

# LEGEND

◆ BENCH MARK	LP * LIGHT POLE
⊙ BOREHOLE	—W— ELECTRIC
FH ⊙ EXISTING FIRE HYDRANT	PP-⊙ POWER POLE
—W— EXISTING WATERLINE	⊙ TREE
WM ⊙ EXISTING WATER METER	⊙ TREE
WV ⊙ EXISTING WATER VALVE	⊙ BUSH
—x— FENCE LINE	TS ⊙ TRAFFIC SIGN
GM ⊙ GAS METER	MB ⊙ MAIL BOX
GV ⊙ GAS VALVE	TMH ⊙ TELEPHONE M.H.
GP ⊙ GATE POST	—OHT— OVERHEAD TELEPHONE
—G— EXISTING GAS LINE	— — — UTILITY EASEMENT
SGCI ■ SINGLE GRATE CURB INLET	— — — SUBDIVISION R.O.W. LINE
DGCI ■ DOUBLE GRATE CURB INLET	— — — SUBDIVISION EASEMENT LINE
SSMH ⊙ SANITARY SEWER M.H.	— — — SUBDIVISION LOT LINE
SMH ⊙ STORM SEWER M.H.	— — — BUILDING LINE
TPED ⊙ TELEPHONE PEDESTAL	— — — PROPOSED WATER LINE
—SS— SANITARY SEWER	— — — PROPOSED R.O.W. LINE
—TUG— TELEPHONE UNDERGROUND	— — — LIMITS OF CONSTRUCTION
—EUG— ELECTRIC UNDERGROUND	



## THE CITY OF TULSA, OKLAHOMA CONSTRUCTION PLANS FOR DRAINAGE IMPROVEMENTS BIRD CREEK

PROJECT No. TMUA-W 22-89, 153120-C2-TO5A  
ACCOUNT Nos.: 6041-5455503-040522173120

# INDEX OF SHEETS

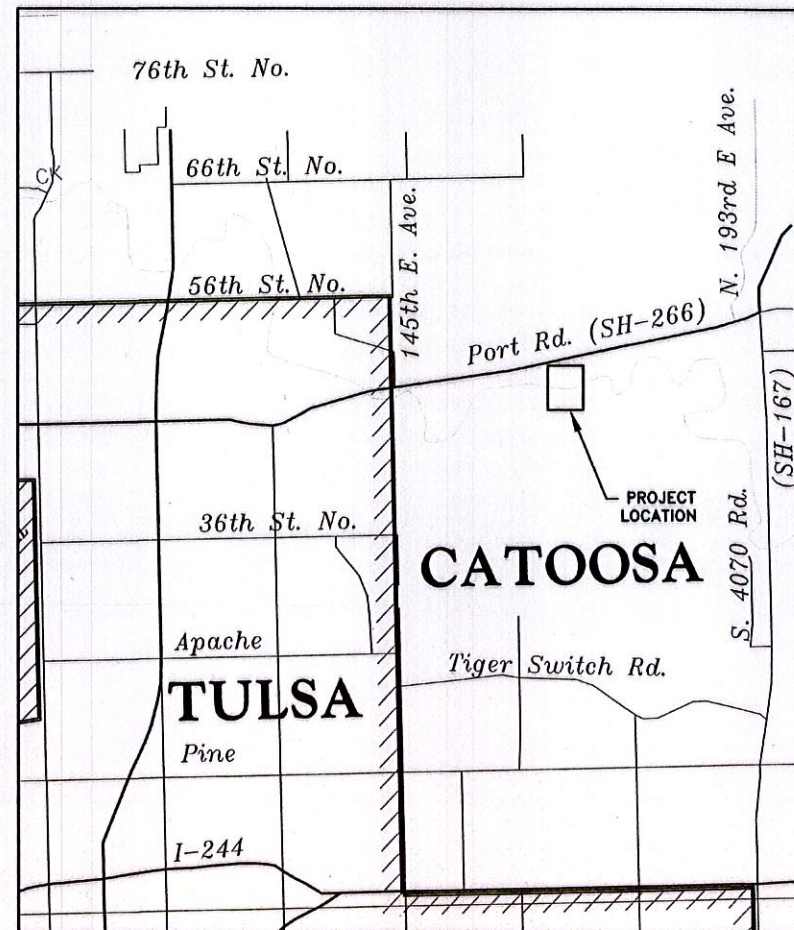
1	COVER SHEET
2	TYPICAL SECTIONS
3	PAY QUANTITIES & NOTES
4	ACCESS MAP
5	ALIGNMENT DATA
6	PLAN AND PROFILE
7	STORM WATER MANAGEMENT PLAN
8-10	CROSS SECTION

# SURVEY DATA

HORIZONTAL DATUM:	VERTICAL DATUM:
OKLAHOMA NORTH (ZONE 3501)	NAVD 1988
STATE PLANE COORDINATE SYSTEM,	SCALE FACTOR:
NAD 1983 (1993)	N/A

THE FOLLOWING CITY OF TULSA STANDARD DRAWINGS  
WILL BE USED FOR THIS PROJECT:

304 - BEDDING DETAIL - RIGID PIPE



# UTILITY CONTACTS

		NUMBER
AT&T	AL NICHOLS	918-596-4237
COX COMMUNICATIONS	BRANDON WADE	918-286-4716
OKLAHOMA NATURAL GAS CO.	JONATHAN MEADOWS	918-831-8215
AEP/PSO	ADAM FIELDS	918-250-6257
CITY OF TULSA UTILITY COORDINATOR	CHRIS KOVAC	918-596-9649
ROGERS COUNTY RWD #5	STEVE DUNAVANT	918-266-4634



ENTIRE PROJECT IS WITHIN CORPORATE LIMITS OF THE CITY OF TULSA.  
THIS PROJECT COMPLIES WITH ALL OKLA. DEPT. OF ENV. QUALITY (ODEQ) REQUIREMENTS

APPROVED BY: CLAYTON EDWARDS 6-23-22  
CLAYTON EDWARDS, P.E.  
DIRECTOR, WATER AND SEWER DEPT. DATE

APPROVED BY: PAUL ZACHARY 7/6/22  
PAUL ZACHARY, P.E.  
CITY ENGINEER DATE

ADVERTISEMENT DATE: 07.08.22

SUBMITTED BY

**GUY ENGINEERING**

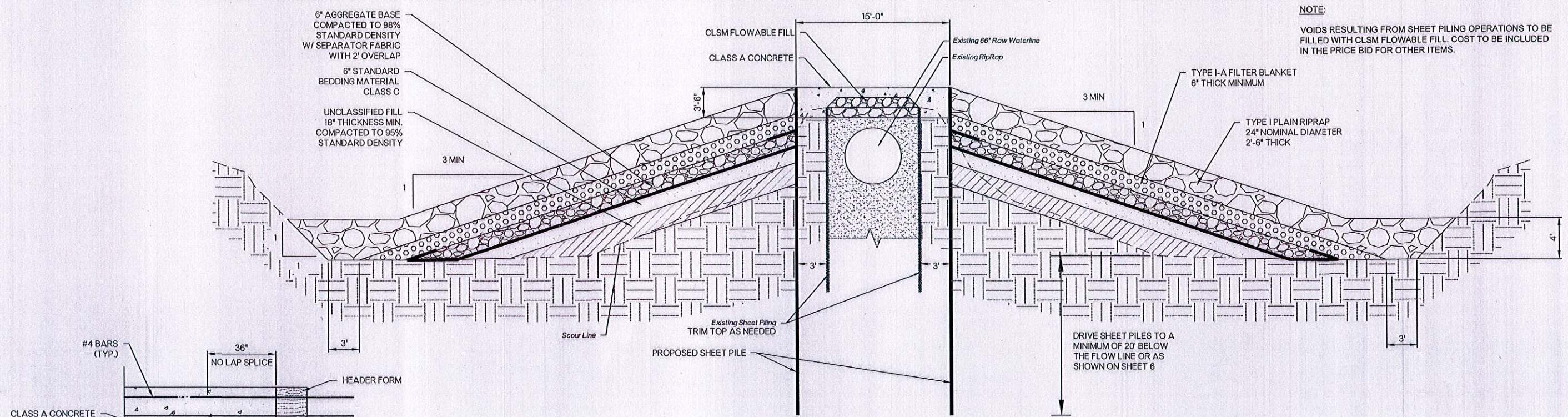
Certificate of Authorization No. 1427  
Renewal Date: June 30, 2022

Andres Becker 4-20-2022  
ANDRES BECKER, P.E. NO. 32388



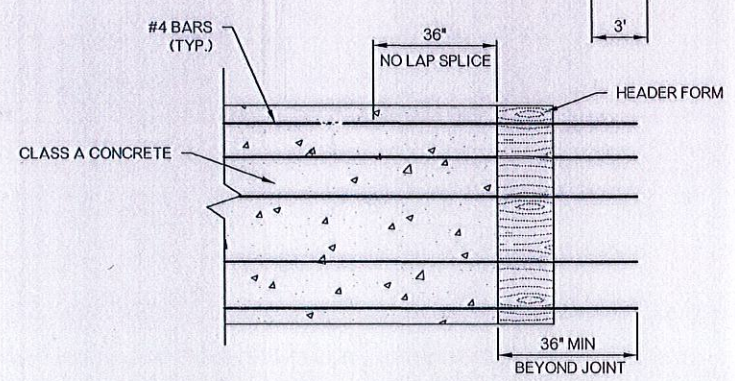


Tuesday, April 19, 2022 11:50:46 AM  
V:\16-1003E City Of Tulsa, Stormwater Design\105 Bird Ck Erosion\CMVD\Plans\1003 T05 TYPICAL SECTION.dwg



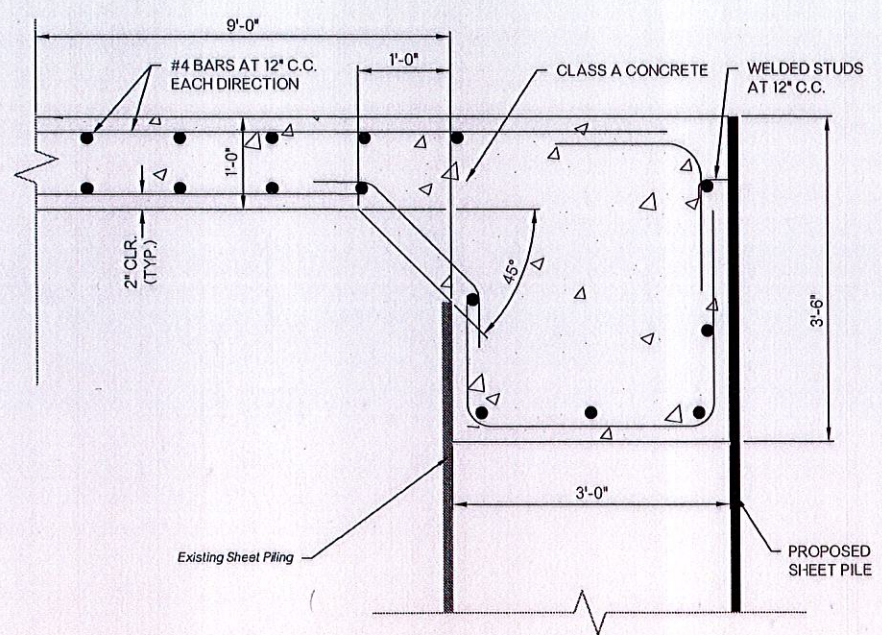
**CONCRETE CAP WITH RIP RAP EMBANKMENT**

STA. 10+50.00 TO STA. 13+25.00  
Not To Scale



**CONSTRUCTION JOINT DETAIL**

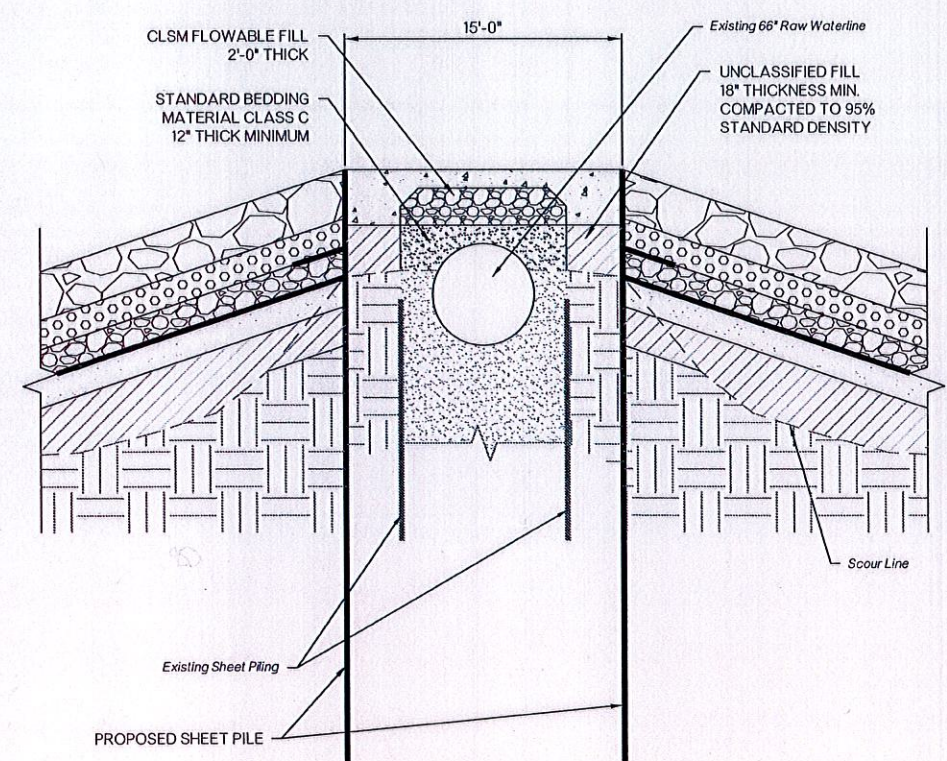
Not To Scale



**CONCRETE CAP REINFORCEMENT DETAIL**

Not To Scale

**NOTE:**  
LONGITUDINAL BARS INCLUDE FIVE 2'-0" LAPS. STAGGER LAPS. COST TO BE INCLUDED IN THE PRICE BID FOR REINFORCING STEEL. 20' MINIMUM SPACING OF CONSTRUCTION JOINTS.



**EXPOSED PIPE DETAIL**

Not To Scale



BIRD CREEK			
153120-C2			
TYPICAL SECTIONS			
CITY OF TULSA, OKLAHOMA ENGINEERING SERVICES DEPARTMENT			
GUY ENGINEERING 6910 E. 14th St. TULSA, OK 74112 (918) 437-0282 GUYengr.com			
REVISION		BY	DATE
DRAWN		BLP	04/22
DESIGNED		AB	04/22
FIELD SURVEY			
PROJECT MGR.		CHG	5/22
LEAD ENGR.		CHG	5/22
FIELD MGR.		CHG	5/22
RECOMMENDED		HAS	5-22
FILE: DRAWING:		DATE 7/8/22	
ATLAS PAGE NO. 442		SHEET 2 OF 10 SHEETS	



GENERAL CONSTRUCTION NOTES

1. ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THE 2019 OKLAHOMA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION AND THE CURRENT CITY OF TULSA ENGINEERING SERVICES DEPARTMENT'S STANDARD SPECIFICATIONS AND STANDARD DETAILS AND STANDARD DRAWINGS AND CITY OF TULSA SPECIAL PROVISIONS.
2. THE CONTRACTOR SHALL COMPLY WITH ALL FEDERAL, STATE AND LOCAL LAWS GOVERNING SAFETY, HEALTH AND SANITATION. THE CONTRACTOR SHALL PROVIDE ALL SAFEGUARDS, SAFETY DEVICES AND PROTECTIVE EQUIPMENT, AND TAKE ANY OTHER NEEDED ACTION ON AS HIS OWN RESPONSIBILITY OR AS THE ENGINEER MAY DETERMINE REASONABLY NECESSARY TO PROTECT PROPERTY IN CONNECTION WITH THE PERFORMANCE OF WORK COVERED BY THE CONTRACT.
3. PAY ITEMS SHALL BE AS SPECIFIED ON THE CITY OF TULSA OR ON THE ODOT STANDARD DRAWINGS EXCEPT AS MODIFIED BY THE CONTRACT.
4. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK IN EACH AREA. THE CONTRACTOR IS FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT RESULT FROM HIS FAILURE TO LOCATE AND PRESERVE ANY AND ALL UTILITIES.
5. THE LOCATIONS OF THE UTILITIES ARE SHOWN ACCORDING TO ALL AVAILABLE INFORMATION. THE CONTRACTOR SHALL NOTIFY EACH UTILITY OWNER PRIOR TO COMMENCEMENT OF WORK TO VERIFY BOTH HORIZONTAL AND VERTICAL LOCATIONS. THE FOLLOWING IS A LIST OF UTILITY OWNERS
6. THE CONTRACTOR SHALL GIVE THE NOTIFICATION CENTER OF OKLAHOMA ONE-CALL SYSTEM, INC. NOTICE OF ANY EXCAVATION NO SOONER THAN TEN DAYS NOR LATER THAN 48 HOURS , EXCLUDING SATURDAYS, SUNDAYS AND LEGAL HOLIDAYS, PRIOR TO THE COMMENCEMENT OF WORK. PHONE 1-800-522-6543.
7. THE CONTRACTOR SHALL PRESERVE THE INTEGRITY OF THE SANITARY SEWER STRUCTURES AND ALL OTHER UTILITY STRUCTURES WITHIN THE PROJECT EXTENTS.
8. THE CONTRACTOR SHALL NOTIFY THE CITY OF TULSA FIELD ENGINEERING, 918-596-9404, A MINIMUM OF 48 HOURS PRIOR TO COMMENCING WORK OR PRIOR TO REMOVING TRAFFIC SIGNS.
9. ALL BROKEN CONCRETE, WASTE MATERIAL, AND OTHER DEBRIS SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM THE LIMITS OF THE PROJECT AND DISPOSED OF IN A MANNER APPROVED BY THE ENGINEER. NO ADDITIONAL PAYMENT WILL BE MADE FOR THE DISPOSAL OF THIS MATERIAL.
10. ALL EXCAVATED MATERIAL NOT REQUIRED IN THE PROJECT SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF BY THE CONTRACTOR IN A MANNER ACCEPTABLE TO THE ENGINEER WITHOUT COST TO THE CITY. THE CONTRACTOR WILL BE REQUIRED TO OBTAIN AN EARTH CHANGE PERMIT IF ANY MATERIAL IS STORED ON THE PROJECT SITE AND/OR DISPOSED OF WITHIN THE CITY LIMITS.
11. ALL TREES, BRUSH AND OTHER DEBRIS THAT MIGHT INTERFERE WITH THE FLOW OF WATER IS TO BE CLEANED OUT TO THE RIGHT-OF-WAY LINE IN A MANNER APPROVED BY THE ENGINEER. ALL COST TO BE INCLUDED IN THE PRICE BID FOR OTHER ITEMS OF WORK. TREES OUTSIDE THE FILL SLOPES AND THE TOP OF CUT SLOPES SHALL NOT BE DISTURBED EXCEPT WITH THE WRITTEN APPROVAL OF THE ENGINEER.
12. WHERE MATERIALS ARE TRANSPORTED IN THE PROSECUTION OF WORK, VEHICLES SHALL NOT BE LOADED BEYOND THE CAPACITY RECOMMENDED BY THE VEHICLE MANUFACTURER OR AS PRESCRIBED BY ANY FEDERAL, STATE OR LOCAL LAW OR REGULATION.
13. CONTRACTOR IS RESPONSIBLE FOR ALL NECESSARY QUALITY CONTROL TESTING TO ENSURE THAT PROJECT REQUIREMENTS ARE MET.
14. STRAW OR HAY BALES AS STORMWATER BEST MANAGEMENT PRACTICES ARE NO LONGER ALLOWED ON CONSTRUCTION PROJECTS.
15. THE CONTRACTOR MUST CALL 1-800-458-4251 IMMEDIATELY IF A NATURAL GAS PIPELINE IS CUT, DAMAGED, OR OTHERWISE DISTURBED.
16. THE CONTRACTOR SHALL REMOVE ALL EQUIPMENT AND UNINSTALLED MATERIALS FROM THE FLOODPLAIN AT THE END OF EACH WORK DAY.
17. THE CONTRACTOR SHALL REPLACE ANY SECTION CORNERS OR OTHER PERMANENT RIGHT OF WAY MARKERS REMOVED OR DISTURBED AS A RESULT OF THE CONSTRUCTION OF THIS PROJECT. REPLACEMENT OF SECTION CORNERS OR ANY OTHER MONUMENTS SHALL BE PERFORMED BY A LICENSED SURVEYOR AUTHORIZED TO PERFORM WORK IN THE STATE OF OKLAHOMA.
18. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONTROL AND MAINTENANCE OF THE STORM WATER DRAINAGE. STORM WATER PONDING ON THE CONSTRUCTION SITE THAT IS THE RESULT OF CONSTRUCTION WILL NOT BE ALLOWED.
19. THE CONTRACTOR SHALL RESTORE ALL DISTURBED GRASS AREAS TO A CONDITION EQUAL TO OR BETTER THAN THE EXISTING CONDITION. THE CONTRACTOR SHALL REPLACE THE SOD TO MATCH IN-KIND AND QUALITY. ANY DISTURBANCE OUTSIDE THE PROPOSED CONSTRUCTION EASEMENTS SHALL BE RESTORED AT THE CONTRACTORS EXPENSE.

PAY ITEM NOTES

EARTHWORK / EROSION CONTROL / SITE PREPARATION (E1 - E11)

- E-1: ALL COSTS FOR REMOVING TREES, SHRUBS, STUMPS, POSTS, AND ALL OTHER DEBRIS AND/OR OBSTRUCTIONS NOT COVERED BY A SEPARATE PAY ITEM ARE INCLUDED IN THE PRICE BID.
- E-2 - E-5: NOT USED.
- E-6: THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTROL AND MAINTENANCE OF THE STORM WATER DRAINAGE FROM THE CONSTRUCTION SITE. STORM WATER PONDING ON THE CONSTRUCTION SITE THAT IS THE RESULT OF CONSTRUCTION WILL NOT BE ALLOWED. ALL COST ASSOCIATED WITH STORM WATER MANAGEMENT, AS WELL AS REMOVAL OF ALL SILT AND DEBRIS FROM ALL DRAINAGE STRUCTURES, STORM SEWER PIPES AND APPURTENANCES WITHIN THE PROJECT LIMITS AT END OF PROJECT, SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THIS ITEM.
- E-7: EROSION PROTECTION SHALL BE PLACED AS FOLLOWS:  
A) AROUND INLETS TO PREVENT INFLOW OF ERODED MATERIAL INTO STORM SEWER SYSTEM;  
B) IN LOCATIONS THROUGHOUT PROJECT SITE, AS DETERMINED BY THE ENGINEER, TO PREVENT WASH OF ERODED MATERIAL ONTO ADJACENT PROPERTY;  
C) FOR ENTIRE DURATION OF PROJECT, WITH MAINTENANCE AND REPLACEMENTS, AS DIRECTED BY THE ENGINEER;  
D) WITH PERIODIC REMOVAL OF SEDIMENT IN ACCORDANCE WITH STORMWATER MANAGEMENT PLAN.  
ALL COST FOR ITEMS A-D ABOVE SHALL BE INCLUDED IN UNIT PRICE BID FOR THIS ITEM.

E-8 - E-11: NOT USED.

SURFACING / STRUCTURES (S1 - S21)

- S-1: NOT USED.
- S-2: INCLUDES COMPACTION OF AGGREGATE TO 98% AASHTO T180 MODIFIED PROCTOR.
- S-3 - S-11: NOT USED.
- S-12: THE USE OF FLY-ASH IN CONCRETE IS PROHIBITED.
- S-13 - S-21: NOT USED.

REMOVAL / ADJUSTMENT (R1 - R6)

- R-1: WASTE MATERIAL TO BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM THE SITE IN A MANNER APPROVED BY THE ENGINEER.
- R-2 - R-6: NOT USED.

GENERAL (G1 - G10)

G-1 - G-10: NOT USED.

DRAINAGE (D1 - D15)

- D-1 - D-7: NOT USED.
- D-8: QUICKSET FLOWABLE FILL SHALL BE USED TO BACKFILL AROUND EXISTING RIPRAP, AS NEEDED, AT THE DIRECTION OF THE ENGINEER.
- D-9 - D-15: NOT USED.

TRAFFIC (T1 - T7)

- T-1 - T-7: NOT USED.
100. CONTRACTOR SHALL PROVIDE A CONSTRUCTION SEQUENCING PLAN FOR REVIEW TO THE CITY PRIOR TO COMMENCING CONSTRUCTION.
101. TOP OF SHEET PILE SHALL BE CUT TO MATCH THE TOP ELEVATION OF THE CONCRETE CAP.
102. EQUIPMENT AND FILL MATERIALS SHALL NOT BE STAGED ON TOP OF THE EXISTING 66" RAW WATER LINE.
103. THE COST OF MATERIALS AND INSTALLATION OF WELDED STUDS SHALL BE INCLUDED IN THE PRICE BID OF SHEET PILES.
104. ESTIMATED AT 140 LBS. PER CU. FT.
105. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING AND MAINTAINING COFFERDAMS. THE CONTRACTOR SHALL BE RESPONSIBLE OF RE-ESTABLISHING COFFERDAMS DUE TO WASHOUTS. NO ADDITIONAL PAYMENT SHALL BE MADE.

PAY QUANTITIES

ITEM NO.	SPEC NO.	DESCRIPTION	PAY NOTES	UNIT	QUANTITY
1	201(A)	CLEARING & GRUBBING	E-1	L. SUM	1
2	202(A)	MUCK EXCAVATION	R-1	C.Y.	2,707
3	202(D)	UNCLASSIFIED BORROW		C.Y.	1,452
4	220	SWPPP DOCUMENTATION AND MANAGEMENT	E-6,100,102	EA	1
5	221(C)	TEMPORARY SILT FENCE	E-7	L.F.	640
6	221(E)	TEMPORARY SILT DIKE		L.F.	640
7	230(C)	SOLID SLAB SODDING		S.Y.	1,447
8	303(A)	AGGREGATE BASE TYPE A	S-2	C.Y.	476
9	325	SEPARATOR FABRIC		S.Y.	1,406
10	501(G)	CLSM BACKFILL	D-8	C.Y.	206
11	509(B)	CLASS A CONCRETE	S-12	C.Y.	311
12	511(A)	REINFORCING STEEL		LB.	12,161
13	514(H)	SHEET PILING, FURNISHED	103	S.Y.	1,991
14	514(I)	SHEET PILING, DRIVEN	101	S.Y.	1,991
15	601(A)	TYPE I PLAIN RIPRAP	104	TON	6,360
16	601(C)	TYPE I-A FILTER BLANKET	104	TON	1,272
18	613(T)	STANDARD BEDDING MATERIAL, CLASS C		C.Y.	476
17	619(B)	REMOVAL OF EXISTING PIPE		L.F.	60
19	641	MOBILIZATION		EA	1
20	642(B)	CONSTRUCTION STAKING LEVEL II		EA	1
21	COT 307	12 INCH DIP, CL50 POLYETHYLENE WRAPPED (RJ)		L.F.	70
22	COT 312	12 INCH DUCTILE IRON 90 DEGREE BEND (RJ)		EA	1
23	SPECIAL	COFFERDAM CONSTRUCTION	100,102,105	EA	2
24	SPECIAL	OWNER ALLOWANCE		ALLOW	1
25	SPECIAL	DEWATERING		EA	1

EARTHWORK SUMMARY

STATION EXTENTS	MUCK EXCAVATION 202(A)	EMBANKMENT +15%	UNCLASSIFIED BORROW 202(D)	WASTE
	C.Y.	C.Y.	C.Y.	C.Y.
10+50.00 TO 11+50.00	988	583	583	988
11+50.00 TO 12+50.00	1,106	559	559	1,106
12+50.00 TO 13+25.00	613	310	310	613
TOTALS =	2,707	1,452	1,452	2,707



BIRD CREEK

153120-C2

PAY QUANTITIES & NOTES

CITY OF TULSA, OKLAHOMA  
ENGINEERING SERVICES DEPARTMENT

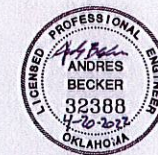
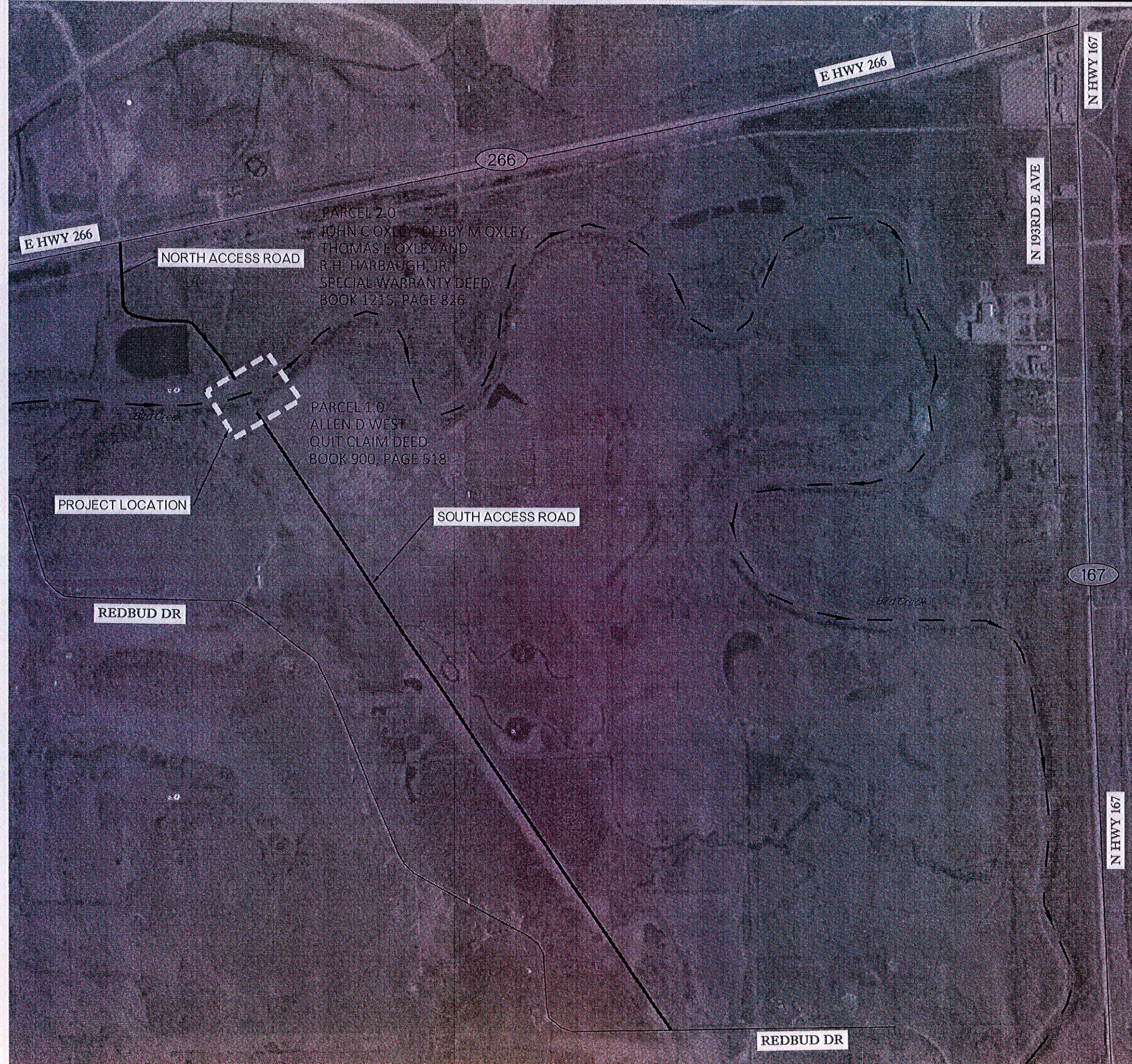
**GUYENGINEERING**

6910 E. 14th St. TULSA, OK 74112 (918) 437-0282 GUYengr.com

REVISION	BY	DATE	PLAN SCALE	DRAWN	BLP	04/22	APPROVED:
			N/A	DESIGNED	AB	04/22	
				FIELD SURVEY			
			PROFILE SCALE	PROJECT MGR.	1/16	5/22	
			HORIZONTAL	LEAD ENGR.	16/06	5/22	
			VERTICAL	FIELD MGR.	2/20	5/22	
			N/A	RECOMMENDED:			
				HAS 5-22			
			FILE:	DRAWING:		DATE	7/8/22
			ATLAS PAGE NO:442				SHEET 3 OF 10 SHEETS



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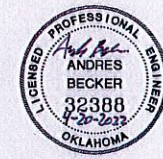
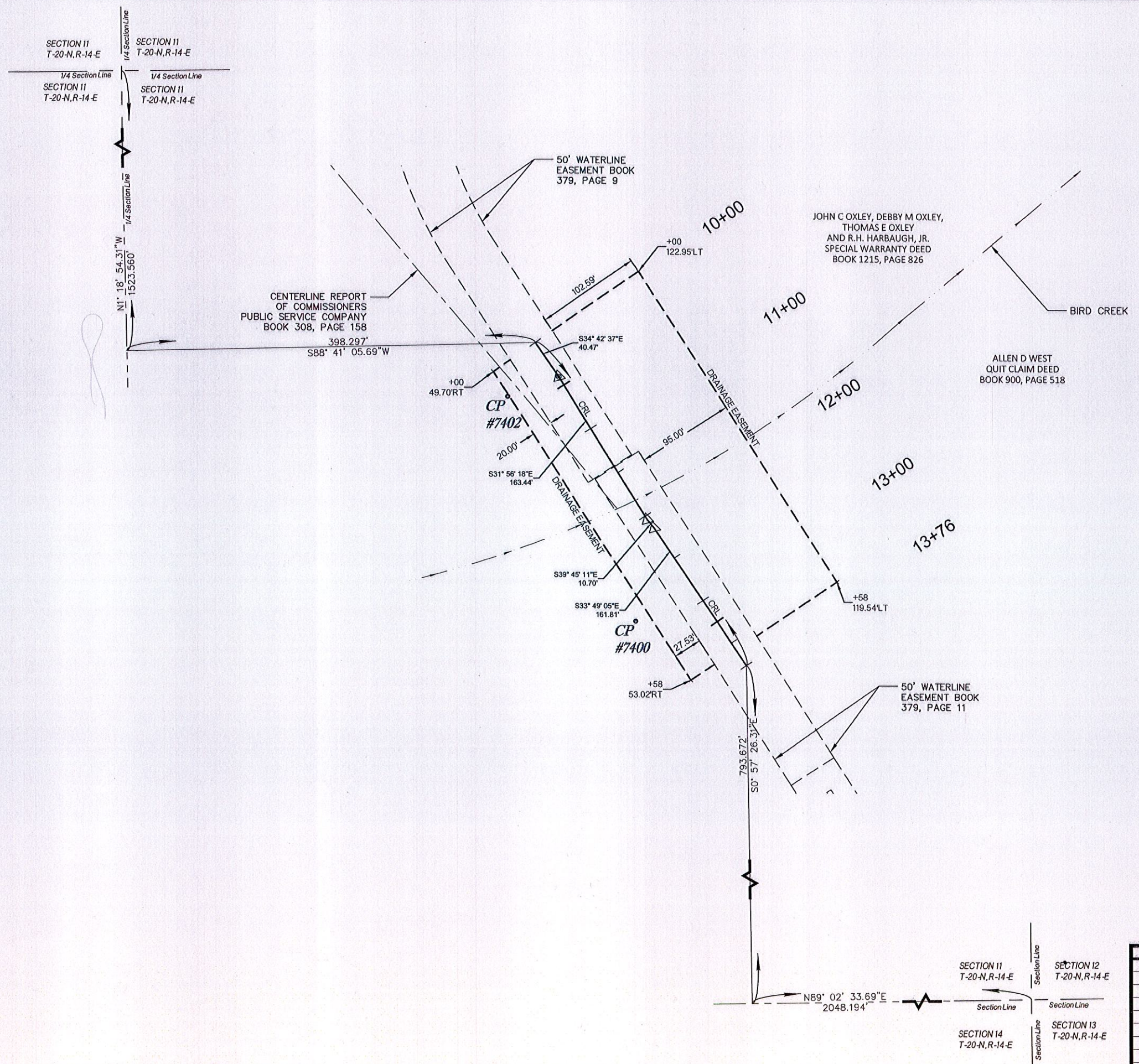


BIRD CREEK			
153120-C2			
ACCESS MAP			
CITY OF TULSA, OKLAHOMA ENGINEERING SERVICES DEPARTMENT			
<b>GUY ENGINEERING</b> 6910 E. 14th St. TULSA, OK 74112 (918) 437-0282 GUYengr.com			
REVISION	BY	DATE	APPROVED:
PLAN SCALE	DRAWN	BLP	04/22
1" = 500'	DESIGNED	AB	04/22
FIELD SURVEY	PROJECT MGR.	CHG	5/22
PROFILE SCALE	LEAD ENGR.	CHG	5/22
HORIZONTAL	FIELD MGR.	CHG	5/22
VERTICAL	RECOMMENDED	CHG	5/22
N/A			
N/A			
FILE:	DRAWING:	DATE	7/8/22
ATLAS PAGE NO: 442			SHEET 4 OF 10 SHEETS



CP - #7400  
Sta. 12+80.40, 657.3' Rt.  
CP - 3/8" IP w/ Orange Cap  
ELEV-572.28  
N-452803.041  
E-2621262.359

CP - #7402  
Sta. 10+28.03, 520.0' Rt.  
CP - 3/8" IP w/ Orange Cap  
ELEV-567.45  
N-452803.041  
E-2621262.359

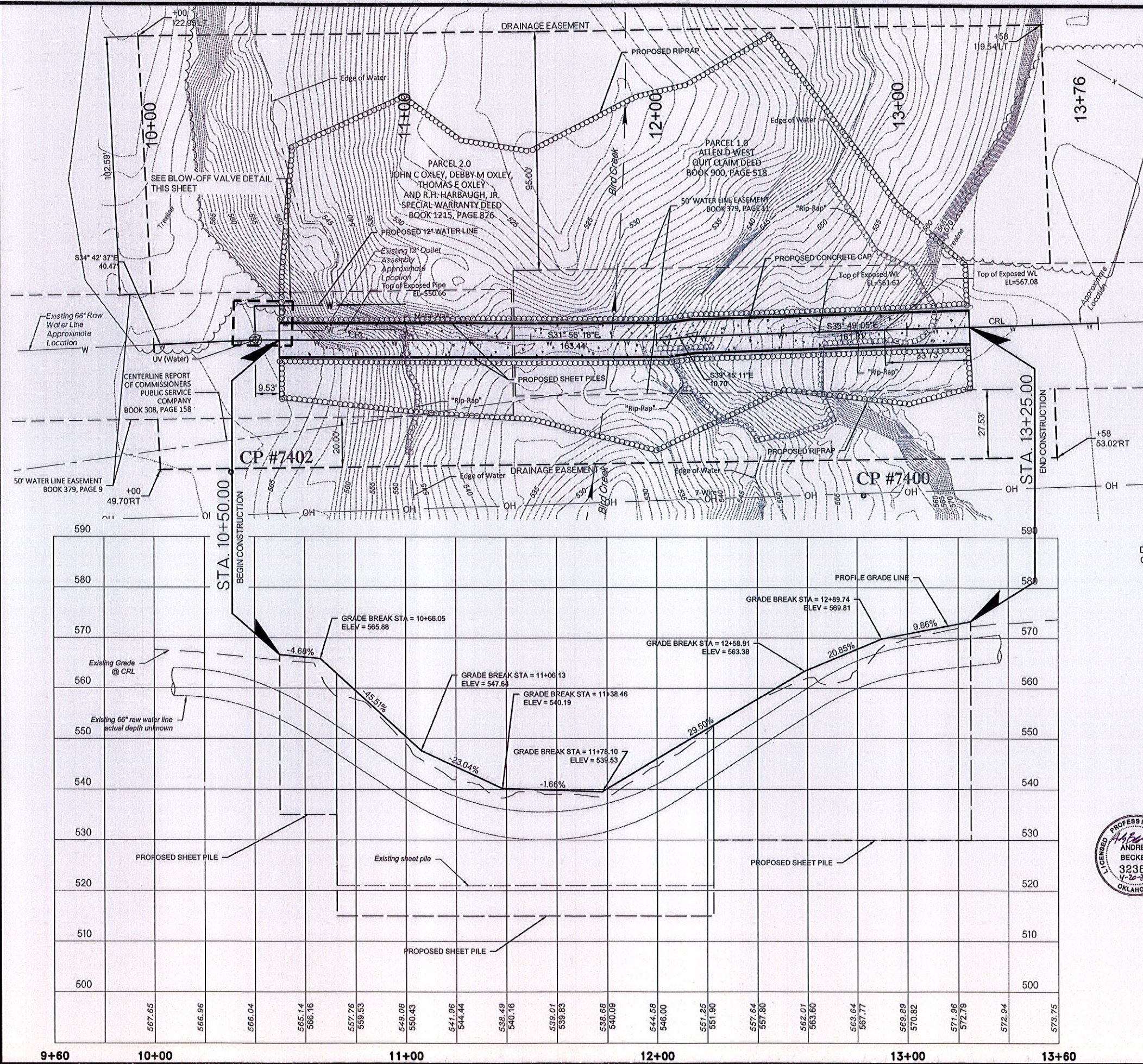


BIRD CREEK	
153120-C2	
ALIGNMENT DATA	
CITY OF TULSA, OKLAHOMA ENGINEERING SERVICES DEPARTMENT	
GUYENGINEERING 6910 E. 14th ST. TULSA, OK 74112 (918) 437-0282 GUYangr.com	
REVISION	BY DATE
DESIGNED	AB 02/22
FIELD SURVEY	
PROJECT MGR.	UAG 5/22
LEAD ENGR.	BOB 5/22
FIELD MGR.	BOB 5/22
RECOMMENDED	HAS 5/22
FILE: DRAWING:	DATE 7/18/22
ATLAS PAGE NO. 442	SHEET 5 OF 10 SHEETS

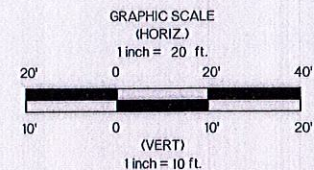
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Tuesday, April 19, 2022 11:51:21 AM  
V:\16-1003E City of Tulsa, Stormwater Design\T05 Bird Ck Erosion\CV3D\Plans\1003 T05 PLAN & PROFILE.dwg



CP - #7400 Sta. 10+28.40, 6573' Rt. CP - 3/8" IP w/ Orange Cap ELEV=572.28 N=452584.267 E=2621262.359	CP - #7402 Sta. 10+28.03, 5200' Rt. CP - 3/8" IP w/ Orange Cap ELEV=567.45 N=452584.267 E=2621262.359
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#### NOTES:

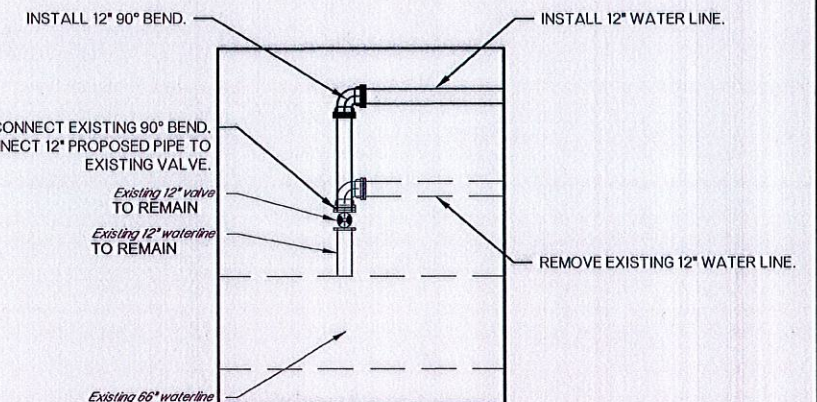
ANY STREAM DIVERSION MEASURES NECESSARY FOR THE CONSTRUCTION OF THIS PROJECT, SHALL BE PERFORMED BETWEEN STA. 10+72.50 AND STA. 12+22.50.

THE TOP OF THE EXISTING SHEET PILE SHALL BE TRIMMED WHERE NEEDED.

#### Utilities On Project

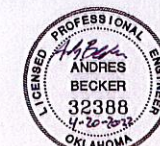
Rogers County RWD #5 - Steve Dunovant 918-596-9649

PSO - Lonnie Hicks 918-250-6211



### BLOW-OFF VALVE DETAIL

Not To Scale



BIRD CREEK			
153120-C2			
PLAN AND PROFILE			
CITY OF TULSA, OKLAHOMA ENGINEERING SERVICES DEPARTMENT			
GUYENGINEERING 6910 E. 14th ST. TULSA, OK 74112 (918) 437-0282 GUYengr.com			
REVISION	BY	DATE	APPROVED:
PLAN SCALE	DRAWN	BLP	04/22
1" = 20'	DESIGNED	AB	04/22
PROFILE SCALE	PROJECT MGR.	LAG	5/22
1" = 20'	LEAD ENGR.	BOC	5/22
1" = 10'	FIELD MGR.	BOC	5/22
	RECOMMENDED	HAS	5.22
FILE:	DRAWING:		DATE 7/8/22
ATLAS PAGE NO: 442			SHEET 6 OF 10 SHEETS



STORM WATER MANAGEMENT PLAN

SITE DESCRIPTION

PROJECT LIMITS: A PIPE CROSSING ON BIRD CREEK LOCATED APPROXIMATELY 2.5 MILES WEST FROM THE PORT OF CATOOSA AND 0.3 MILES SOUTH OF SH-266.

PROJECT DESCRIPTION: EMBANKMENT PROTECTION FOR AN EXISTING 66 INCH RAW WATER LINE.

SUGGESTED SEQUENCE OF EROSION CONTROL ACTIVITIES: CLEAR AND GRUB ONLY IN NECESSARY AREAS, PRESERVING AS MUCH NATIVE VEGETATION AS POSSIBLE. INSTALL, MAINTAIN AND/OR MOVE TEMPORARY SEDIMENT ITEMS WITH CONSTRUCTION OPERATIONS AS PRACTICAL. IF DIRECTED BY THE ENGINEER, PLANT TEMPORARY SEEDING. REPLACE SALVAGED TOPSOIL AND DEVICES WHEN AN ACCEPTABLE VEGETATIVE COVER (AT LEAST 70%) HAS BEEN ATTAINED. AS SITE CONDITIONS WARRANT, THE CONTRACTOR MAY CHOOSE TO MODIFY THE TYPE OR ARRANGEMENT OF SPECIFIED PRACTICES TO IMPROVE THEIR EFFECTIVENESS AS APPROVED BY THE ENGINEER. THE CONTRACTOR WILL MAINTAIN A LOG OF MAJOR SOIL DISTURBANCE ACTIVITIES, AND ALSO THE DATES OF INSTALLATION OF EROSION CONTROL MEASURES.

SOIL TYPE: VERDIGRIS SILTY CLAY LOAM

TOTAL AREA OF THE CONSTRUCTION SITE: 58,127 SQFT (1.33 ACRES)

ESTIMATED AREA TO BE DISTURBED: 33,706 SQFT (0.77 ACRES)

OFFSITE AREA TO BE DISTURBED: (FOR CONTRACTOR USE)

TOTAL IMPERVIOUS AREA PRE-CONSTRUCTION: 0 SQFT (0.00 ACRES)

TOTAL IMPERVIOUS AREA POST-CONSTRUCTION: 4,166 SQFT (0.10 ACRES)

POST-CONSTRUCTION RUNOFF COEFFICIENT OF THE SITE: 0.12

LATITUDE & LONGITUDE OF CENTER OF PROJECT: 36.223190° N, -95.786859° E

PROJECT WILL DISCHARGE TO:

NAME OF RECEIVING WATERS: BIRD CREEK

SENSITIVE WATERS OR WATERSHEDS: YES NO X

303(D) IMPAIRED WATERS: YES X NO

IF YES, LIST IMPAIRMENT: E. COLI, ENTEROCOCCUS

LOCATED IN A TMDL: YES X NO

LAKE THUNDERBIRD TMDL: YES NO X

MS4 ENTITY YES X NO

IF YES, LOCATION: TULSA COUNTY

NOTE: THIS SHEET SHOULD BE USED IN CONJUNCTION WITH A DRAINAGE MAP THAT ILLUSTRATES THE DRAINAGE PATTERNS/PATHWAYS AND RECEIVING WATERS FOR THIS PROJECT. THIS SHEET SHOULD ALSO BE USED WITH THE EROSION CONTROL SUMMARIES, PAY ITEMS, & NOTES.

EROSION AND SEDIMENT CONTROLS

SOIL STABILIZATION PRACTICES:

- X TEMPORARY SEEDING
- PERMANENT SODDING, SPRIGGING OR SEEDING
- VEGETATIVE MULCHING
- SOIL RETENTION BLANKET
- X PRESERVATION OF EXISTING VEGETATION

NOTE: TEMPORARY EROSION CONTROL METHODS MUST BE USED ON ALL DISTURBED AREAS WHERE CONSTRUCTION ACTIVITIES HAVE CEASED FOR OVER 14 DAYS. METHODS USED WILL BE AS SHOWN ON PLANS, OR AS DIRECTED BY THE ENGINEER.

STRUCTURAL PRACTICES:

- STABILIZED CONSTRUCTION EXIT
- X TEMPORARY SILT FENCE
- X TEMPORARY SILT DIKES
- TEMPORARY FIBER LOG
- X DIVERSION, INTERCEPTOR OR PERIMETER DIKES
- DIVERSION, INTERCEPTOR OR PERIMETER SWALES
- ROCK FILTER DAMS
- TEMPORARY SLOPE DRAIN
- PAVED DITCH W/ DITCH LINER PROTECTION
- TEMPORARY DIVERSION CHANNELS
- TEMPORARY SEDIMENT BASINS
- TEMPORARY SEDIMENT TRAPS
- TEMPORARY SEDIMENT FILTERS
- X TEMPORARY SEDIMENT REMOVAL
- X RIP RAP
- INLET SEDIMENT FILTER
- TEMPORARY BRUSH SEDIMENT BARRIERS
- SANDBAG BERMS
- TEMPORARY STREAM CROSSINGS

OFFSITE VEHICLE TRACKING:

- X HAUL ROADS DAMPENED FOR DUST CONTROL
- X LOADED HAUL TRUCKS TO BE COVERED WITH TARPAULIN
- EXCESS DIRT ON ROAD REMOVED DAILY

NOTES:

THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR THE FOLLOWING:

MAINTENANCE AND INSPECTION:

ALL EROSION AND SEDIMENT CONTROLS WILL BE MAINTAINED IN GOOD WORKING ORDER FROM THE BEGINNING OF CONSTRUCTION UNTIL AN ACCEPTABLE VEGETATIVE COVER IS ESTABLISHED. INSPECTION BY THE CONTRACTOR AND ANY NECESSARY REPAIRS SHALL BE PERFORMED ONCE EVERY 7 CALENDAR DAYS AND WITHIN 24 HOURS AFTER ANY STORM EVENT GREATER THAN 0.5 INCH AS RECORDED BY A NON-FREEZING RAIN GAUGE TO BE LOCATED ON SITE. POTENTIALLY ERODIBLE AREAS, DRAINAGEWAYS, MATERIAL STORAGE, STRUCTURAL DEVICES, CONSTRUCTION ENTRANCES AND EXITS ALONG WITH EROSION AND SEDIMENT CONTROL LOCATIONS ARE EXAMPLES OF SITES THAT NEED TO BE INSPECTED.

WASTE MATERIALS:

PROPER MANAGEMENT AND DISPOSAL OF CONSTRUCTION WASTE MATERIAL IS REQUIRED BY THE CONTRACTOR. MATERIALS INCLUDE STOCKPILES, SURPLUS, DEBRIS AND ALL OTHER BY-PRODUCTS FROM THE CONSTRUCTION PROCESS. PRACTICES INCLUDE DISPOSAL, PROPER MATERIALS HANDLING, SPILL PREVENTION AND CLEANUP MEASURES. CONTROLS AND PRACTICES SHALL MEET THE REQUIREMENTS OF ALL FEDERAL, STATE AND LOCAL AGENCIES.

HAZARDOUS MATERIALS:

PROPER MANAGEMENT AND DISPOSAL OF HAZARDOUS WASTE MATERIALS IS REQUIRED. THE CONTRACTOR IS RESPONSIBLE FOR FOLLOWING MANUFACTURER'S RECOMMENDATIONS, STATE AND FEDERAL REGULATIONS TO ENSURE CORRECT HANDLING, DISPOSAL, SPILL PREVENTION AND CLEANUP MEASURES. EXAMPLES INCLUDE BUT ARE NOT LIMITED TO: PAINTS, ACIDS, CLEANING SOLVENTS, CHEMICAL ADDITIVES, CONCRETE CURING COMPOUNDS AND CONTAMINATED SOILS.

GENERAL NOTES:

A STORM WATER POLLUTION PREVENTION PLAN (SWPPP) IS REQUIRED TO COMPLY WITH THE OKLAHOMA POLLUTION DISCHARGE ELIMINATION SYSTEM (OPDES) REGULATIONS. THIS PLAN IS INITIATED DURING THE DESIGN PHASE, CONFIRMED IN THE PRE-WORK MEETINGS AND AVAILABLE ON THE JOB SITE ALONG WITH COPIES OF THE NOTICE OF INTENT (NOI) FORM AND PERMIT CERTIFICATE THAT HAVE BEEN FILED WITH THE OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY (ODEQ). THE PLAN MUST BE KEPT CURRENT WITH UP-TO-DATE AMENDMENTS DURING THE PROGRESSION OF THE PROJECT. ALL CONTRACTOR OFF-SITE OPERATIONS ASSOCIATED WITH THE PROJECT MUST BE DOCUMENTED IN THE SWPPP, I.E., BORROW PITS, WORK ROADS, DISPOSAL SITES, ASPHALT/CONCRETE PLANTS, ETC. THE BASIC GOAL OF STORM WATER MANAGEMENT IS TO IMPROVE WATER QUALITY BY REDUCING POLLUTANTS IN STORM WATER DISCHARGES. RUNOFF FROM CONSTRUCTION SITES HAS A POTENTIAL FOR POLLUTION DUE TO EXPOSED SOILS AND THE PRESENCE OF HAZARDOUS MATERIALS USED IN THE CONSTRUCTION PROCESS. THE PREVENTION OF SOIL EROSION, CONTAINMENT OF HAZARDOUS MATERIALS AND/OR THE INTERCEPTION OF THESE POLLUTANTS BEFORE LEAVING THE CONSTRUCTION SITE ARE THE BEST PRACTICES FOR CONTROLLING STORM WATER POLLUTION.

THE FOLLOWING SECTIONS OF THE 2019 ODOT STANDARD SPECIFICATIONS SHOULD BE NOTED:

- 103.05 BONDING REQUIREMENTS
- 104.10 FINAL CLEANING UP
- 104.12 CONTRACTOR'S RESPONSIBILITY FOR WORK
- 104.13 ENVIRONMENTAL PROTECTION
- 106.08 STORAGE AND HANDLING OF MATERIAL
- 107.01 LAWS, RULES AND REGULATIONS TO BE OBSERVED
- 107.20 STORM WATER MANAGEMENT
- 220 MANAGEMENT OF EROSION, SEDIMENTATION AND STORM WATER
- 221 POLLUTION PREVENTION AND CONTROL TEMPORARY SEDIMENT CONTROL

IN ADDITION:

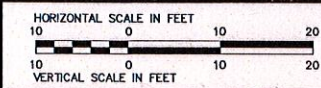
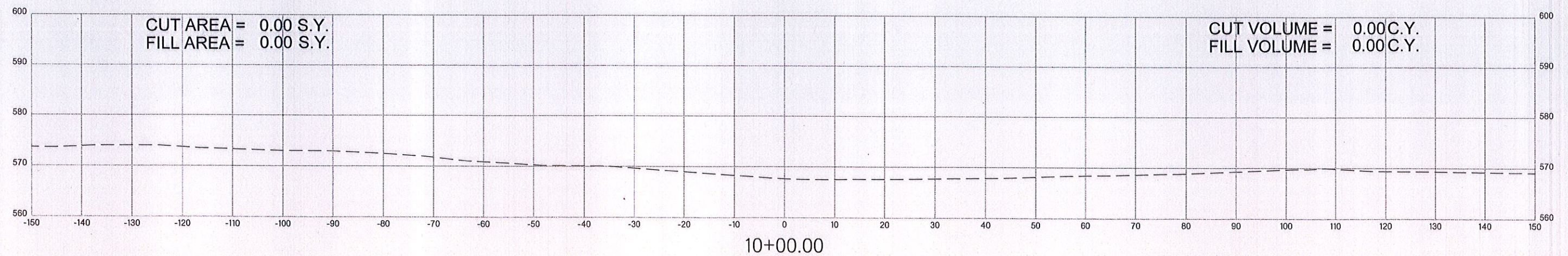
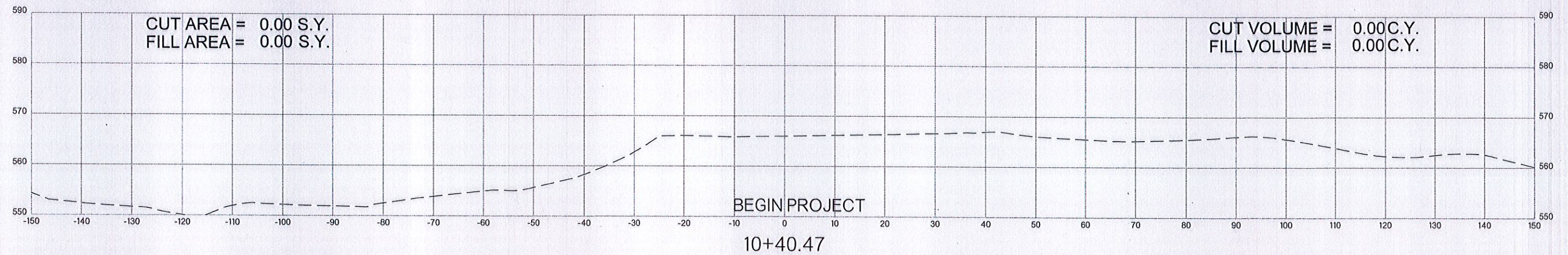
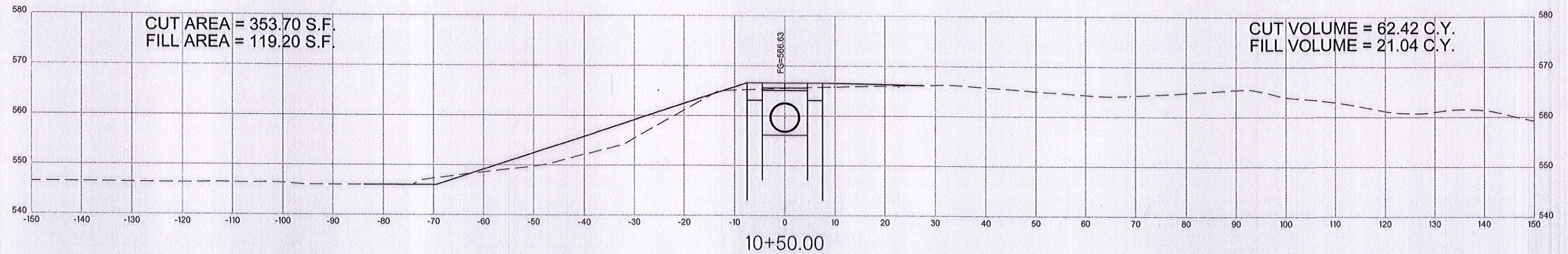
"ODEQ GENERAL PERMIT (OKR10) FOR STORM WATER DISCHARGES FROM CONSTRUCTION ACTIVITIES WITHIN THE STATE OF OKLAHOMA." ODEQ, WATER QUALITY DIVISION, SEPTEMBER 13, 2017.

BIRD CREEK			
153120-C2			
STORM WATER MANAGEMENT PLAN			
CITY OF TULSA, OKLAHOMA ENGINEERING SERVICES DEPARTMENT			
GUYENGINEERING 6910 E. 14th St. TULSA, OK 74112 (918) 437-0282 GUYengr.com			
REVISION	BY	DATE	APPROVED:
PLAN SCALE	DRAWN	BLP	04/22
N/A	DESIGNED	AB	04/22
PROFILE SCALE	FIELD SURVEY		
HORIZONTAL	PROJECT MGR.	CHG	5/22
N/A	LEAD ENGR.	BOC	5/22
VERTICAL	FIELD MGR.	BOC	5/22
N/A	RECOMMENDED:	HAS	5-22
FILE:	DRAWING:	DATE	7/8/22
ATLAS PAGE NO:	442	SHEET 7 OF 10 SHEETS	





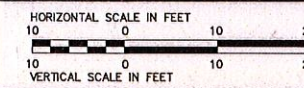
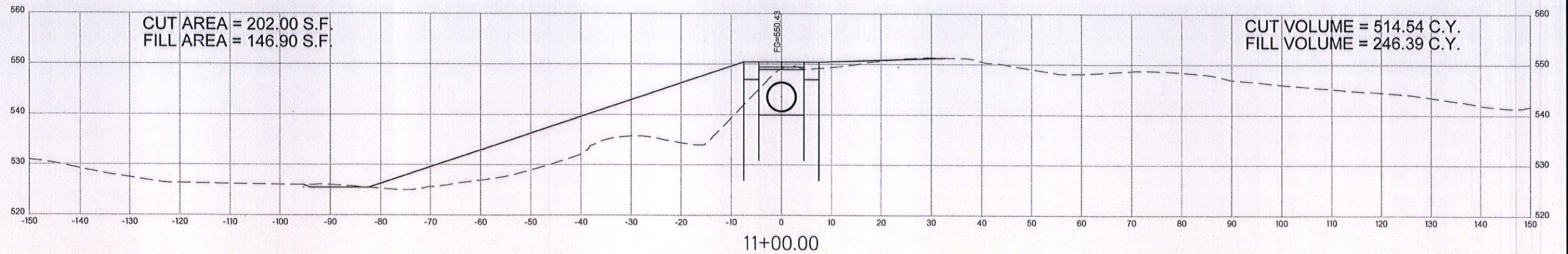
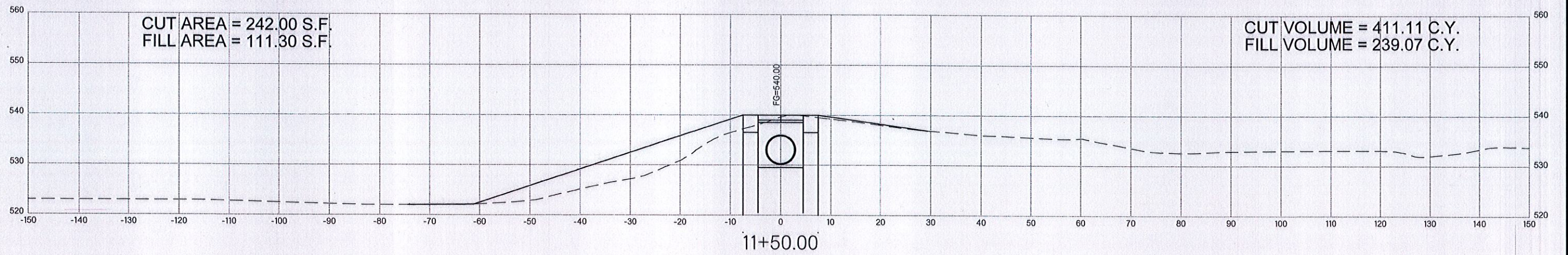
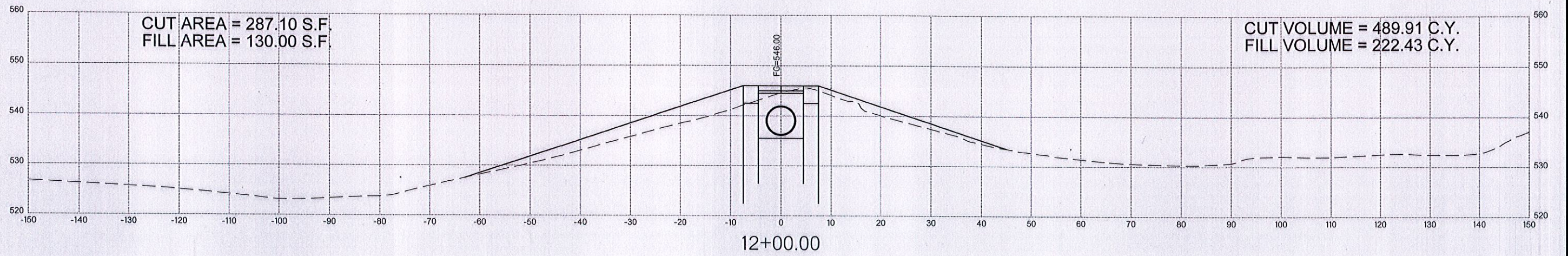
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CROSS SECTIONS - BIRD CREEK  
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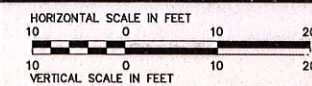
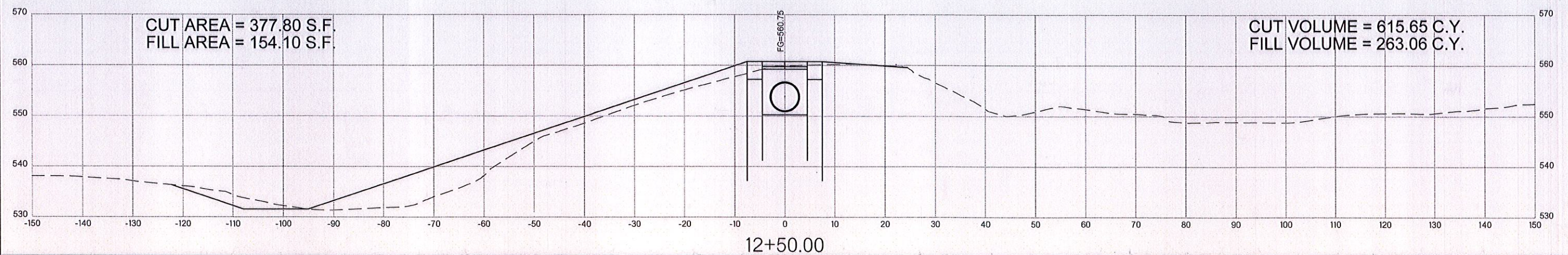
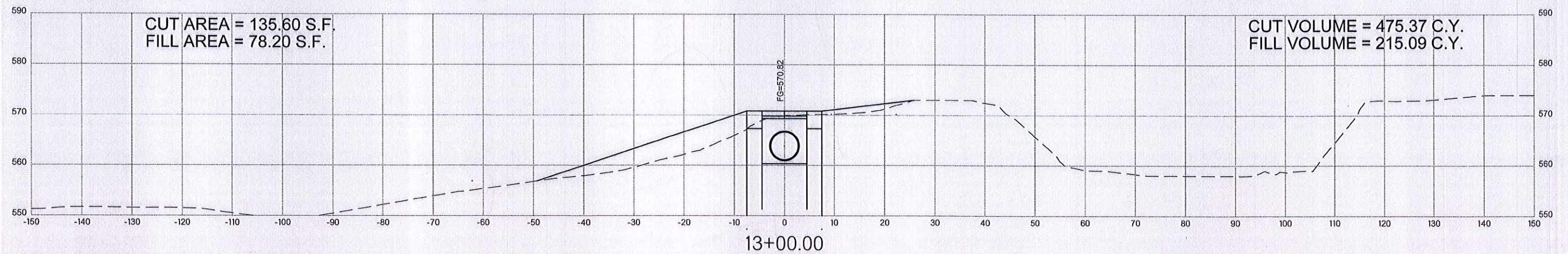
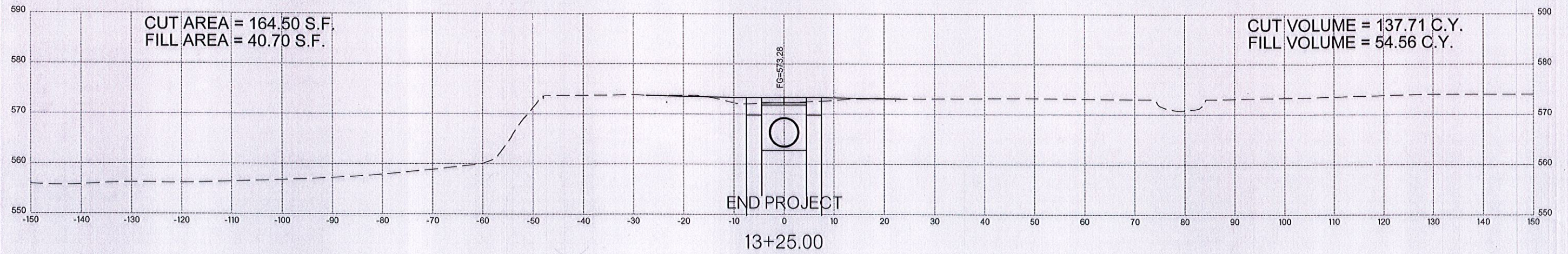
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CROSS SECTIONS - BIRD CREEK  
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CROSS SECTIONS - BIRD CREEK

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SHEET 10 OF 10



