

### CIVIL SYMBOLS

	CLEANOUT		EXISTING TO BE DEMOLISHED
	FLOW ARROW		EXISTING TO BE ABANDONED IN PLACE
	STORM DRAINAGE MANHOLE		EXISTING
	SANITARY MANHOLE		NEW
	GAS METER		FUTURE
	LIGHT POLE		EXISTING CONCRETE
	OVERHEAD ELECTRIC POWER		NEW CONCRETE
	ELECTRIC TRANSMISSION TOWER		ASPHALT
	PROPERTY LINE		ROCK OR ROCK RIPRAP
	YARD VALVE WITH VALVE STACK		TREES/BRUSH
	YARD VALVE WITH MANHOLE		THRUST BLOCK PER DWU STD
	AIR VALVE		
	SECURITY FENCE		
	FIRE HYDRANT OR YARD HYDRANT		
	SOIL BORING LOCATION		
	BENCH MARK, CONTROL POINT		
	EMBANKMENT SLOPE		

### CIVIL NOTES

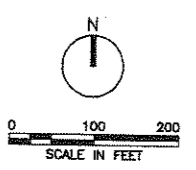
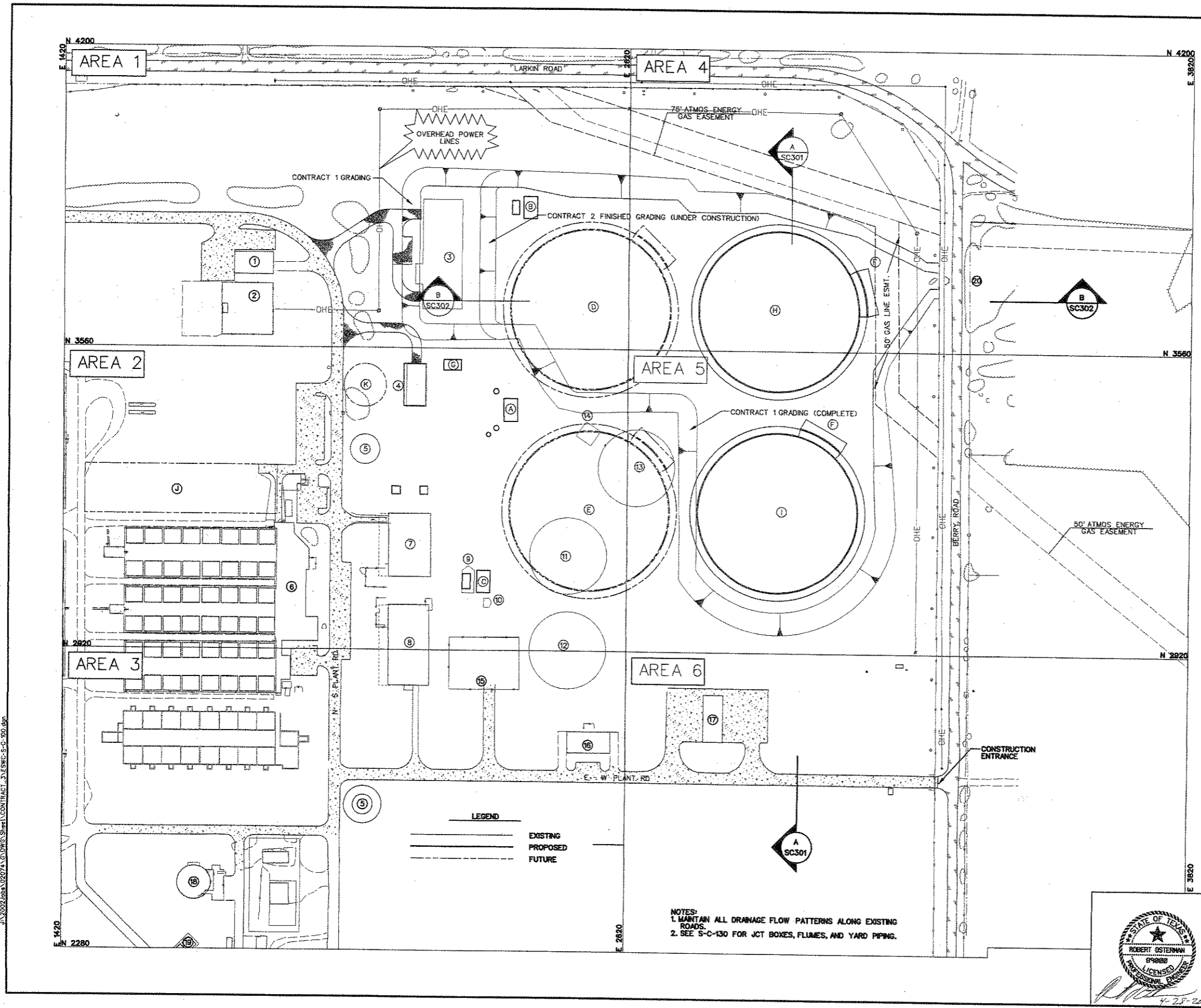
001. ALL DIMENSIONS AND STATION LOCATIONS SHOWN ON THE CIVIL SHEETS ARE TO CENTER LINE OF PIPE UNLESS OTHERWISE NOTED.
002. REPLACE EXISTING ROADWAY THAT IS CUT BY PIPE TRENCHES WITH SIMILAR ROADWAY GEOMETRICS AND MATERIAL. MAINTAIN AT LEAST HALF WIDTH OF SAID ROADWAY OPEN TO TRAFFIC AT ALL TIMES. ALL CUTS THROUGH EXISTING PAVEMENT TO BE SAW CUTS.
003. UNLESS OTHERWISE NOTED, RESTORE ANY EXISTING FENCING WHICH IS DISTURBED BY CONSTRUCTION TO ITS ORIGINAL CONDITION. NO SEPARATE PAY ITEM.
004. PROVIDE JOINT RESTRAINT IN LIEU OF THRUST BLOCKING AT LOCATIONS SHOWN ON THE PLANS. PROVIDE THRUST BLOCKING AT ALL OTHER LOCATIONS IN ACCORDANCE WITH DALLAS WATER UTILITIES STANDARD THRUST BLOCK DETAILS PAGES 229-234 WHERE INDICATED ON THE PLANS OR FOR PRESSURE LINES WHERE RESTRAINT LENGTHS HAVE NOT BEEN SPECIFIED.
005. PROVIDE TAPE, FITTINGS, PLUGS, AND OTHER DEVICES FOR USE IN FILLING, FLUSHING, TESTING, ETC. (NO SEPARATE PAY ITEM.)
006. UNLESS OTHERWISE NOTED, ABOVE GROUND FITTINGS AND FIRST UNDERGROUND CONNECTION TO BE FLANGED.
007. A PORTION OF THE YARD PIPING IN THIS CONTRACT WILL BE PLUGGED AND TESTED. THE REMAINING YARD PIPING WILL BE COMPLETED IN CONTRACT 3. EXISTING GRADES INDICATED IN THESE PLANS REFLECT GRADING AT THE COMPLETION OF CONTRACT 1.
008. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND PROTECTING ALL EXISTING UTILITIES. THE CONTRACTOR SHALL NOT WORK, OPERATE OR PARK EQUIPMENT, STOCKPILE CUT OR FILL, OR STORE MATERIALS ABOVE OR DIRECTLY ADJACENT TO THE EXISTING 72-INCH AND 84-INCH RAW WATER PIPELINES, 96-INCH JIM MILLER PIPELINE, 24-INCH PLANT WATER LINE, 36-INCH STORM SEWER, 16-INCH AND 20-INCH ATMOS NATURAL GAS TRANSMISSION LINES, STAGE II PIPING/FLUMES, OR OTHER YARD PIPING ON THE PLANT SITE. PERMISSABLE EQUIPMENT WHEEL LOADS OVER THESE LINES IS 4,000 LBS WITHOUT PRESSURE DISTRIBUTION MATS, CAUTION: EXISTING STORM SEWER AND DRAIN PIPING MIGHT HAVE LESS THAN 2 FT OF COVER IN AREAS.
009. LIMIT EQUIPMENT LOADS ON OR ACROSS EXISTING LINES AS FOLLOWS:  
24-PW LINE (AN H2O LOAD)  
72-BYPASS, 72-RW, 84-RW, OR 96-TW (AN HS2O LOAD)
010. IF THE CONTRACTOR MUST CROSS OR WORK IN THE GAS EASEMENT, CROSSINGS SHALL BE LIMITED TO AN H2O LOAD AFTER ONE OF THE FOLLOWING "BRIDGE" PROTECTION REQUIREMENT HAVE BEEN MET:  
-PLACE ADDITIONAL TEMPORARY FILL TO ENSURE 6 FEET OF MINIMUM COVER OVER THE GAS LINE, OR,  
-PLACE STEEL PLATE (1" THICK x 12' LONG x EQUIPMENT WIDTH) WITH THE 12 FT DIMENSIONS PERPENDICULAR TO AND CENTERED ON THE GAS LINE. MAXIMUM PERMISSABLE WHEEL LOAD OVER GAS PIPELINE IS 4,000 LBS WITHOUT BRIDGE PROTECTION.
011. INSTALLATION OF PILING OR SHEETING ADJACENT TO THE EXISTING PIPELINES WILL NOT BE ALLOWED BY VIBRATORY OR DRIVEN METHODS OR ANY OTHER METHOD THAT MAY HARM THE INTEGRITY OF THE EXISTING PIPELINES. CONTRACTOR SHALL TAKE SPECIAL CARE WHEN INSTALLING TIE-BACKS NEAR EXISTING PIPELINES.
012. PIPE EMBEDMENT CLASSES SHOWN ARE PER DWU STANDARD DRAWING AND DETAILS.
013. ALL BUTTERFLY YARD VALVES SHALL BE INSTALLED IN ACCORDANCE WITH DWU STANDARD DETAIL 214, 215 AND 216. MANHOLES AND BYPASS PIPING ARE REQUIRED.
014. ALL AIR RELEASE VALVES IN YARD (BURIED) SHALL BE INSTALL IN ACCORDANCE WITH DWU STANDARD DETAILS 209 AND 210. MANHOLES ARE REQUIRED.
015. BYPASS PIPING ON DWU STANDARD DRAWING 214 SHALL BE SIZED TO 10% OF THE BUTTERFLY VALVE NOMINAL DIAMETER OR THE NEXT AVAILABLE GATE VALVE SIZE. (LARGER).
016. SEE CATHODIC PROTECTION SHEETS FOR PIPELINE INSTALLATION REQUIREMENTS.

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BAR IS ONE INCH IN LENGTH ON ORIGINAL DRAWING. CHECK LENGTH AND ADJUST SCALES ACCORDINGLY



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NO.	DATE	REVISION	APPROV.
EAST SIDE WTP 540 MGD EXPANSION - PART B BASE - NE & SE CLEARWELLS & FLUMES ALTERNATE - NW & SW CLEARWELLS CIVIL SYMBOLS & NOTES DALLAS WATER UTILITIES CITY OF DALLAS, TEXAS			
TCB   AECOM		TCB INC. 17560 DALLAS PARKWAY, SUITE 1010 DALLAS, TEXAS 75248-1167 WWW.TCB.AECOM.COM	CONTRACT NO. <b>08-155</b> FILE NO. <b>620Q-400R.3</b>
DESIGN	RO	CONTRACT NO.	DWG. NO.
DRAWN	RE/TAS	<b>08-155</b>	<b>S-C-001</b>
CHECKED	US	FILE NO.	18 of 210
APPROVED	RO	<b>620Q-400R.3</b>	
DATE			



KEY

AREA 1 S-C-101	AREA 4 S-C-104
AREA 2 S-C-102	AREA 5 S-C-105
X	X

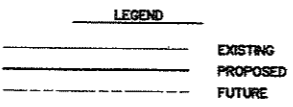
\* NOT USED FOR THIS CONTRACT

**EXISTING STRUCTURES**

- ① MAIN ELECTRICAL BUILDING NO 2
- ② ELECTRICAL SUBSTATION (DWU OWNED)
- ③ TRANSFER PUMP STATION NO 3
- ④ ELECTRICAL TRANSFORMER YARD
- ⑤ WASHWATER TANK (ELEVATED)
- ⑥ ADMINISTRATION/CONTROL BUILDING
- ⑦ TRANSFER PUMP STATION NO 2
- ⑧ TRANSFER PUMP STATION NO 1
- ⑨ JUNCTION BOX 1
- ⑩ GATE CONTROL STRUCTURE
- ⑪ STAGE I CLEARWELL
- ⑫ STAGE II CLEARWELL
- ⑬ STAGE III CLEARWELL
- ⑭ JUNCTION BOX 2
- ⑮ ELECTRICAL SUBSTATION
- ⑯ MAIN ELECTRICAL BUILDING NO 1
- ⑰ FACILITIES MAINTENANCE BUILDING
- ⑱ WASHWATER RECIRCULATION PUMP STATION
- ⑲ SLUDGE PUMP STATION
- ⑳ CULVERT STRUCTURE

**NEW STRUCTURES**

- (A) SUPPLY JUNCTION BOX
- (B) NORTH RETURN JUNCTION BOX
- (C) SOUTH RETURN JUNCTION BOX
- (D) FUTURE NW CLEARWELL
- (E) FUTURE SW CLEARWELL
- (F) OVERFLOW STRUCTURE
- (G) METER VAULT
- (H) NE CLEARWELL
- (I) SE CLEARWELL
- (J) FUTURE FILTER
- (K) FUTURE WASHWATER TANK (ELEVATED)

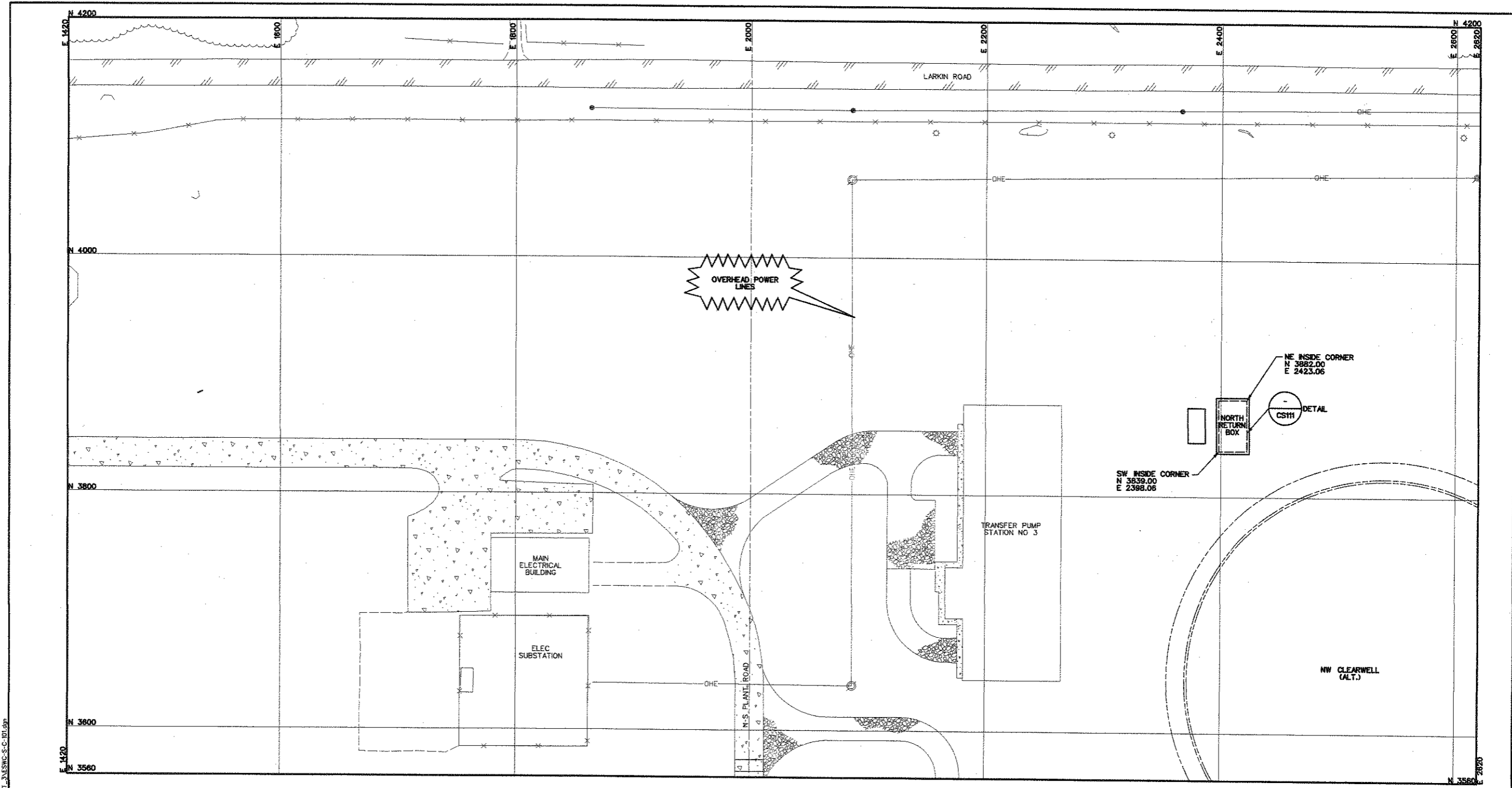


NOTES:  
 1. MAINTAIN ALL DRAINAGE FLOW PATTERNS ALONG EXISTING ROADS.  
 2. SEE S-C-130 FOR JCT BOXES, FLUMES, AND YARD PIPING.



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NO.	DATE	REVISION	APPROV.
EAST SIDE WTP 540 MGD EXPANSION - PART B BASE - NE & SE CLEARWELLS & FLUMES ALTERNATE - NW & SW CLEARWELLS SITE PLAN GENERAL LAYOUT DALLAS WATER UTILITIES CITY OF DALLAS, TEXAS			
TCB   AECOM		TCB INC. 17800 DALLAS PARKWAY, SUITE 1010 DALLAS, TEXAS 75248-1157 WWW.TCB.AECOM.COM	
DESIGN	CONTRACT NO.	DWG. NO.	
DRAWN	08-155	S-C-100	
CHECKED	FILE NO.	19 of 210	
APPROVED	620Q-400R.3		
DATE	APR 2008		

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OVERHEAD POWER LINES

NE INSIDE CORNER  
N 3882.06  
E 2423.06

CS111 DETAIL

NORTH RETURN BOX

SW INSIDE CORNER  
N 3839.00  
E 2398.06

TRANSFER PUMP STATION NO 3

MAIN ELECTRICAL BUILDING

ELEC SUBSTATION

NW CLEARWELL (ALT.)

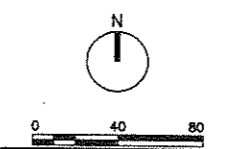
KEY

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AREA 2 S-C-102	AREA 3 S-C-103
X	X

\* NOT USED FOR THIS CONTRACT

LEGEND

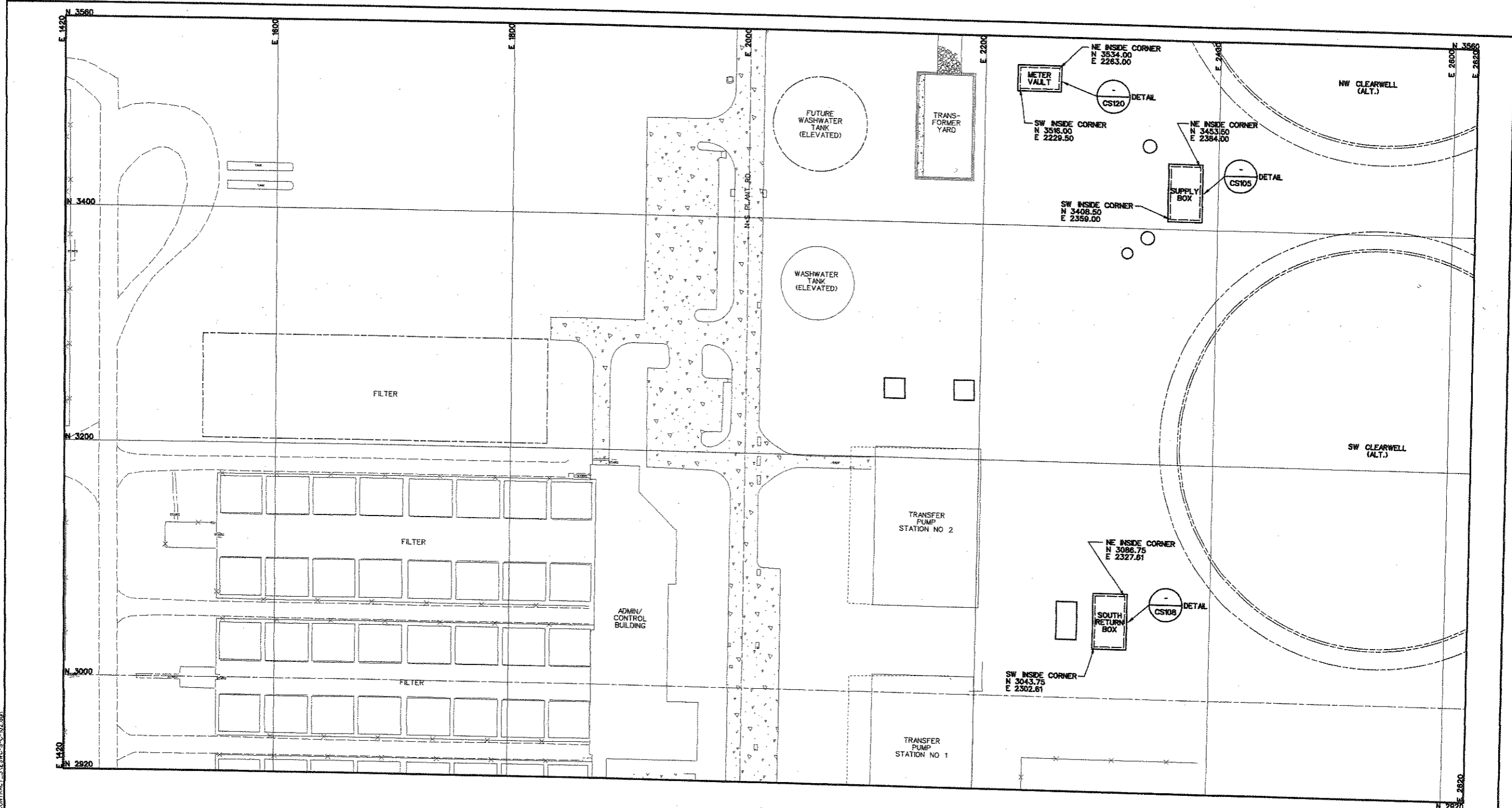
	EXISTING
	PROPOSED
	FUTURE



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NO.	DATE	REVISION	APPROV.
EAST SIDE WTP 540 MGD EXPANSION - PART B BASE - NE & SE CLEARWELLS & FLUMES ALTERNATE - NW & SW CLEARWELLS			
SITE PLAN - AREA 1			
DALLAS WATER UTILITIES CITY OF DALLAS, TEXAS			
TCB   AECOM		TCB INC. 17850 DALLAS PARKWAY, SUITE 1010 DALLAS, TEXAS 75248-1157 WWW.TCB.AECOM.COM	
DESIGN	RO	CONTRACT NO.	DWG. NO.
DRAWN	RE/TAS	08-155	S-C-101
CHECKED	US	FILE NO.	
APPROVED	RO	620Q-400R.3	2.0 of 2.10
DATE	APR. 2008		

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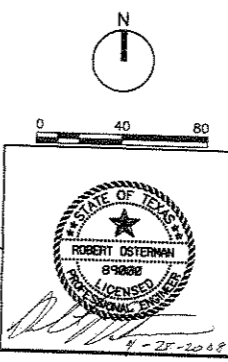
**KEY**

AREA 1 S-C-101	AREA 4 S-C-104
AREA 5 S-C-105	

\* NOT USED FOR THIS CONTRACT

**LEGEND**

	EXISTING
	PROPOSED
	FUTURE



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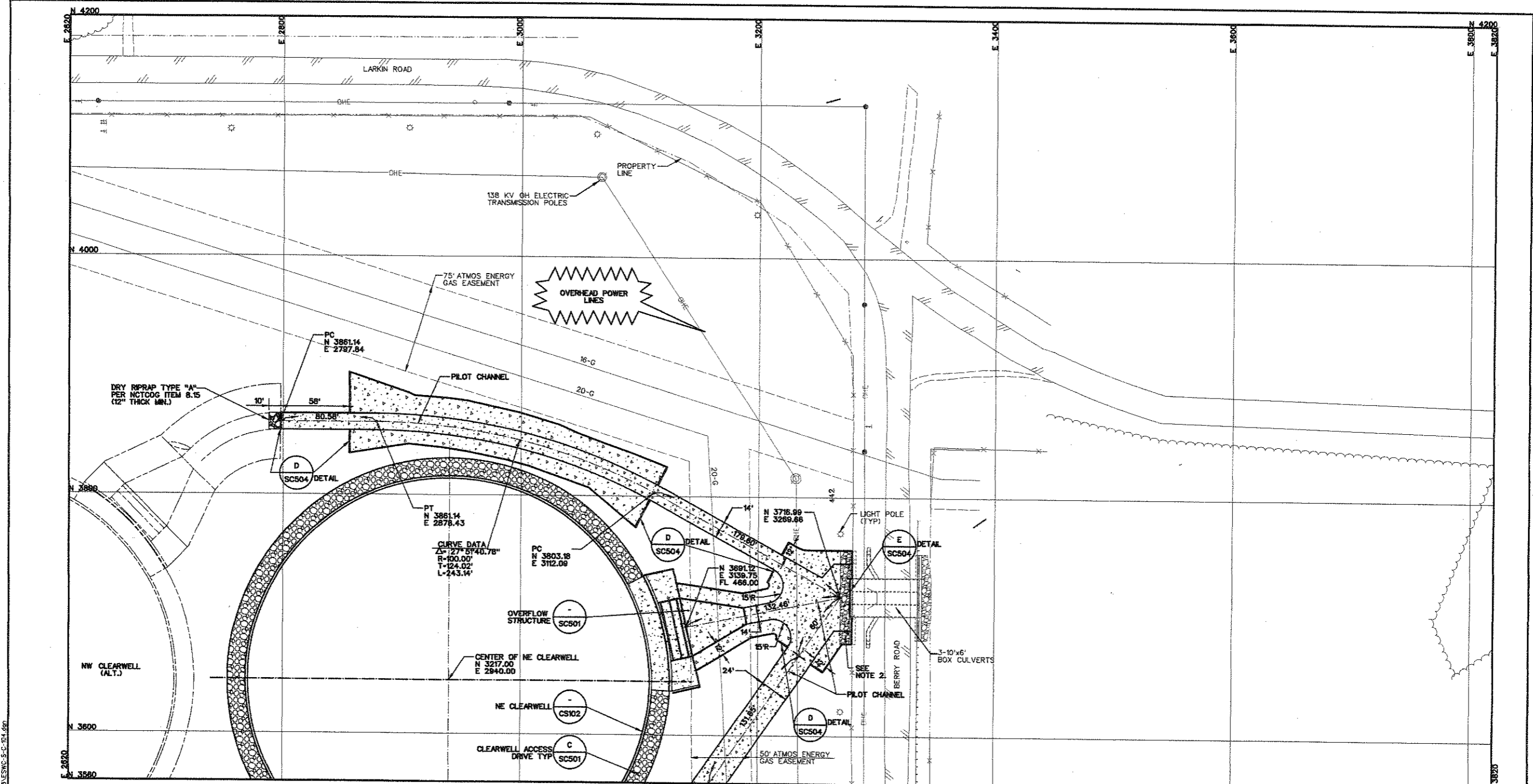
EAST SIDE WTP 540 MGD EXPANSION - PART B  
 BASE - NE & SE CLEARWELLS & FLUMES  
 ALTERNATE - NW & SW CLEARWELLS  
**SITE PLAN - AREA 2**

**DALLAS WATER UTILITIES**  
 CITY OF DALLAS, TEXAS

**TCB AECOM**

TCB INC.  
 17800 DALLAS PARKWAY, SUITE 1010  
 DALLAS, TEXAS 75248-1167  
 WWW.TCB.AECOM.COM

DESIGN	RO	CONTRACT NO.	08-155	DWG. NO.	S-C-102
DRAWN	RE/TAS	FILE NO.	620Q-400R.3	21	of 210
CHECKED	US	DATE	APR. 2008		
APPROVED	RO				



KEY

AREA 1 S-C-101	AREA 2 S-C-102	AREA 3 S-C-103	AREA 4 S-C-104	AREA 5 S-C-105
X	X	X	X	X

\* NOT USED FOR THIS CONTRACT

LEGEND

	EXISTING
	PROPOSED
	FUTURE

NOTE:  
 1. SEE SHEET S-C-134 FOR STORM DRAIN LAYOUT.  
 2. REMOVE AND RECLAIM RIP-RAP. RIP-RAP MAY BE RE-USED AS ALLOWED BY THE ENGINEER IN THIS CONTRACT. IF RE-USED, RIP-RAP MUST BE WASHED AND SORTED. ANY UN-USED RIP-RAP TO BE DISPOSED OF BY THE CONTRACTOR.

North Arrow

Graphic Scale: 0 40 80

APR 23 2008

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EAST SIDE WTP 540 MGD EXPANSION - PART B  
 BASE - NE & SE CLEARWELLS & FLUMES  
 ALTERNATE - NW & SW CLEARWELLS

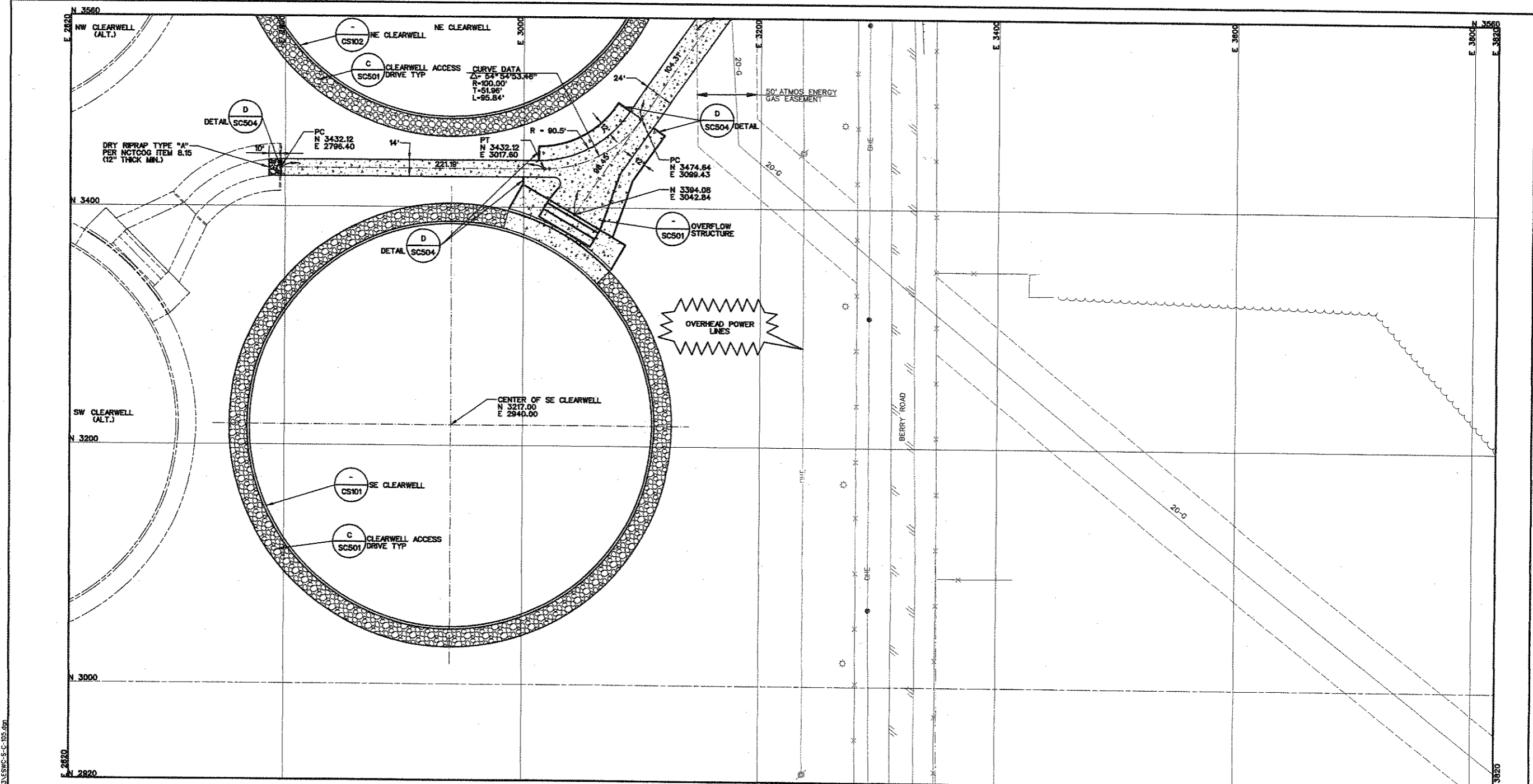
**SITE PLAN - AREA 4**

**DALLAS WATER UTILITIES**  
 CITY OF DALLAS, TEXAS

**TCB AECOM**

TCB INC.  
 17900 DALLAS PARKWAY, SUITE 1010  
 DALLAS, TEXAS 75248-1167  
 WWW.TCB.AECOM.COM

DESIGN	RO	CONTRACT NO.	DRG. NO.
DRAWN	RE/TAS	08-155	S-C-104
CHECKED	US	FILE NO.	
APPROVED	RO	620Q-400R.3	22 of 210
DATE	APR. 2008		



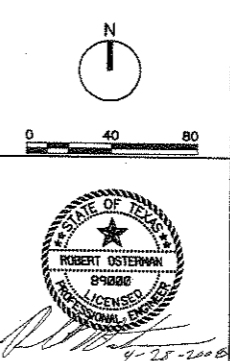
KEY

AREA 1 S-C-101	AREA 4 S-C-104
AREA 2 S-C-102	
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\* NOT USED FOR THIS CONTRACT

LEGEND

—————	EXISTING
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EAST SIDE WTP 540 MGD EXPANSION - PART B  
 BASE - NE & SE CLEARWELLS & FLUMES  
 ALTERNATE - NW & SW CLEARWELLS

**SITE PLAN - AREA 5**

**DALLAS WATER UTILITIES**  
 CITY OF DALLAS, TEXAS

**TCB AECOM**

TCB INC.  
 17300 DALLAS PARKWAY, SUITE 1010  
 DALLAS, TEXAS 75248-1157  
 WWW.TCB.AECOM.COM

DESIGN	RO	CONTRACT NO.	DWG. NO.
DRAWN	RE/TAS	08-155	S-C-105
CHECKED	US	FILE NO.	
APPROVED	RO	620Q-400R.3	23 OF 210
DATE	APR. 2008		

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