATIONAL SOCIETY OF ARBORICULTURE (IS A PRUNING TECHNIQUES).
- ALL OAK TREE CUTS, INTENTIONAL OR UNINTENTIONAL, SHALL BE PAINTED IMMEDIATELY (WITHIN 10 MINUTES). TREE PAINT MUST BE KEPT ON SITE AT ALL TIMES. ALL PRUNING OR CUTTING TOOLS MUST BE STERILIZED BETWEEN TREES TO PREVENT THE SPREAD OF DISEASE.
- TREES APPROVED FOR REMOVAL SHALL BE REMOVED IN A MANNER WHICH DOES NOT IMPACT TREES TO BE PRESERVED. REFER TO THE CITY OF PFLUGERVILLE TREE TECHNICAL MANUAL FOR APPROPRIATE REMOVAL METHODS.
- DEVIATIONS FROM THE ABOVE NOTES MAY BE CONSIDERED ORDINANCE VIOLATIONS IF THERE IS SUBSTANTIAL NONCOMPLIANCE OR IF A TREE SUSTAINS DAMAGE AS A RESULT.

LEGEND

- PROPOSED CUTS
- PROPOSED FILLS

TREE TABLE			
PT. #	DESCRIPTION	CONDITION	CONSTRUCTION ACTION
5	9" PVC RED CEDAR	GOOD	NONE
6	9" PVC RED CEDAR	GOOD	NONE
7	9" PVC OAK	GOOD	NONE
30	8" PVC BOIS D'ARC	GOOD	PROTECT

DATE: APRIL 2, 2018
DRAWN BY: MKS
DESIGNED BY: JTH
CHECKED BY: WAM
APPROVED BY: WAM
PROJECT NO: 20101353
FIRM NO: F-13162

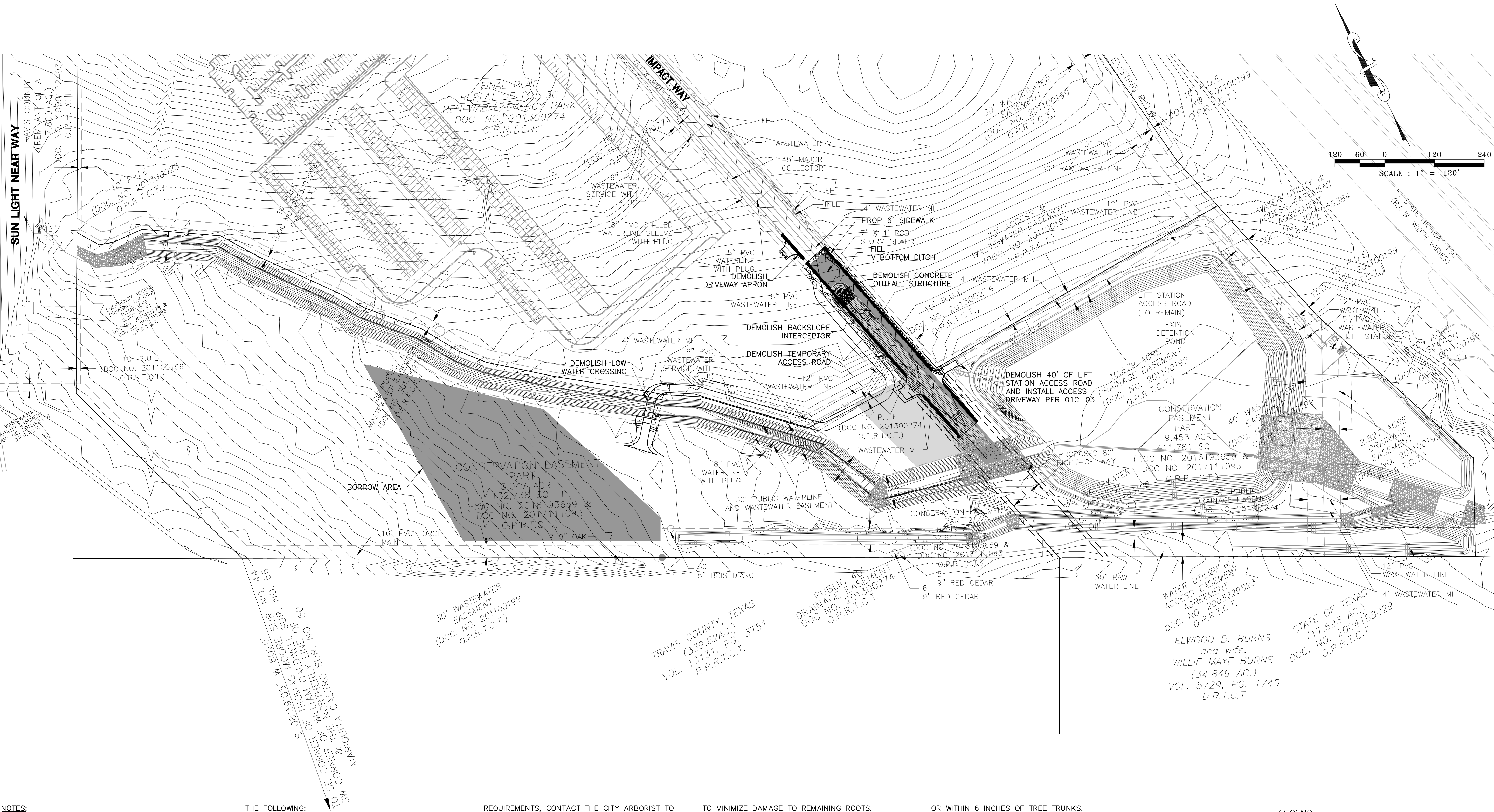
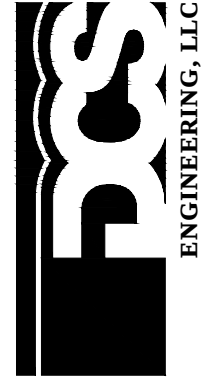
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01C-02

PFLUGERVILLE COMMUNITY
DEVELOPMENT CORPORATION
SH 130 COMMERCE CENTER - PHASE III
(FORMERLY KNOWN AS
RENEWABLE ENERGY PARK)
REVISED PRELIMINARY PLAN

PRELIMINARY PLAN

EXISTING CONDITIONS, PROPOSED GRADING
PLAN, DEMOLITION PLAN, AND TREE SURVEY

DOS ENGINEERING, LLC
A MEMBER OF THE
HARRIS GROUP OF TEXAS
HIGHWAY BUILDING G-100
AUSTIN, TX 78746
TEL: (512) 614-6171
FAX: (512) 284-8021
T.B.P.E. FIRM NO. F-13162



120 60 0 120 240
SCALE : 1" = 120'

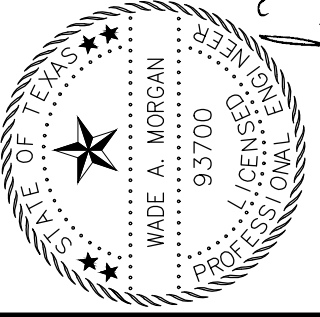
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(R.O.W. WIDTH VARIES)

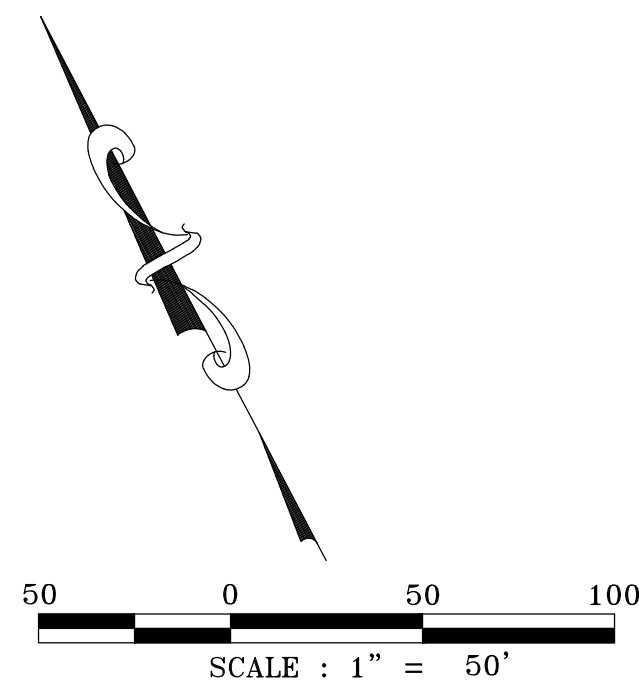
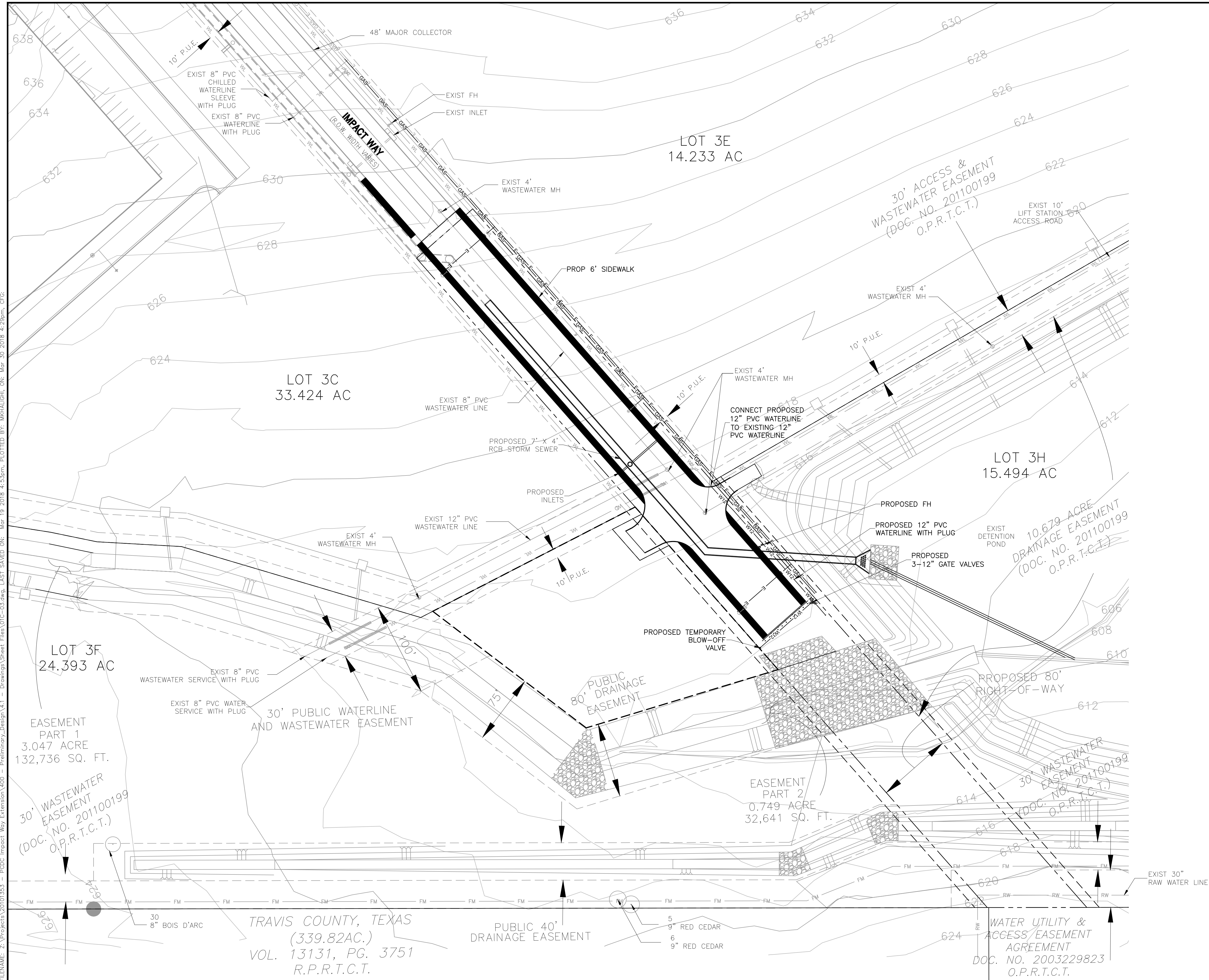
TRAVIS COUNTY, TEXAS
(339.82AC.)
VOL. 13131, PG. 3751
R.P.R.T.C.T.

PUBLIC 40' DRAINAGE EASEMENT
DOC NO. 201300274
O.P.R.T.C.T.

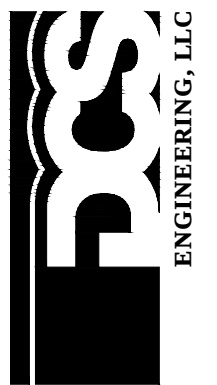
ELWOOD B. BURNS
and wife,
WILLIE MAYE BURNS
(34.849 AC.)
VOL. 5729, PG. 1745
D.R.T.C.T.

STATE OF TEXAS
(17.693 AC.)
DOC. NO. 2004188029
O.P.R.T.C.T.





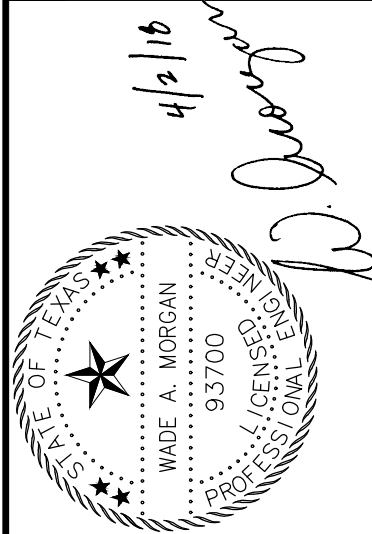
DCS ENGINEERING, LLC
1101 S. CAPITAL OF TEXAS
HIGHWAY, BUILDING G-100
AUSTIN, TX 78746
TEL: (512) 614-6171
FAX: (512) 284-8021
T.B.P.E. FIRM NO. F-13162



PRELIMINARY PLAN

WATER & WASTEWATER UTILITY PLAN

**PFLUGERVILLE COMMUNITY
DEVELOPMENT CORPORATION**
SH 130 COMMERCE CENTER - PHASE III
(FORMERLY KNOWN AS
RENEWABLE ENERGY PARK)
REVISED PRELIMINARY PLAN



DATE: APRIL 2, 2018
DRAWN BY: MKS
DESIGNED BY: JTH
CHECKED BY: WAM
APPROVED BY: WAM
PROJECT NO: 2010133
FIRM NO: F-13162

DRAWING
01C-03

FILENAME: Z:\Projects\20101353 - PGDC Impact Way Extension\400 - Preliminary Design\4.1 - Drawings\Sheet Files\01C-04.dwg, LAST SAVED ON: Mar 26 2018 3:21pm, PLOTTED BY: MKHAUGH, ON: Mar 30 2018 4:29pm, CFG:

HEC-1 HYDROLOGIC SUMMARY			
AREA NAME	U3b	U4	
DRAINAGE AREA (ac)	48.45	29.95	
CN #	94.2	88.2	
DEVELOPED IMPERVIOUS COVER	80%	80%	
Tc (hrs)	0.18	0.08	
LAG TIME (hrs) T _L =0.6T _c	0.11	0.05	
2 YEAR DISCHARGE	125.9	72	
25 YEAR DISCHARGE	297	192.1	
100 YEAR DISCHARGE	400	264.2	

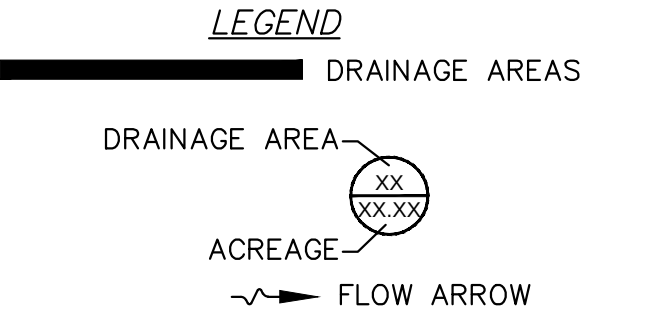
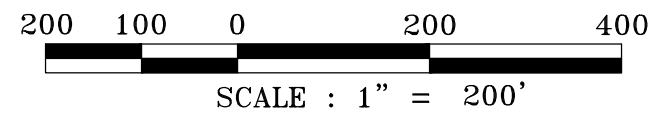
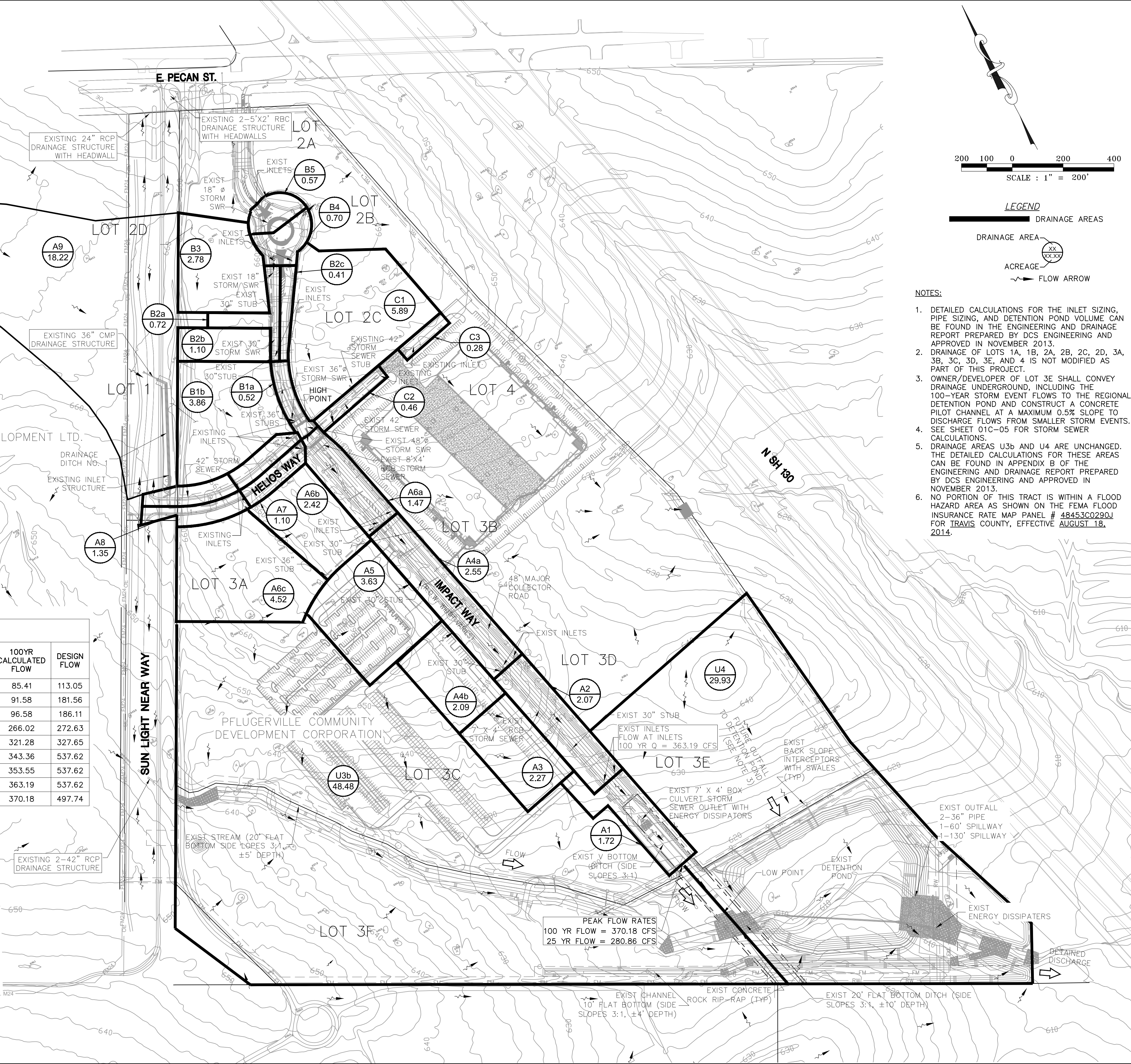
FLOW TABLE								
DRAINAGE	ACREAGE	RUNOFF COEFFICIENT	TC. (MIN)	25YR INTENSITY	25YR CALCULATED FLOW	100YR INTENSITY	100YR CALCULATED FLOW	DESIGN FLOW
A-9	18.22	0.82	37	4.32	64.73	5.71	85.41	113.05
A-8	1.35	0.92	37.7	4.27	69.16	5.66	91.58	181.56
A-7	1.10	0.92	38.2	4.23	72.73	5.62	96.58	186.11
A-6	8.41	0.84	39.1	4.22	204.8	5.61	266.02	272.63
A-5	3.63	0.91	39.5	4.12	245.68	5.51	321.28	327.65
A-4	4.64	0.93	40.2	4.07	261.78	5.46	343.36	537.62
A-3	2.27	0.94	40.7	4.03	269.03	5.41	353.55	537.62
A-2	2.07	0.92	40.9	4.01	276.04	5.39	363.19	537.62
A-1	1.72	0.92	41.5	3.97	280.86	5.35	370.18	497.74

NOTES:

IF SEVERAL SUB-DRAINAGE AREAS ENTER THE TRUNK LINE OF THE STORM SEWER SYSTEM AT ONE POINT, (i.e. A6a, A6b, AND A6c), THEN THE PRIMARY DRAINAGE AREA (i.e. A-6) IN THE FLOW TABLE IS THE SUM OF ALL OF THESE SUB-AREAS AND A COMPOSITE RUNOFF COEFFICIENT WAS USED.

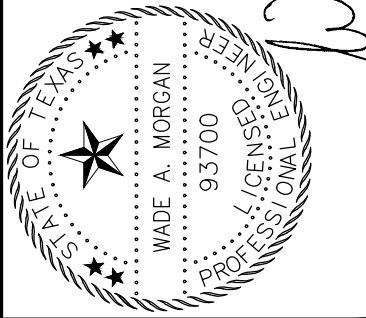
TIME OF CONCENTRATION FORMULAS AND SAMPLE CALCULATION FOR DRAINAGE AREA A-9:

T_L(SHEET) = (Ln)/(425^{0.5})
T_L(SHEET) = (150' X 0.1)/(42 X 0.009^{0.5}) = 3.765 MIN
T_L(SHALLOW CONCENTRATED) = (Ln)/605^{0.5}
T_L(SHALLOW CONCENTRATED) = (1769' X 0.1)/(60 X 0.009^{0.5}) = 31.078 MIN
T_L(CHANNEL) = L/60V
T_L(CHANNEL) = 420'/(60 X 3.18 FPS) = 2.201 MIN
T_c = T_L(SHEET) + T_L (SHALLOW CONCENTRATED) + T_L (CHANNEL)
T_c = 3.765 + 31.078 + 2.201 = 37.044 MIN



- NOTES:
1. DETAILED CALCULATIONS FOR THE INLET SIZING, PIPE SIZING, AND DETENTION POND VOLUME CAN BE FOUND IN THE ENGINEERING AND DRAINAGE REPORT PREPARED BY DCS ENGINEERING AND APPROVED IN NOVEMBER 2013.
 2. DRAINAGE OF LOTS 1A, 1B, 2A, 2B, 2C, 2D, 3A, 3B, 3C, 3D, 3E, AND 4 IS NOT MODIFIED AS PART OF THIS PROJECT.
 3. OWNER/DEVELOPER OF LOT 3E SHALL CONVEY DRAINAGE UNDERGROUND, INCLUDING THE 100-YEAR STORM EVENT FLOWS TO THE REGIONAL DETENTION POND AND CONSTRUCT A CONCRETE PILOT CHANNEL AT A MAXIMUM 0.5% SLOPE TO DISCHARGE FLOWS FROM SMALLER STORM EVENTS.
 4. SEE SHEET 01C-05 FOR STORM SEWER CALCULATIONS.
 5. DRAINAGE AREAS U3b AND U4 ARE UNCHANGED. THE DETAILED CALCULATIONS FOR THESE AREAS CAN BE FOUND IN APPENDIX B OF THE ENGINEERING AND DRAINAGE REPORT PREPARED BY DCS ENGINEERING AND APPROVED IN NOVEMBER 2013.
 6. NO PORTION OF THIS TRACT IS WITHIN A FLOOD HAZARD AREA AS SHOWN ON THE FEMA FLOOD INSURANCE RATE MAP PANEL # 48453C0290J FOR TRAVIS COUNTY, EFFECTIVE AUGUST 18, 2014.

PFLUGERVILLE COMMUNITY
DEVELOPMENT CORPORATION
SH 130 COMMERCE CENTER - PHASE III
(FORMERLY KNOWN AS
RENEWABLE ENERGY PARK)
REVISED PRELIMINARY PLAN



DATE: APRIL 2, 2018
DRAWN BY: MKS
DESIGNED BY: JTH
CHECKED BY: WAM
APPROVED BY:WAM
PROJECT NO: 20101353
FIRM NO: F-13162

DRAWING
01C-04

DCS ENGINEERING, LLC
2400 W. WILSON BLVD., SUITE 100
AUSTIN, TX 78746
TEL: (512) 614-6171
FAX: (512) 284-8021
T.B.P.E. FIRM NO. F-13162

ENGINEERING, LLC

PRELIMINARY PLAN
EXISTING OVERALL DRAINAGE AREA
MAP AND CALCULATIONS

FILENAME: Z:\Projects\20101353 - PCDC Impact Way Extension\400 - Preliminary Design\4.1 - Drawings\Sheet Files\01C-05.dwg, LAST SAVED ON: Mar 19 2018 4:48pm, PLOTTED BY: MKHAUGH, ON: Mar 30 2018 4:30pm, CFG.

STORM SEWER CALCULATIONS
DCS ENGINEERING , INC.

CLIENT NAME:
PROJECT NAME: PCDC 130 Commerce Center - Phase II
DCS JOB NO: 20101250
DATE PRINTED: 2/9/2018
DATE REVISED: 5/30/2013 BY: C. DUDLEY

SELECT STORM EVENT FREQUENCY: 100 year
SELECT APPROPRIATE LAND USE: Commercial Services (2-7% Impervious)
ENTER DESIGN CURB HEIGHT (inches): 6

Line	Manhole or		Reach	Diameter	Span (inches)	No. of Barrels	Pipe Material	Pipe	Area (acres)	Runoff	Runoff	Length of	Length of	Sum of	Runoff	Sum of	Subbasin	T.C. (min.)	Intensity (in./hr.)	Sum of Flows (cfs)	Design		Actual	Hydraulic
	Inlet Number U / S	D / S	Length (feet)	or Rise (inches)				Grade (%)		Surface Type	Surface Slope (ft/ft)	Sheetflow (ft)	Concentrated flow (ft)	Area (acres)	Coefficient C	C x Area (acres)	T.C. (min.)				Flow (cfs)	Velocity (fps)	Velocity (fps)	Gradient (%)
A	SET	I-1	64.0	42		1	RCP	1.070%	18.22	0-50% Veg.	0.009	300.00	1769.00	18.22	0.82	14.94	34.8	37.0	5.72	85.41	113.05	11.75	8.88	0.611%
A	I-1	I-2	286.0	42		1	RCP	1.280%	0.00	Concrete	1.000	0.00	0.00	18.22	0.92	14.94	5.0	37.0	5.72	85.41	123.64	12.85	8.88	0.611%
A	I-2	I-3	283.0	42		1	RCP	2.760%	1.35	Concrete	1.000	0.00	0.00	19.57	0.92	16.18	5.0	37.0	5.72	92.51	181.56	18.87	9.62	0.716%
A	I-3	I-4	58.0	42		1	RCP	2.900%	1.10	Concrete	1.000	0.00	0.00	20.67	0.92	17.19	5.0	37.0	5.72	98.29	186.11	19.34	10.22	0.809%
A	I-4	7	115.0	48	96	1	RCB	0.900%	0.00	Concrete	1.000	0.00	0.00	20.67	0.97	17.19	5.0	37.0	5.72	282.74	455.68	14.65	9.09	0.346%
A	7	6	339.0	48	84	1	RCB	0.450%	0.00	Concrete	1.000	0.00	0.00	20.67	0.84	17.19	5.0	37.0	5.72	282.74	272.63	10.06	10.43	0.484%
A	6	5	274.0	48	84	1	RCB	0.580%	8.41	Concrete	1.000	0.00	0.00	29.08	0.84	24.26	5.0	37.0	5.72	323.12	309.51	11.42	11.92	0.632%
A	5	4	473.0	48	84	1	RCB	0.650%	3.63	Concrete	1.000	0.00	0.00	32.71	0.91	27.56	5.0	37.0	5.72	342.00	327.65	12.09	12.61	0.708%
A	4	3	414.0	48	84	1	RCB	1.750%	4.64	Concrete	1.000	0.00	0.00	37.35	0.93	31.88	5.0	37.0	5.72	366.67	537.62	19.83	13.52	0.814%
A	3	2	188.0	48	84	1	RCB	1.750%	2.27	Concrete	1.000	0.00	0.00	39.62	0.94	34.01	5.0	37.0	5.72	378.87	537.62	19.83	13.97	0.869%
A	2	1	431.0	48	84	1	RCB	1.750%	2.07	Concrete	1.000	0.00	0.00	41.69	0.92	35.92	5.0	37.0	5.72	389.76	537.62	19.83	14.38	0.920%
A	1	OF	333.0	48	84	1	RCB	1.500%	1.72	Concrete	1.000	0.00	0.00	43.41	0.92	37.50	5.0	37.0	5.72	398.79	497.74	18.36	14.71	0.963%
C	3	2	187.0	18		1	RCP	0.500%	0.28	Concrete	0.020	150.00	400.00	0.28	0.92	0.26	5.0	5.0	12.54	3.27	8.07	4.57	1.85	0.082%
C	2	1	85.0	18		1	RCP	0.730%	0.46	Concrete	1.000	0.00	0.00	0.74	0.92	0.68	5.0	5.0	12.54	8.52	9.75	5.52	4.82	0.557%
C	1	I-4	237.0	42		1	RCP	0.500%	5.89	Concrete	1.000	0.00	0.00	6.63	0.82	5.51	5.0	5.0	12.54	69.11	77.28	8.03	7.18	0.400%
B	5	4	213.0	18		1	RCP	0.400%	0.57	Concrete	1.000	75.00	0.00	0.57	0.97	0.55	5.0	5.0	12.54	6.94	7.22	4.08	3.93	0.370%
B	4	3	204.0	18		1	RCP	2.000%	0.70	Concrete	1.000	0.00	0.00	1.27	0.97	1.23	5.0	5.0	12.54	15.41	16.14	9.13	8.72	1.823%
B	3	2	167.0	30		1	RCP	2.100%	2.78	Concrete	1.000	0.00	0.00	4.05	0.82	3.51	5.0	5.0	12.54	44.00	64.57	13.15	8.96	0.975%
B	2	1B	122.0	36		1	RCP	1.480%	2.23	Concrete	1.000	0.00	0.00	6.28	0.90	5.51	5.0	5.0	12.54	69.18	88.14	12.47	9.79	0.912%
B	1B	1A	81.0	42		1	RCP	0.400%	1.89	Concrete	1.000	0.00	0.00	8.17	0.84	7.10	5.0	5.0	12.54	89.10	69.12	7.18	9.26	0.665%
B	1A	1	45.0	48		1	RCP	2.090%	0.00	Concrete	1.000	0.00	0.00	8.17	0.84	7.10	5.0	5.0	12.54	89.10	225.57	17.95	7.09	0.326%
B	1	I-4	75.0	48		1	RCP	2.090%	2.49	Concrete	1.000	0.00	0.00	10.66	0.84	9.19	5.0	5.0	12.54	115.34	225.57	17.95	9.18	0.546%
D	2	1	267.0	36		1	RCP	2.370%	6.94	Concrete	1.000	0.00	0.00	6.94	0.84	5.83	5.0	5.0	12.54	73.13	111.54	15.78	10.35	1.019%
D	1	I-4	18.9	36		1	RCP	2.420%	0.00	Concrete	1.000	0.00	0.00	6.94	0.84	5.83	5.0	5.0	12.54	73.13	112.71	15.94	10.35	1.019%

PROPOSED
INLETS

Notes:

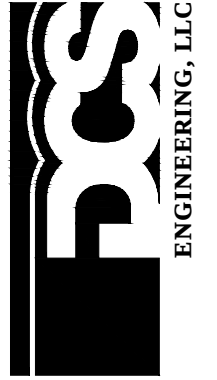
- This spreadsheet has been developed using the City of Austin criteria outlined in the March 2012 Drainage Criteria Manual, except as noted. The Rational Method has been used to calculate flows, and Manning's Equation for pipes flowing full has been used to calculate velocities.
- Pipe grades are initially calculated to achieve a minimum full pipe flow velocity of 3 fps. The user may input other pipe slopes as necessary for the given application.
- This spreadsheet uses the full pipe cross-sectional area to calculate the "Actual Velocity" based on the flow in the system. This approximation will generally result in a slower velocity. The actual flow velocity of pipes flowing partially full should be checked before finalizing any design.
- The "Time of Concentration" (TC) is calculated assuming per the method outlined in the City of Austin Drainage Criteria Manual (DCM). Per the DCM, overland flow distance is limited to 150 feet in developed areas and the minimum TC is 5 minutes. The Manning's roughness coefficients used in the TC calculations are as provided in the DCM.
- Junction losses are calculated omitting increased flow velocity in the downstream pipe (i.e., $V_1 = V_2$)
- Land use "SFR" represents Single-Family Residential development. Land use "MFR" represents Multi-Family Residential development.
- Design flow and velocity are based entirely on pipe grade and represent the condition when pipe is flowing full with the hydraulic grade line equal to the pipe grade, and are used to demonstrate that the pipe slopes used in the calculations are adequate.
- The "Junction Loss" is applied to the downstream HGL of a pipe to correct for any losses through the downstream manhole and used the velocity of the downstream pipe for calculation. The "Minor Losses" are applied to the upstream HGL to correct for any bends or other interruptions between the manholes. See Figures below for a summary of loss coefficients (k).
- Rational method "C" values are from Table 2-1 from the City of Austin Drainage Criteria Manual and are for general analysis only. Detail coefficient weighting may be more applicable to many projects.

Runoff Coefficient Table	
Land Use	C
SFR (0-2% Impervious)	0.4
SFR (2-7% Impervious)	0.6
SFR (7+% Impervious)	0.66
MFR (0-2% Impervious)	0.65
MFR (2-7% Impervious)	0.76
MFR (7+% Impervious)	0.79
Commercial and General Office (0-2% Impervious)	0.8
Commercial and General Office (2-7% Impervious)	0.85
Commercial and General Office (7+% Impervious)	0.87
Commercial Services (0-2% Impervious)	0.95
Commercial Services (2-7% Impervious)	0.94
Commercial Services (7+% Impervious)	0.94
Land Use Varies / Other	ENTER

Pipe Material	Mannings "n" Value	Pipe Description
CLAY	0.012	Extra Strength Vitrified Clay Pipe
CMP	0.024	Corrugated Metal Pipe
CMPSI	0.013	CMP w/ Smooth Interior
HDPE	0.010	High Density Polyethylene Pipe
PVC	0.010	Polyvinyl Chloride Pipe
RCA	0.012	Reinforced Concrete Arch Pipe
RCB	0.012	Reinforced Concrete Box Culvert
RCE	0.012	Reinforced Concrete Elliptical Pipe
RCP	0.012	Reinforced Concrete Pipe

Runoff Surface Type	Mannings "n" Value
Concrete	0.016
Asphalt	0.02
0-50% Veg.	0.1
50-90% Veg.	0.2
100% Medium Veg.	0.3
100% Heavy Veg.	0.6

DCS ENGINEERING, LLC
130101250
HIGHWAY BUILDING 6-100
AUSTIN, TX 78746
TEL: (512) 614-6171
FAX: (512) 284-8021
T.B.P.E. FIRM NO. F-13162



PRELIMINARY PLAN

STORM SEWER CALCULATIONS

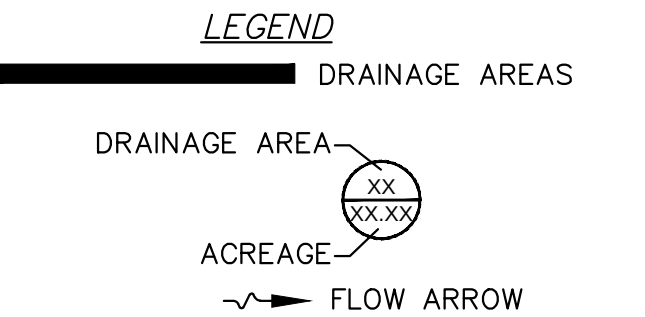
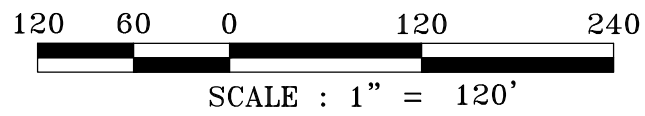
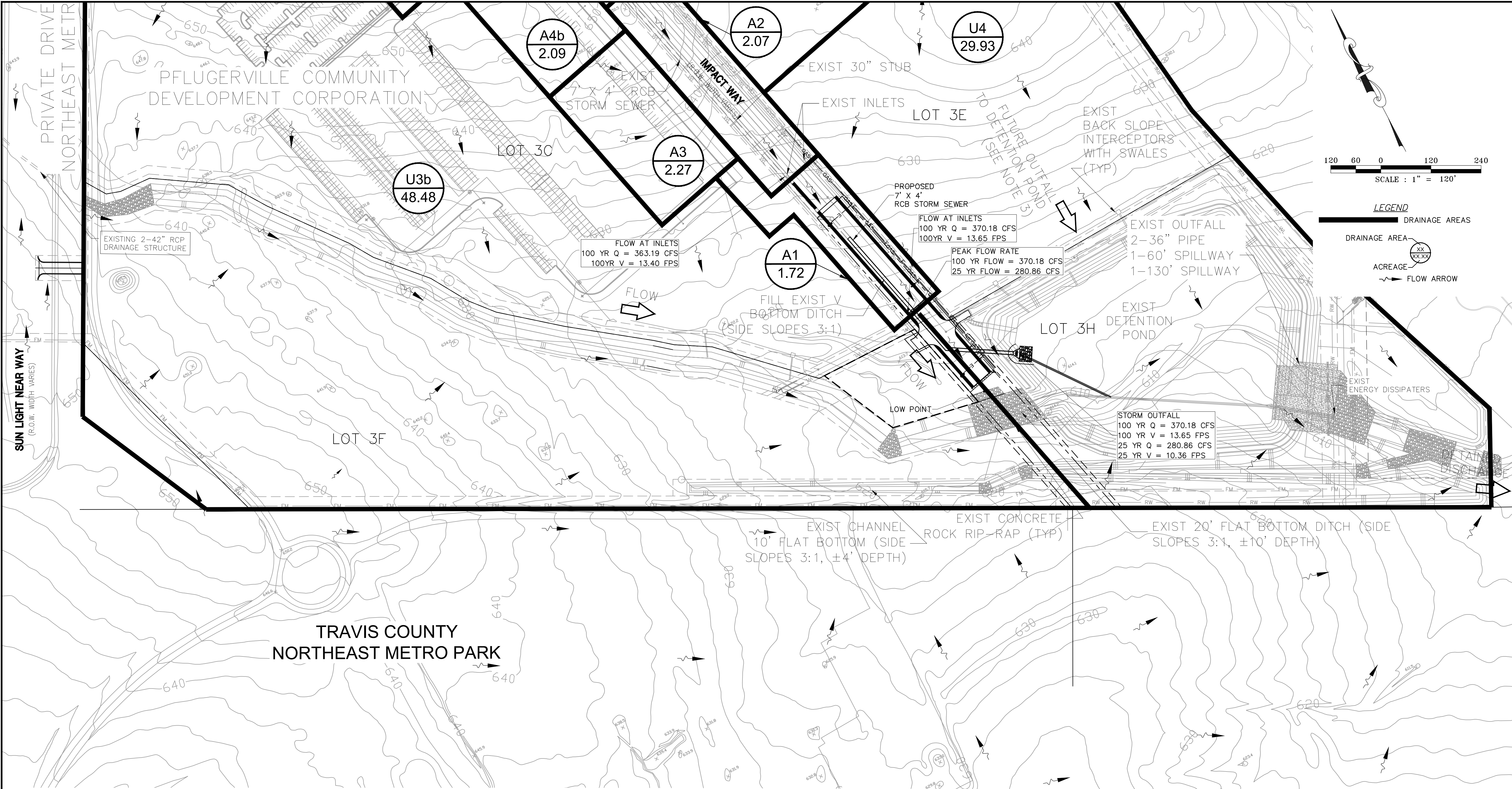
PFLUGERVILLE COMMUNITY
DEVELOPMENT CORPORATION
SH 130 COMMERCE CENTER - PHASE III
(FORMERLY KNOWN AS
RENEWABLE ENERGY PARK)
REVISED PRELIMINARY PLAN



DATE: APRIL 2, 2018
DRAWN BY: MKS
DESIGNED BY: JTH
CHECKED BY: WAM
APPROVED BY: WAM
PROJECT NO: 20101353
FIRM NO: F-13162

DRAWING
01C-05

FILENAME: Z:\Projects\20101353 - PDCO Impact Way Extension\400 - Preliminary Design\4.1 - Drawings\Sheet Files\01C-06.dwg, LAST SAVED ON: Mar 30 2018 3:11pm, PLOTTED BY: MKHAUGH, ON: Mar 30 2018 4:30pm, CFG:



FLOW TABLE								
DRAINAGE	ACREAGE	RUNOFF COEFFICIENT	TC. (MIN)	25YR INTENSITY	25YR CALCULATED FLOW	100YR INTENSITY	100YR CALCULATED FLOW	DESIGN FLOW
A-9	18.22	0.82	37	4.32	64.73	5.71	85.41	113.05
A-8	1.35	0.92	37.7	4.27	69.16	5.66	91.58	181.56
A-7	1.10	0.92	38.2	4.23	72.73	5.62	96.58	186.11
A-6	8.41	0.84	39.1	4.22	204.8	5.61	266.02	272.63
A-5	3.63	0.91	39.5	4.12	245.68	5.51	321.28	327.65
A-4	4.64	0.93	40.2	4.07	261.78	5.46	343.36	537.62
A-3	2.27	0.94	40.7	4.03	269.03	5.41	353.55	537.62
A-2	2.07	0.92	40.9	4.01	276.04	5.39	363.19	537.62
A-1	1.72	0.92	41.5	3.97	280.86	5.35	370.18	497.74

NOTES:

IF SEVERAL SUB-DRAINAGE AREAS ENTER THE TRUNK LINE OF THE STORM SEWER SYSTEM AT ONE POINT, (i.e. A6a, A6b, AND A6c), THEN THE PRIMARY DRAINAGE AREA (i.e. A-6) IN THE FLOW TABLE IS THE SUM OF ALL OF THESE SUB-AREAS AND A COMPOSITE RUNOFF COEFFICIENT WAS USED.

HEC-1 HYDROLOGIC SUMMARY		
AREA NAME	U3b	U4
DRAINAGE AREA (ac)	48.45	29.95
CN #	94.2	88.2
DEVELOPED IMPERVIOUS COVER	80%	80%
Tc (hrs)	0.18	0.08
LAG TIME (hrs) $T_L=0.6T_c$	0.11	0.05
2 YEAR DISCHARGE	125.9	72
25 YEAR DISCHARGE	297	192.1
100 YEAR DISCHARGE	400	264.2

- NOTES:**
1. DETAILED CALCULATIONS FOR THE INLET SIZING, PIPE SIZING, AND DETENTION POND VOLUME CAN BE FOUND IN THE ENGINEERING AND DRAINAGE REPORT PREPARED BY DCS ENGINEERING AND APPROVED IN NOVEMBER 2013.
 2. DRAINAGE OF LOTS 1A, 1B, 2A, 2B, 2C, 2D, 3A, 3B, 3C, 3D, 3E, AND 4 IS NOT MODIFIED AS PART OF THIS PROJECT.
 3. OWNER/DEVELOPER OF LOT 3E SHALL CONVEY DRAINAGE UNDERGROUND, INCLUDING THE 100-YEAR STORM EVENT FLOWS TO THE REGIONAL DETENTION POND AND CONSTRUCT A CONCRETE PILOT CHANNEL AT A MAXIMUM 0.5% SLOPE TO DISCHARGE FLOWS FROM SMALLER STORM EVENTS.
 4. SEE SHEET 01C-05 FOR STORM SEWER CALCULATIONS.
 5. IMPERVIOUS COVER FOR DRAINAGE AREAS U3b AND U4 ARE UNCHANGED. THE DETAILED CALCULATIONS FOR THESE AREAS CAN BE FOUND IN APPENDIX B OF THE ENGINEERING AND DRAINAGE REPORT PREPARED BY DCS ENGINEERING AND APPROVED IN NOVEMBER 2013.

DCS ENGINEERING, LLC
13000 HIGHWAY, BUILDING G-100
AUSTIN, TX 78746
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FAX: (512) 284-8021
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PRELIMINARY PLAN

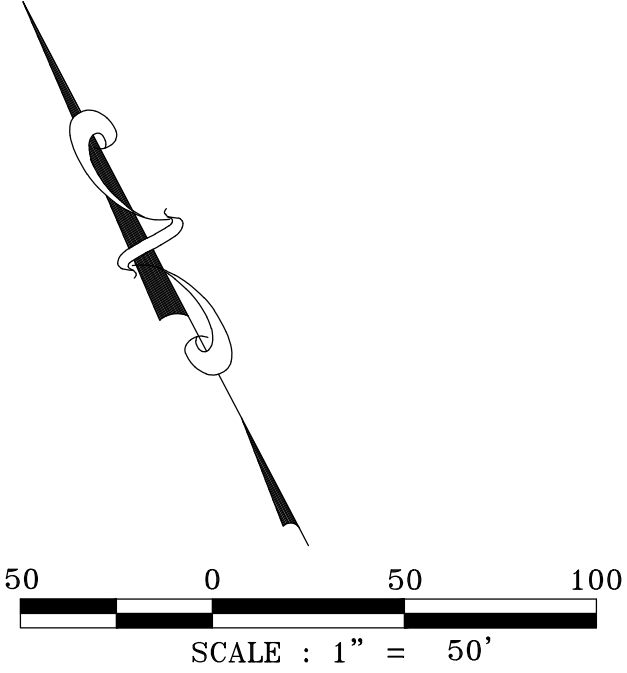
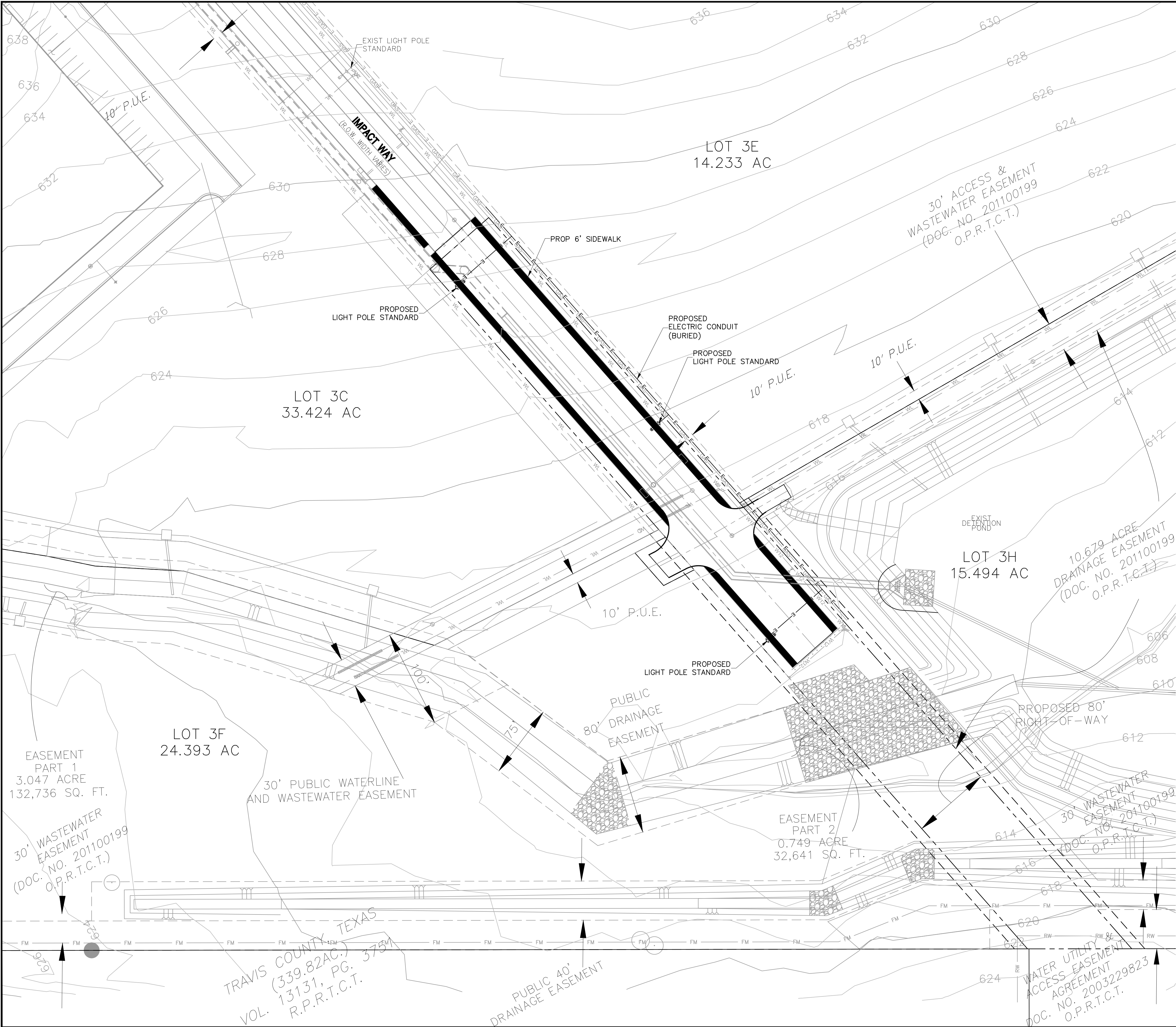
PROPOSED OVERALL DRAINAGE AREA
MAP AND CALCULATIONS

PFLUGERVILLE COMMUNITY
DEVELOPMENT CORPORATION
SH 130 COMMERCE CENTER - PHASE III
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RENEWABLE ENERGY PARK)
REVISED PRELIMINARY PLAN

DATE: APRIL 2, 2018
DRAWN BY: MKS
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DRAWING
01C-06

FILENAME: Z:\Projects\20101353 - PGDC Impact Way Extension\400 - Preliminary Design\4.1 - Drawings\Sheet Files\01C-08.dwg, LAST SAVED ON: Mar 19 2018 4:44pm, PLOTTED BY: MKHALIGHI, ON: Mar 30 2018 4:30pm, CFG.



- NOTES:
1. POUR SIDEWALK AGAINST LIGHT PEDESTAL AND INSTALL $\frac{1}{2}$ " EXPANSION BOARD BETWEEN THEM.
 2. ROUTE ELECTRICAL CONDUIT BEHIND STORM WATER INLETS AS REQUIRED.
 3. SIDEWALKS SHALL BE INSTALLED AFTER LIGHT PEDESTALS ARE POURED.
 4. CONTRACTOR SHALL STUB OUT ELECTRICAL CONDUIT FROM LIGHT POLE PEDESTAL TO BETWEEN BACK OF CURB AND SIDEWALK FOR ELECTRICAL CONNECTION.
 5. NO OVERHEAD ELECTRIC OR SIMILAR UTILITY SHALL BE PERMITTED.
 6. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF THE LOCATION OF UNDERGROUND UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATION AND AVOIDING ALL EXISTING UTILITIES BY CALLING THE 'ONE CALL' LOCATOR SERVICE AT (800) 344-8377 (DIG-TESS) OR (800) 245-4545 (TEXAS ONE CALL) AT LEAST 48 HOURS PRIOR TO CONSTRUCTION.

DOS ENGINEERING, LLC WASTEWATER ENGINEERING HIGHWAY BUILDING G-100 AUSTIN, TX 78746 TEL: (512) 614-6171 FAX: (512) 284-8021 T.B.P.E. FIRM NO. F-13162	
ENGINEERING, LLC	
PRELIMINARY PLAN PRELIMINARY ILLUMINATION PLAN	
PFLUGERVILLE COMMUNITY DEVELOPMENT CORPORATION SH 130 COMMERCE CENTER - PHASE III (FORMERLY KNOWN AS RENEWABLE ENERGY PARK) REVISED PRELIMINARY PLAN	
4/2/18 	
DATE: APRIL 2, 2018	DATE: APRIL 2, 2018
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DESIGNED BY: JTH	DESIGNED BY: JTH
CHECKED BY: WAM	CHECKED BY: WAM
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DRAWING 01C-08	