CITY OF WACO

Water Utility Services
Post Office Box 2570
Waco, Texas 76702-2570
254-750-8005
Fax: 254-750-8074
www.waco-texas.com

Date: **02/22/2023**
RFB No: **2023-007**
Commodity: **WMARSS Aire Line Replacement Project**
Purchasing Agent: **Daryle Bullard**

Closing Time:2:00 P.M. CST, Tuesday, March 7, 2023
Opening Time: 2:01 P.M. CST, Tuesday, March 7, 2023

RFB Opening Location: Operations Center, Purchasing Services Office, 1415 N. 4th St., Waco, TX 76707

Addendum No: 1

The above-mentioned RFB invitation has been changed in the following manner. **Sign and return addendum to the Purchasing Office by the closing time and date with your RFB response**. Returning this page signed by your authorized agent will serve to acknowledge this change. All other requirements of the invitation remain unchanged. If you have any questions, please call or stop by the Purchasing Office at the above address.

1. **Note the new closing date: 2 P.M. CST, Tuesday March 7, 2023**
2. **The following pages has answers to questions raised, and clarifications & amendments to the specifications. Please review and note the changes.**
3. **A revised bid pricing sheet is attached. USE THE ATTACHED BID SHEET. Using the earlier version will disqualify the contractor.**
4. **A different salary pay requirement is attached and must be adhered to.**
5. **Check valve detail and profile view of the pipe is attached.**

Firm:_____

Address:_____

Signature of Person
Authorized to Sign Bid:_____

Signor's Name and Title
(print or type):_____

E-mail Address:_____

Date:_____ Telephone:_____ Fax:_____

Questions and Answers from the pre-bid meeting and thereafter:

1. How will the winning bid be determined with the addition of an alternative bid whereby the contractor is to supply the ductile iron pipe?
   The City wishes to leave the option open as to it (the City) will be supplying the ductile iron pipe as originally stated. Once the bids are received and based on internal decisions, the winning bidder will be either the contractor with the lowest price whereby the City is supplying the pipe or the lowest bidder whereby the contractor is supplying the pipe. Whichever is in the best interest of the City.

2. I had asked a question on Public Purchase about better plan sheets with profiles for the 24" line.
   See attached.

3. I was wondering if you know the engineers estimate for WMARSS Airline Replacement Project for the City of Waco - RFB No. 2023-007
   We do not have an engineer's estimate for this project.

4. The 24-inch airline specified, in scope, ductile iron. Our recommendation and requests are to approve FRP as a safe and more cost-effective alternative to the material specified. Please advise.
   We ore only accepting ductile iron pipe for this project.

5. Does the thermo-weld have to be replaced?
   The thermo-weld is to be reused.

6. Does the contractor have to supply the check valves?
   No. The City will provide the check valves as a part of the overall pipe purchase.

7. Does the City want to keep the old ductile iron pipe?
   The contractor is to dispose of the old ductile iron pipe according to proper methods and means.

8. Will the paint thickness have to be checked?
   Yes. The mill thickness is required to be checked. This will be at the contractor's expense and should be included in the appropriate bit item.

9. Can the metal road plates be driven over?
   Yes. However, the contractor is to take care when driving heavy equipment over the plates and maintain their functionality.

9. Can we get a detail drawing of the pipe you are purchasing so we can a better understand of the below ground connections? We don't want to assume the connection type to be made and prepare for the wrong connections. As it is stated in the RFQ the testing is an important part of this bid and leak free is a must.
   We do not have detail drawings of the pipe we are purchasing. However, the attached profile sheet may have some information that maybe useful. We will be purchasing push on joint DIP for the buried sections and flanged pipe for the above ground

sections. The concrete encasement shown on the plans is to be replaced as a part of this project. Specific pipe details are as follows:
-All the DIP is to be unlined
-The buried section of pipe is to have zinc coating and be restrained
-V-Bio wrapping will be used for the buried section of the pipe
-FKM Gaskets will be used for the buried section of the pipe
-The fittings are to be 350 Class rated
-The pipe is to be 150 Class rated
-All of the 18-inch DIP and 50 feet of the 24-inch DIP will have flange fittings

10. When disconnecting the existing line to install the new line how will this affect the facility? It states in the RFQ to minimize the down time if disconnecting this line will put the facility out of service then is the better way to install this line to run the new line parallel with the old line and make the tie ends at one time over the weekend when the facility is slow? If the shutdown will not affect much then running as we demo will be best please advise on this?
    The airline will be shut down for the new line to be installed. Keeping the plant up and running refers to all the other aspects of the plant. Sewer lines, water lines, sludge lines and electrical lines. If there is a conflict with keeping the plant up and running and the installation of the air line, we will find a mutually agreeable solution.

11. Can we get the quality controls you wish to perform (pressure test type, hold times, jeep test, torque specs for bolting, etc..)
    We will require a pressure test on the air line, a soil compaction test for the backfill material, and any other test used to determine a proper installation of the air line, per the manufacturer's requirements and recommendations.

CITY OF WACO
OFFICIAL BID SHEET
BID INVITATION NO: RFB 2023-007
WMARSS Misc. Rehabilitation Repair Project

DATE: _____

BIDDER:_____

AUTHORIZED
SIGNATURE:_____

I. Refer to "Standard Instructions for all Bids" before completing Bid Sheet.
   a. Price: quote your best price, F.O.B. Destination, on each item.

II. In submitting this bid, I certify:
   a. Items bid are in exact accordance with specifications, unless noted in bid.
   b. That prices in this bid have been arrived at independently, without consultation or agreement with any competitor for the purpose of restricting competition.

PRICING INFORMATION				
Note: Depending on the unit prices, requirements and approved budgeted funds, quantities may be reduced or increased during the contract period				
Item No.	**Description**	**Unit Price (A)**	**No. of Units (B)**	**Total Price (A x B) = C**
1.0	Mobilization, per the Special Project Provisions, Complete and in place		Lump Sum	
2.0	Bonds, and Insurance, per the Special Project Provisions, Complete and in place		Lump Sum	
3.0	Trench Safety Plan		Lump Sum	
4.0	Trench Safety Implementation		Lump Sum	
5.0	Remove the existing Air Line (24-inch diameter Ductile Iron Pipe)		360 LF	
6.0	Install new 24-inch Air Line (24-inch diameter Ductile Iron Pipe without interior coating)		360 LF	

Item No.	Description	Unit Price (A)	No. of Units (B)	Total Price (A x B) = C
7.0	Remove the existing Air Line (18-inch diameter Ductile Iron Pipe		100 LF	
8.0	Install new 18-inch Air Line (18-inch Ductile Iron Pipe without interior coating)		100 LF	
9.0	Remove and Replace the Existing Wall Gasket/Sealant		2 EA	
10.0	Type 'A' Pavement Repair (8-inch concrete base with 1-1/2 inches of asphalt top course)		100 SYDS	
11.0	Re-Paint all exposed 18-inch and 24-inch Ductile Iron Pipe and Pipe Supports w/ Tnemec Paint		Lump Sum	
12.0	Remove and Replace Steel Pipe Supports for 24-inch pipe		1	
13.0	Remove and Replace Pipe Supports for 18-inch pipe		4	
14.0	Erosion Control Plan		Lump Sum	
15.0	Erosion Control Implementation		Lump Sum	
16.0	Remove and Replace the Concrete Headwall		Lump Sum	
17.0	Remove and Replace 18-inch Check valve		2 EA	
18.0	Remove and Replace (Re-use) Existing Pressure Probe		2 EA	
19.0	Remove and Reinstall Light Pole Including any Necessary Wiring to have a Fully Functional Light and Pole		Lump Sum	
20.0	**TOTAL PRICE**			

ALTERNATE BID:

THE FOLLWOINGS PRICES ARE TO INCLUDE THE CONTRACT SUPPLYING THE DUCTILE IRON PIPE

PRICING INFORMATION				
Note: Depending on the unit prices, requirements and approved budgeted funds, quantities may be reduced or increased during the contract period				
Item No.	**Description**	**Unit Price (A)**	**No. of Units (B)**	**Total Price (A x B) = C**
1.0A	Mobilization, per the Special Project Provisions, Complete and in place		Lump Sum	
2.0A	Bonds, and Insurance, per the Special Project Provisions, Complete and in place		Lump Sum	
3.0A	Trench Safety Plan		Lump Sum	
4.0A	Trench Safety Implementation		Lump Sum	
5.0A	Remove the existing Air Line (24-inch diameter Ductile Iron Pipe)		360 LF	
6.0A	Install new 24-inch Air Line (24-inch diameter Ductile Iron Pipe without interior coating)-Contractor to supply the Material.		360 LF	

Item No.	Description	Unit Price (A)	No. of Units (B)	Total Price (A x B) = C
7.0A	Remove the existing Air Line (18-inch diameter Ductile Iron Pipe		100 LF	
8.0A	Install new 18-inch Air Line (18-inch Ductile Iron Pipe without interior coating)-Contractor to supply the Material.		100 LF	
9.0A	Remove and Replace the Existing Wall Gasket/Sealant-Contractor to supply the Material.		2 EA	
10.0A	Type 'A' Pavement Repair (8-inch concrete base with 1-1/2 inches of asphalt top course)		20 SYDS	
11.0A	Re-Paint all exposed 18-inch and 24-inch Ductile Iron Pipe and Pipe Supports w/ Tnemec Paint		Lump Sum	
12.0A	Remove and Replace Steel Pipe Supports for 24-inch pipe -Contractor to supply the Material.		1	
13.0A	Remove and Replace Pipe Supports for 18-inch pipe-Contractor to supply the Material.		4	
14.0A	Erosion Control Plan		Lump Sum	
15.0A	Erosion Control Implementation		Lump Sum	
16.0A	Remove and Replace the Concrete Headwall		Lump Sum	
17.0A	Remove and Replace 18-inch Check valve -Contractor to supply the Material.		2 EA	
18.0A	Remove and Replace (Re-use) Existing Pressure Probe		2 EA	
19.0A	Remove and Reinstall Light Pole Including any Necessary Wiring to have a Fully Functional Light and Pole		Lump Sum	
20.0A	**TOTAL ALTERNATE BID PRICE:**			

Early Payment Terms:

II. Bidder may offer an early payment discount by filling in the blanks in section b below. City may accept an early payment discount, but in doing so, City does not waive any of its rights under Texas Government Code Section 2251 (Prompt Payment Act).

III. Payment is due thirty (30) DAYS after acceptance of order and receipt of an original invoice, but a_____ percent early payment discount is offered for full payment made within ____(__) DAYS after acceptance of order and receipt of an original invoice.

(1) COMPLETED FORM MUST BE RETURNED WITH BID

REVISE SALARY CHART

"General Decision Number: TX20230023 01/06/2023

Superseded General Decision Number: TX20220023

State: Texas

Construction Types: Heavy (Sewer/Water Treating Plant and Sewer/Incid. to Hwy.)

Counties: Bell, Bosque, Coryell, Falls, Freestone, Hamilton, Hill, Lampasas, Leon, Limestone, McLennan, Milam, Mills, Navarro, Robertson and Williamson Counties in Texas.

WATER & SEWAGE TREATMENT PLANTS AND LIFT PUMP STATIONS

Note: Contracts subject to the Davis-Bacon Act are generally required to pay at least the applicable minimum wage rate required under Executive Order 14026 or Executive Order 13658. Please note that these Executive Orders apply to covered contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but do not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60).

If the contract is entered into on or after January 30, 2022, or the contract is renewed or extended (e.g., an option is exercised) on or after January 30, 2022:	. Executive Order 14026 generally applies to the contract. . The contractor must pay all covered workers at least $16.20 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in 2023.
If the contract was awarded on or between January 1, 2015 and January 29, 2022, and the contract is not renewed or extended on or after January 30, 2022:	. Executive Order 13658 generally applies to the contract. . The contractor must pay all covered workers at least $12.15 per hour (or the applicable wage rate listed on this wage determination,

	if it is higher) for all hours spent performing on that contract in 2023.

The applicable Executive Order minimum wage rate will be adjusted annually. If this contract is covered by one of the Executive Orders and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must still submit a conformance request.

Additional information on contractor requirements and worker protections under the Executive Orders is available at http://www.dol.gov/whd/govcontracts.

Modification Number: 0
Publication Date: 01/06/2023

SUTX1990-003 02/09/1990

	Rates	Fringes
CARPENTER	$ 9.00 **	
CEMENT MASON/CONCRETE FINISHER	$ 8.00 **	
ELECTRICIAN	$ 13.45 **	.80+8 1/2%
Form Builder	$ 7.25 **	
Form Setter	$ 7.25 **	
LABORER	$ 7.25 **	
Pipelayer	$ 7.50 **	
Power equipment operators:		
Bulldozers	$ 7.25 **	
Cranes, Clamshells, Backhoes, Derricks, Dragline, Shovels	$ 7.25 **	
Front End Loaders	$ 10.00 **	
Scrapers	$ 7.25 **	
Steel Setter	$ 9.50 **	
Steel Worker	$ 7.25 **	

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Truck drivers:
     Tandem Axles.............$  7.25 **
     Transit Mix..............$  7.25 **

Utility Laborer..............$  7.25 **

  WELDERS - Receive rate prescribed for craft performing
  operation to which welding is incidental

----------------------------------------------------------------

WELDERS - Receive rate prescribed for craft performing
operation to which welding is incidental.

================================================================

** Workers in this classification may be entitled to a higher
minimum wage under Executive Order 14026 ($16.20) or 13658
($12.15).  Please see the Note at the top of the wage
determination for more information.

Note: Executive Order (EO) 13706, Establishing Paid Sick Leave
for Federal Contractors applies to all contracts subject to the
Davis-Bacon Act for which the contract is awarded (and any
solicitation was issued) on or after January 1, 2017.  If this
contract is covered by the EO, the contractor must provide
employees with 1 hour of paid sick leave for every 30 hours
they work, up to 56 hours of paid sick leave each year.
Employees must be permitted to use paid sick leave for their
own illness, injury or other health-related needs, including
preventive care; to assist a family member (or person who is
like family to the employee) who is ill, injured, or has other
health-related needs, including preventive care; or for reasons
resulting from, or to assist a family member (or person who is
like family to the employee) who is a victim of, domestic
violence, sexual assault, or stalking.  Additional information
on contractor requirements and worker protections under the EO
is available at
https://www.dol.gov/agencies/whd/government-contracts.

Unlisted classifications needed for work not included within
the scope of the classifications listed may be added after
award only as provided in the labor standards contract clauses
(29CFR 5.5 (a) (1) (ii)).


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The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of ""identifiers"" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than ""SU"" or ""UAVG"" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the ""SU"" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

* an existing published wage determination
* a survey underlying a wage determination
* a Wage and Hour Division letter setting forth a position on a wage determination matter
* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour National Office because National Office has responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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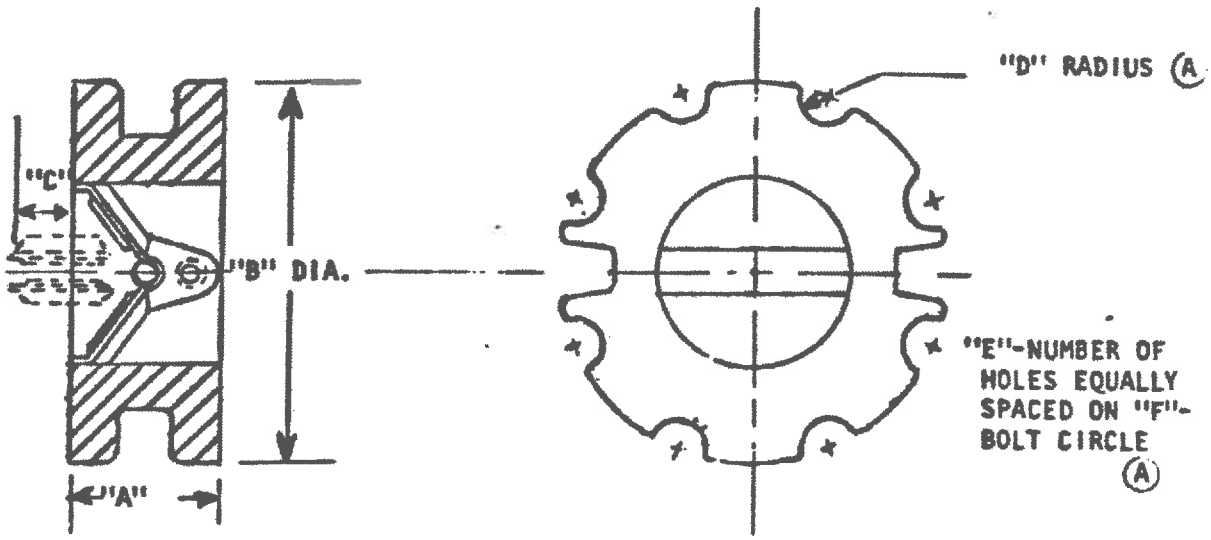
END OF GENERAL DECISIO"

ADDITIONAL PLANS

A-AAD-885



(C) NOTE: THIS CHECK VALVE IS NOT SPRING LOADED, THEREFORE, VALVE MUST BE INSTALLED EITHER HORIZONTALLY WITH THE SHAFT VERTICAL OR VERTICALLY WITH FLAPS UP.

VALVE SIZE	A	B	C	D	E	F	HOFFMAN PART NO.
2"	1-3/8	4-3/4	1/2	3/8	4	4-3/4	0155180
2½"	1-5/8	5	9/16	3/8	4	5-1/2	0155181
3"	1-7/8	6				6	0155182
4"	2-3/8	7				7-1/2	0155183
5"	2-7/8	8				8-1/2	0155184
6"	3-3/8	9				9-1/2	0155185
8"	4-3/8	11				11-3/4	0155186
10"	5-3/8	14-1/4	2-1/2	1/2	12	14-1/4	0155187
12"	6-3/8	17	3	1/2	12	17	0155188
14"	7-3/8	18-3/4	3-1/4	9/16	12	18-3/4	0155189
16"	8-3/8	21-1/4	3-3/4	9/16	16	21-1/4	0155191 (A)
18"	9-3/8	22-3/4	4-1/4	5/8	16	22-3/4	0155192 (A)
20"	10-3/8	25	4-3/8	5/8	20	25	0155190
24"	12-3/8	29-1/2	5-3/4	11/16	20	29-1/2	0155193 (A)

CERTIFIED FOR BRAZOS RIVER WWTP
WACO, TX
YOUR ORDER 0000022
OUR ORDER C002316
BY CHERYL RUSSITANO
HOFFMAN AIR & FILTRATION DIV.
CLARKSON INDUSTRIES INC.

MATERIALS OF CONSTRUCTION

(B) THESE VALVES HAVE CAST IRON BODIES
THE INTERNAL ASSEMBLIES ARE ALUMINUM WITH SILICONE SEAL MEMBERS.
35 PSIG @ 300°F CONTINUOUS DUTY

REVISIONS			
REV	ECN NO	DATE	BY
-	73171	10-9-73	SCT
A	74095	9-5-74	JLM
B	79050	5/23/79	JLM
C	80132	12-3-80	JLM

HOFFMAN AIR & FILTRATION DIV.
CLARKSON INDUSTRIES, INC.

AIR CHECK VALVES
SHORT FORM

DR JLM | DATE 8/22/74 | DIV AS
SCALE | CHKD | APPD
MATL

SIZE A | DRAWING NUMBER AAD-885 | REV C

07682:3

BRAZOS RIVER AUTHORITY

CONSTRUCTION PLANS FOR

WACO METROPOLITAN AREA REGIONAL SEWERAGE SYSTEM

TREATMENT PLANT IMPROVEMENTS

APPROVED BY

THE BRAZOS RIVER AUTHORITY
THIS 13th DAY OF April, 1993.

Roy A Roberts

ROY A. ROBERTS, P.E. GENERAL MANAGER

ROMING-PARKER ASSOCIATES
CONSULTING ENGINEERS
Temple, Texas 76502

STATE OF TEXAS
WILLIAM C. ROMING
18617
REGISTERED
PROFESSIONAL ENGINEER

The seal appearing on this document was authorized by William C. Roming, P.E. 18617, on April 12, 1993.

STATE OF TEXAS
RICK N. KASBERG
70163
REGISTERED
PROFESSIONAL ENGINEER

The seal appearing on this document was authorized by Rick N. Kasberg, P.E. 70163, on April 12, 1993.

RECORD DRAWING
This drawing has been revised to show significant changes made during construction as reported by the Contractor

ROMING-PARKER ASSOCIATES
CONSULTING ENGINEERS
Date: 2/6/95 By:

FILE NO.
9210101

SHEET NO. 1

XDWG PLOT DATE: 4/7/93

INDEX

CIVIL

GENERAL

1. COVER SHEET
2. INDEX AND LOCATION MAP
3. EXISTING GRADING PLAN
4. PROPOSED PLANT LAYOUT
5. PROPOSED PLANT LAYOUT PLAN NO. 1
6. PROPOSED PLANT LAYOUT PLAN NO. 2
7. AERATION BASIN EFFLUENT PIPING DETAILS
8. PROPOSED GRADING AND DRAINAGE PLAN NO. 1
9. PROPOSED GRADING AND DRAINAGE PLAN NO. 2
10. PROPOSED GRADING AND DRAINAGE PLAN NO. 3
11. PROPOSED PAVING LAYOUT PLAN
12. PROPOSED PLANT WATER LAYOUT
13. EXISTING AND PROPOSED PIPE SCHEDULE
14. PROPOSED PIPE PROFILES
15. PROPOSED PIPE PROFILES
16. PROPOSED PIPE PROFILES
17. PROPOSED PIPE PROFILES

BAR SCREENS

18. EXISTING BAR SCREENS DEMOLITION PLAN
19. PROPOSED BAR SCREENS PLAN AND SECTIONS

AERATION BASINS

20. MODIFICATIONS TO EXISTING AERATION BASINS, PLAN
21. EXISTING AERATION BASINS AERATION PIPING MODIFICATIONS
22. PROPOSED AERATION BASIN NO. 5 PLAN
23. PROPOSED AERATION BASIN NO. 5 SECTIONS
24. PROPOSED AERATION BASIN NO. 5 SECTIONS

SAND FILTERS

25. HALF PLAN NO. 1
26. HALF PLAN NO. 2
27. SECTIONS
28. SECTIONS

BLOWER BUILDING

29. PLAN AND SECTIONS

RETURN PUMP STATION

30. PLANS AND SECTIONS

MISCELLANEOUS

31. STANDARD DETAILS
32. STANDARD DETAILS

STRUCTURAL

GENERAL

S1. GENERAL NOTES

BAR SCREENS

S2. PLAN, SECTIONS AND DETAILS

AERATION BASINS

S3. PROPOSED AERATION BASIN NO. 5 – PLAN AND SECTIONS
S4. PROPOSED AERATION BASIN NO. 5 – PLAN AND SECTIONS
S5. PROPOSED AERATION BASIN NO. 5 – SECTIONS AND DETAILS
S6. MODIFICATIONS TO EXISTING AERATION BASINS – SECTIONS AND DETAILS

SAND FILTERS

S7. HALF PLAN NO. 1
S8. HALF PLAN NO. 2
S9. SECTIONS
S10. SECTIONS
S11. SECTIONS
S12. SECTIONS
S13. DETAILS

BLOWER BUILDING

S14. PLAN AND SECTIONS

RETURN PUMP STATION

S15. PLAN AND SECTIONS

JUNCTION BOX "B"

S16. PLAN AND SECTIONS

JUNCTION BOX "D"

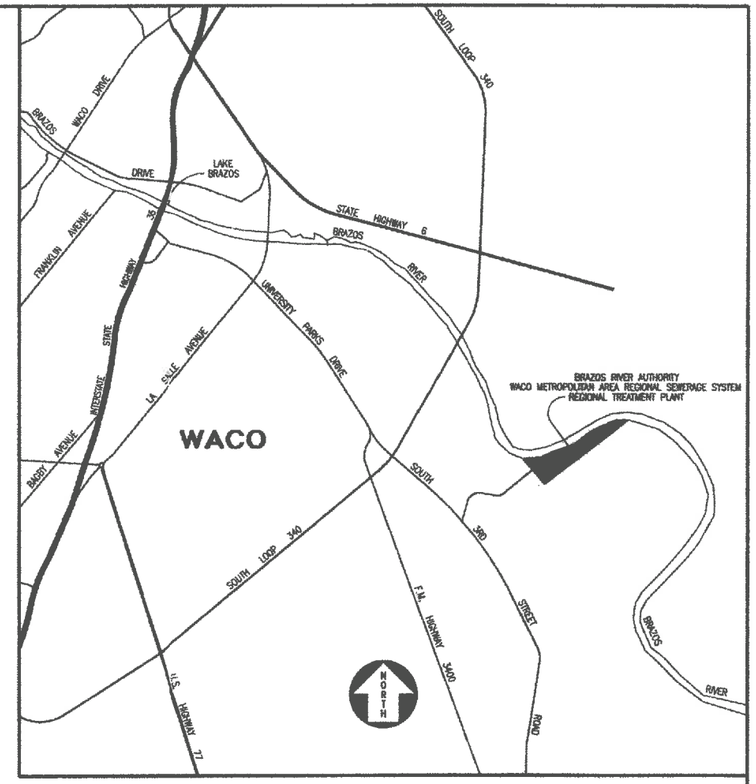
S17. PLAN AND SECTIONS

MISCELLANEOUS

S18. STANDARD STRUCTURAL DETAILS
S19. STANDARD STRUCTURAL DETAILS

ELECTRICAL

E1. SITE PLAN, CONDUIT & CABLE SCHEDULE
E2. POWER RISER & ELEVATED SWITCHBOARD & MCCA, MCCB, INSTRUMENTATION DIAGRAMS
E3. LEGEND & LIGHT FIXTURE SCHEDULE
E4. BLOWER BUILDING
E5. SAND FILTER PUMP STATION & SAND FILTERS
E6. DETAILS FOR SAND FILTER PUMP STATION AND AERATION BASINS PLAN
E7. RETURN PUMP STATION PLAN AND DETAILS
E8. DETAILS AND SECTIONS FOR SAND FILTER PUMP STATION AND RETURN PUMP STATIONS
E9. CONTROL DIAGRAMS
E10. CONTROL DIAGRAMS
E11. TYPICAL DETAILS
E12. TYPICAL DETAILS



LOCATION MAP

SCALE: 1" = 3000'

RECORD DRAWING
This drawing has been revised to show significant changes made during construction as reported by the Contractor

ROMING-PARKER ASSOCIATES
CONSULTING ENGINEERS
DATED: 2/16/95 By: [signature]

The seal appearing on this document was authorized by Rick N. Kasberg, P.E. 70163, on April 12, 1993.

NO.	DATE	REVISION	BY

PROJECT NO. 92 – 101
DRAWN BY JBG & DLK
DESIGNED BY WILLIAM J. KOTLAN
APPROVED BY [signature]
DATE 4-21-93

STATE OF TEXAS — RICK N. KASBERG — 70163 — REGISTERED PROFESSIONAL ENGINEER

RPA
ROMING-PARKER ASSOCIATES
CONSULTING ENGINEERS
TEMPLE, TEXAS 76502

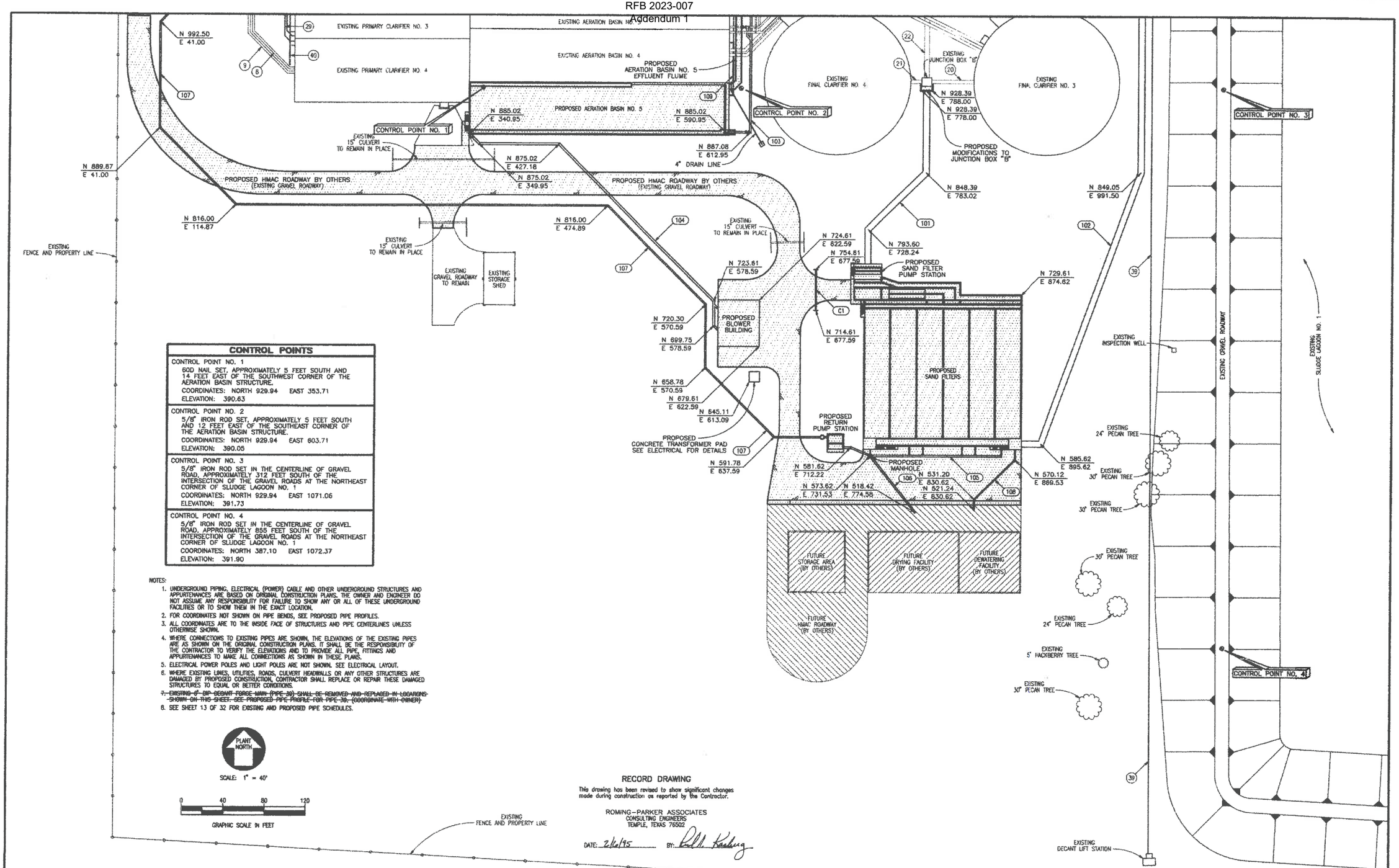
BRAZOS RIVER AUTHORITY
WACO METROPOLITIAN AREA REGIONAL SEWERAGE SYSTEM
TREATMENT PLANT IMPROVEMENTS

INDEX AND LOCATION MAP

FILE NO. 9210102

SHEET NO. 2
OF 32 SHEETS

92 580 PLOT DATE: 5/21/93



CONTROL POINTS

CONTROL POINT NO. 1
60D NAIL SET, APPROXIMATELY 5 FEET SOUTH AND 14 FEET EAST OF THE SOUTHWEST CORNER OF THE AERATION BASIN STRUCTURE.
COORDINATES: NORTH 929.94 EAST 353.71
ELEVATION: 390.63

CONTROL POINT NO. 2
5/8" IRON ROD SET, APPROXIMATELY 5 FEET SOUTH AND 12 FEET EAST OF THE SOUTHEAST CORNER OF THE AERATION BASIN STRUCTURE.
COORDINATES: NORTH 929.94 EAST 603.71
ELEVATION: 390.05

CONTROL POINT NO. 3
5/8" IRON ROD SET IN THE CENTERLINE OF GRAVEL ROAD, APPROXIMATELY 312 FEET SOUTH OF THE INTERSECTION OF THE GRAVEL ROADS AT THE NORTHEAST CORNER OF SLUDGE LAGOON NO. 1
COORDINATES: NORTH 929.94 EAST 1071.06
ELEVATION: 391.73

CONTROL POINT NO. 4
5/8" IRON ROD SET IN THE CENTERLINE OF GRAVEL ROAD, APPROXIMATELY 855 FEET SOUTH OF THE INTERSECTION OF THE GRAVEL ROADS AT THE NORTHEAST CORNER OF SLUDGE LAGOON NO. 1
COORDINATES: NORTH 387.10 EAST 1072.37
ELEVATION: 391.90

NOTES:

1. UNDERGROUND PIPING, ELECTRICAL (POWER) CABLE AND OTHER UNDERGROUND STRUCTURES AND APPURTENANCES ARE BASED ON ORIGINAL CONSTRUCTION PLANS. THE OWNER AND ENGINEER DO NOT ASSUME ANY RESPONSIBILITY FOR FAILURE TO SHOW ANY OR ALL OF THESE UNDERGROUND FACILITIES OR TO SHOW THEM IN THE EXACT LOCATION.
2. FOR COORDINATES NOT SHOWN ON PIPE BENDS, SEE PROPOSED PIPE PROFILES.
3. ALL COORDINATES ARE TO THE INSIDE FACE OF STRUCTURES AND PIPE CENTERLINES UNLESS OTHERWISE SHOWN.
4. WHERE CONNECTIONS TO EXISTING PIPES ARE SHOWN, THE ELEVATIONS OF THE EXISTING PIPES ARE AS SHOWN ON THE ORIGINAL CONSTRUCTION PLANS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE ELEVATIONS AND TO PROVIDE ALL PIPE, FITTINGS AND APPURTENANCES TO MAKE ALL CONNECTIONS AS SHOWN IN THESE PLANS.
5. ELECTRICAL POWER POLES AND LIGHT POLES ARE NOT SHOWN. SEE ELECTRICAL LAYOUT.
6. WHERE EXISTING LINES, UTILITIES, ROADS, CULVERT HEADWALLS OR ANY OTHER STRUCTURES ARE DAMAGED BY PROPOSED CONSTRUCTION, CONTRACTOR SHALL REPLACE OR REPAIR THESE DAMAGED STRUCTURES TO EQUAL OR BETTER CONDITIONS.
7. ~~EXISTING 6" DIP DECANT FORCE MAIN (PIPE 39) SHALL BE REMOVED AND REPLACED IN LOCATIONS SHOWN ON THIS SHEET. SEE PROPOSED PIPE PROFILE FOR PIPE 39. (COORDINATE WITH OWNER)~~
8. SEE SHEET 13 OF 32 FOR EXISTING AND PROPOSED PIPE SCHEDULES.

RECORD DRAWING
This drawing has been revised to show significant changes made during construction as reported by the Contractor.
ROMING-PARKER ASSOCIATES
CONSULTING ENGINEERS
TEMPLE, TEXAS 76502
DATE: 2/16/95 BY: Rick N. Kasberg

The seal appearing on this document was authorized by Rick N. Kasberg, P.E. 70163, on April 20, 1994.

NO.	DATE	REVISION	BY
2	4/20/94	REVISED PROPOSED PAVEMENT, PIPES 108 AND 108, AND FUTURE STRUCTURE AND FUTURE PAVEMENT	RNK
1	5/27/93	ADDED NOTE 8	RNK

PROJECT NO. 92 - 101
DRAWN BY DOUGLAS L. KRUMNOW
DESIGNED BY WILLIAM J. KOTLAN
APPROVED BY
DATE

STATE OF TEXAS · RICK N. KASBERG · 70163 · REGISTERED PROFESSIONAL ENGINEER

RPA
ROMING-PARKER ASSOCIATES
CONSULTING ENGINEERS
TEMPLE, TEXAS 76502

BRAZOS RIVER AUTHORITY
WACO METROPOLITAN AREA REGIONAL SEWERAGE SYSTEM
TREATMENT PLANT IMPROVEMENTS

PROPOSED PLANT LAYOUT
PLAN NO. 2

FILE NO. 9210106
SHEET NO. 6 OF 32 SHEETS

DG DWG PLOT DATE: 3-17-94

PROPOSED PIPE SCHEDULE

PIPE NUMBER	PIPE DIAMETER	TYPE OF PIPE	BEGINNING POINT	ENDING POINT	DESCRIPTION
101	72"	RCCP	JUNCTION BOX "B"	PROP. SAND FILTER PUMP STA.	SETTLED SEWAGE
102	72"	RCCP	PROP. SAND FILTER PUMP STA.	JUNCTION BOX "D"	FILTERED EFFLUENT
103	20"	RCCP/DIP	EXISTING RAS LINES	PROP. AERATION BASIN NO. 5	RETURN ACTIVATED SLUDGE
104	24"	DIP	PROP. BLOWER BUILDING	PROP. AERATION BASIN NO. 5	AIR
105	18"	RCP/DIP	PROP. SAND FILTER BACKWASH	PROP. RETURN PUMP STA.	BACKWASH DRAIN
106	15"	PVC	FUTURE BIOSOLIDS FACILITY	PROP. MANHOLE	FUTURE BIOSOLIDS FACILITY DRAIN
107	18"	RCCP/DIP	PROPOSED RETURN PUMP STA.	BAR SCREENS	RETURN PUMP STA. EFFLUENT
108	12"	RCCP/DIP	SAND FILTER EFFLUENT DROP BOX	FUTURE BIOSOLIDS DEWATERING FAC.	FUTURE PLANT WATER
109	8"	DIP	AERATION BASIN NO. 5	PLANT DRAIN PIPING	AERATION BASIN NO. 5 DRAIN

PROPOSED CULVERT SCHEDULE

PIPE	COORDINATES	STATE DEPT. OF HIGHWAYS AND PUBLIC TRANSPORTATION STANDARD SECTION (NOTE 1)
C1	℄ SOUTH HEADWALL N 714.61/ E 677.59	PRECAST END SECTION – TYPE 2

PROPOSED MANHOLE SCHEDULE

MANHOLE NUMBER	CONNECTING PIPE
M1	PIPES 105 AND 106
M2	PIPE 107

EXISTING PIPE SCHEDULE

PIPE NUMBER	PIPE DIAMETER	TYPE OF PIPE	BEGINNING POINT	ENDING POINT	DESCRIPTION	PROPOSED ACTION
1	66"	RCCP	JUNCTION BOX "A"	EXISTING BAR SCREEN STRUCTURE	RAW SEWAGE	TO REMAIN
2	24"	RCCP	INFLUENT SPLITTER BOX	PRIMARY CLARIFIER NO. 1	SCREENED RAW SEWAGE	TO REMAIN
3	24"	RCCP	INFLUENT SPLITTER BOX	PRIMARY CLARIFIER NO. 1	SCREENED RAW SEWAGE	TO REMAIN
4	24"	RCCP	INFLUENT SPLITTER BOX	PRIMARY CLARIFIER NO. 2	SCREENED RAW SEWAGE	TO REMAIN
5	24"	RCCP	INFLUENT SPLITTER BOX	PRIMARY CLARIFIER NO. 2	SCREENED RAW SEWAGE	TO REMAIN
6	24"	RCCP	INFLUENT SPLITTER BOX	PRIMARY CLARIFIER NO. 3	SCREENED RAW SEWAGE	TO REMAIN
7	24"	RCCP	INFLUENT SPLITTER BOX	PRIMARY CLARIFIER NO. 3	SCREENED RAW SEWAGE	TO REMAIN
8	24"	RCCP	INFLUENT SPLITTER BOX	PRIMARY CLARIFIER NO. 4	SCREENED RAW SEWAGE	TO REMAIN
9	24"	RCCP	INFLUENT SPLITTER BOX	PRIMARY CLARIFIER NO. 4	SCREENED RAW SEWAGE	TO REMAIN
10	36"	RCCP	AERATION BASIN NO. 1	FINAL CLARIFIER NO. 1	BIOLOGICALLY STABILIZED SEWAGE	TO REMAIN
11	36"	RCCP	AERATION BASIN NO. 1	FINAL CLARIFIER NO. 1	BIOLOGICALLY STABILIZED SEWAGE	TO REMAIN
12	36"	RCCP	AERATION BASIN NO. 2	FINAL CLARIFIER NO. 2	BIOLOGICALLY STABILIZED SEWAGE	TO REMAIN
13	36"	RCCP	AERATION BASIN NO. 2	FINAL CLARIFIER NO. 2	BIOLOGICALLY STABILIZED SEWAGE	TO REMAIN
14	36"	RCCP	AERATION BASIN NO. 3	FINAL CLARIFIER NO. 3	BIOLOGICALLY STABILIZED SEWAGE	TO REMAIN
15	36"	RCCP	AERATION BASIN NO. 3	FINAL CLARIFIER NO. 3	BIOLOGICALLY STABILIZED SEWAGE	TO REMAIN
16	36"	RCCP	AERATION BASIN NO. 4	FINAL CLARIFIER NO. 4	BIOLOGICALLY STABILIZED SEWAGE	TO REMAIN
17	36"	RCCP	AERATION BASIN NO. 4	FINAL CLARIFIER NO. 4	BIOLOGICALLY STABILIZED SEWAGE	TO REMAIN
18	42"	RCCP	FINAL CLARIFIER NO. 1	JUNCTION BOX "C"	SETTLED SEWAGE	TO REMAIN
19	42"	RCCP	FINAL CLARIFIER NO. 2	JUNCTION BOX "C"	SETTLED SEWAGE	TO REMAIN
20	42"	RCCP	FINAL CLARIFIER NO. 3	JUNCTION BOX "B"	SETTLED SEWAGE	TO REMAIN
21	42"	RCCP	FINAL CLARIFIER NO. 4	JUNCTION BOX "B"	SETTLED SEWAGE	TO REMAIN
22	54"	RCCP	JUNCTION BOX "B"	JUNCTION BOX "C"	SETTLED SEWAGE	TO REMAIN
23	72"	RCCP	JUNCTION BOX "C"	CHLORINE SPLITTER BOX	SETTLED SEWAGE	SEE JUNCTION BOX "D"
24	54"	RCCP	CHLORINE SPLITTER BOX	CHLORINE CONTACT CHAMBER	SETTLED SEWAGE	TO REMAIN
25	38"	RCCP	CHLORINE SPLITTER BOX	CHLORINE CONTACT CHAMBER	SETTLED SEWAGE	TO REMAIN
26	6"	DIP	PRIMARY CLARIFIER NO. 1	PRIMARY SLUDGE PUMP STA.	PRIMARY SLUDGE	TO REMAIN
27	6"	DIP	PRIMARY CLARIFIER NO. 2	PRIMARY SLUDGE PUMP STA.	PRIMARY SLUDGE	TO REMAIN
28	6"	DIP	PRIMARY CLARIFIER NO. 3	PRIMARY SLUDGE PUMP STA.	PRIMARY SLUDGE	TO REMAIN
29	6"	DIP	PRIMARY CLARIFIER NO. 4	PRIMARY SLUDGE PUMP STA.	PRIMARY SLUDGE	TO REMAIN
30	6"	DIP	PRIMARY SLUDGE PUMP STA.	DEGRITTER	PRIMARY SLUDGE	TO REMAIN
31	8"	DIP	PRIMARY SLUDGE PUMP STA.	DEGRITTER	PRIMARY SLUDGE	TO REMAIN
32	20"	RCCP	RAS PUMP STA. NO. 1	AERATION BASIN NO. 1	RETURN ACTIVATED SLUDGE	TO REMAIN
33	20"	RCCP	RAS PUMP STA. NO. 2	AERATION BASIN NO. 2	RETURN ACTIVATED SLUDGE	TO REMAIN
34	20"	RCCP	RAS PUMP STA. NO. 3	AERATION BASIN NO. 3	RETURN ACTIVATED SLUDGE	TO REMAIN
35	20"	RCCP	RAS PUMP STA. NO. 4	AERATION BASIN NO. 4	RETURN ACTIVATED SLUDGE	TO REMAIN
36	20"	RCCP	LINE 32	LINE 35	RAS TRANSFER	SEE LINE 103
37	8"	DIP	WASTE ACTIVATED SLUDGE PUMPS	SLUDGE MIX TANK	WASTE ACTIVATED SLUDGE	TO REMAIN
38	6"	DIP	DIGESTER PUMP STA.	LAGOONS	DIGESTED SLUDGE	SEE LINE 102
39	6"	DIP	DECANT LIFT STA.	JUNCTION BOX AT DEGRITTER	DECANT	TO REMAIN
40	8"	DIP	PRIMARY CLARIFIER	DRAIN MANHOLE "A"	PRIMARY CLARIFIER DRAIN	TO REMAIN
41	8"	DIP	AERATION BASINS	DRAIN MANHOLE "A"	AERATION BASIN DRAIN	SEE LINE 109
42	12"	DIP	RAS LINES	DRAIN MANHOLE "A"	FINAL CLARIFIER DRAIN	TO REMAIN

NOTES:
1. SEE PROPOSED LAYOUT ON SHEETS 5, 6 AND 7 FOR LAYOUT OF EXISTING PIPING.
2. END SECTIONS TAKEN FROM STATE DEPARTMENT OF HIGHWAYS AND PUBLIC TRANSPORTATION – BRIDGE DIVISION "CULVERT LAYOUT STANDARDS".
3. DIP – DUCTILE IRON PIPE
   HDG – HOT DIPPED GALVANIZED STEEL PIPE
   RCCP – REINFORCED CONCRETE CYLINDER PIPE
   RCP – REINFORCED CONCRETE PIPE
4. AT ALL LOCATIONS WHERE PIPES ARE SHOWN THROUGH WALLS OF PROPOSED STRUCTURES, THE PIPE SHALL HAVE A STANDARD WATER RING TO PREVENT LEAKAGE. PIPE 101 SHALL HAVE AN F–TYPE WALL THIMBLE AS SPECIFIED IN SECTION G19 OF THE SPECIFICATIONS.

RECORD DRAWING
This drawing has been revised to show significant changes made during construction as reported by the Contractor.
ROMING–PARKER ASSOCIATES
CONSULTING ENGINEERS
TEMPLE, TEXAS 76502
DATE: 2/16/95 BY: [signature]

The seal appearing on this document was authorized by Rick N. Kasberg, P.E. 70163, on April 20, 1994.

NO.	DATE	REVISION	BY
1	4/20/94	CHANGED PIPE 106 FROM 10" DIP TO 15" PVC	RNK

PROJECT NO. 92 – 101
DRAWN BY JAMES B. GOOLSBY
DESIGNED BY WILLIAM J. KOTLAN
APPROVED BY
DATE

STATE OF TEXAS · RICK N. KASBERG · 70163 · REGISTERED PROFESSIONAL ENGINEER

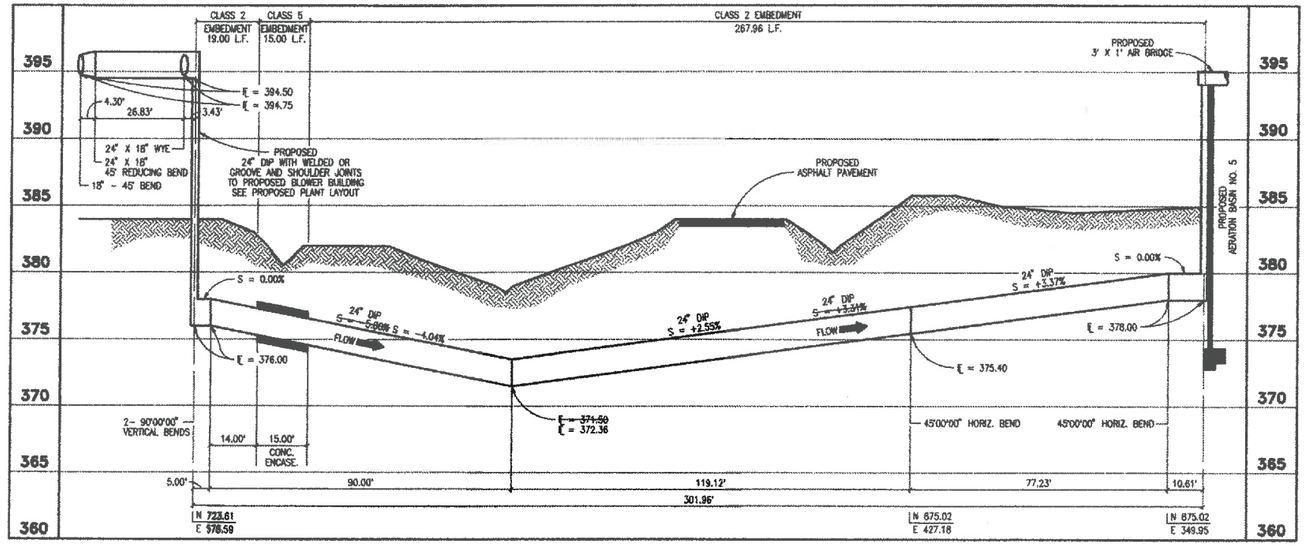
RPA ROMING–PARKER ASSOCIATES
CONSULTING ENGINEERS
TEMPLE, TEXAS 76502

BRAZOS RIVER AUTHORITY
WACO METROPOLITIAN AREA REGIONAL SEWERAGE SYSTEM
TREATMENT PLANT IMPROVEMENTS

EXISTING AND PROPOSED PIPE SCHEDULE

FILE NO. 9210113
SHEET NO. 13
OF 32 SHEETS

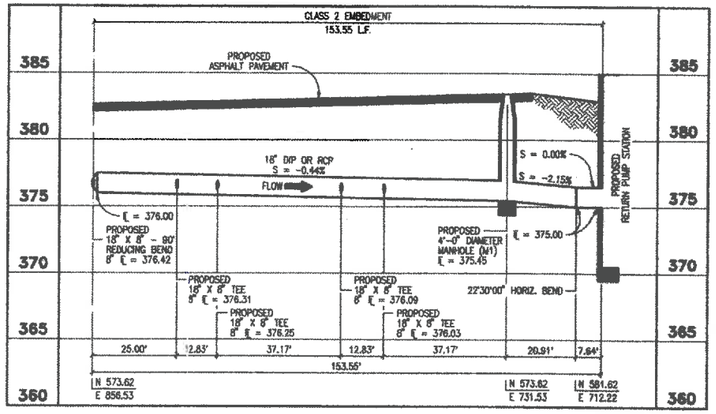
12.DWG PLOT DATE: 4-21-94



BLOWER BUILDING TO AERATION BASIN
PIPE 104

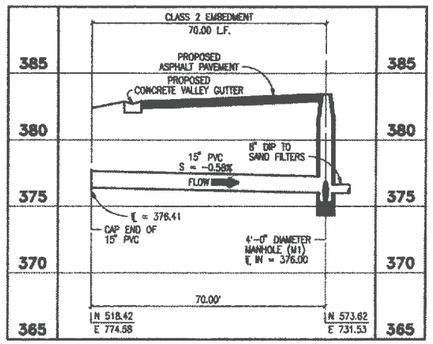
PIPE 104 SHALL BE 24" DUCTILE IRON PIPE (DIP) WITH WELDED OR GROOVE AND SHOULDER JOINTS
JOINTS SHALL BE WELDED BEFORE GALVANIZING, GROOVE AND SHOULDER, OR FLANGED JOINTS.

NOTE:
THESE SCALES APPLY TO ALL PIPE PROFILES ON THIS SHEET.



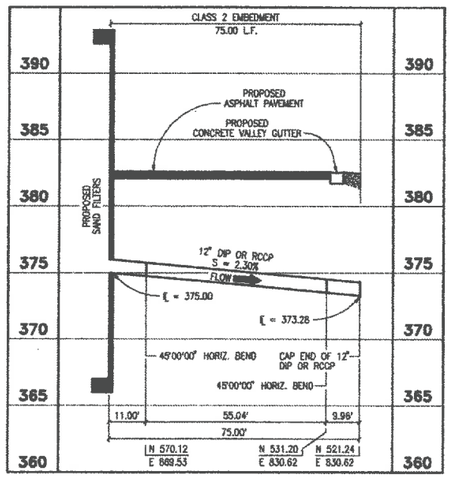
SAND FILTERS TO RETURN PUMP STATION
PIPE 105

PIPE 105 SHALL BE 18" DIP WITH PUSH ON JOINTS OR RCP WITH BELL AND SPIGOT JOINTS



FUTURE DEWATERING AND DRYING BUILDING TO RETURN PUMP STATION (CAPPED)
PIPE 106

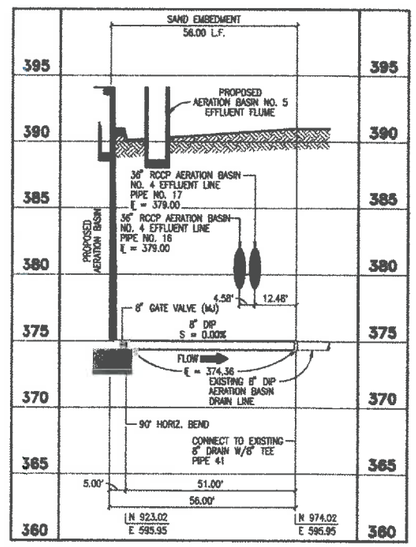
PIPE 106 SHALL BE 15" PVC WITH BELL AND SPIGOT JOINTS



SAND FILTER EFFLUENT TO FUTURE DEWATERING AND DRYING BUILDING (CAPPED)
PIPE 108

PIPE 108 SHALL BE 12" DIP WITH RESTRAINED JOINTS OR RCCP WITH BELL AND SPIGOT JOINTS

RECORD DRAWING
This drawing has been revised to show significant changes made during construction as reported by the Contractor.
ROMING-PARKER ASSOCIATES
CONSULTING ENGINEERS
TEMPLE, TEXAS 76502
DATE: 2/16/95 BY:



PROPOSED AERATION BASIN NO. 5 TO EXISTING AERATION BASIN NO. 4 DRAIN
PIPE 109

PIPE 109 SHALL BE 8" DIP WITH PUSH ON JOINTS

The seal appearing on this document was authorized by Rick N. Kasberg, P.E. 70163, on May 9, 1994.

NO.	DATE	REVISION	BY
3	5/9/94	REVISED GROUND LINE ON PIPES 105, 106 & 108	RNK
2	4/20/94	REVISED PIPE 106 FROM 10" DIP TO 15" PVC AND REVISED PIPE 108 HORIZ. AND VERT. LOCATION	RNK
1	5/27/93	REVISED ABOVE GROUND AIR HEADER PIPING, PIPE 104	RNK

PROJECT NO. 92 - 101
DRAWN BY DOUGLAS L. KRUMNOW
DESIGNED BY KRISTINE B. ANDREWS
APPROVED BY
DATE

STATE OF TEXAS — RICK N. KASBERG — 70163 — REGISTERED PROFESSIONAL ENGINEER

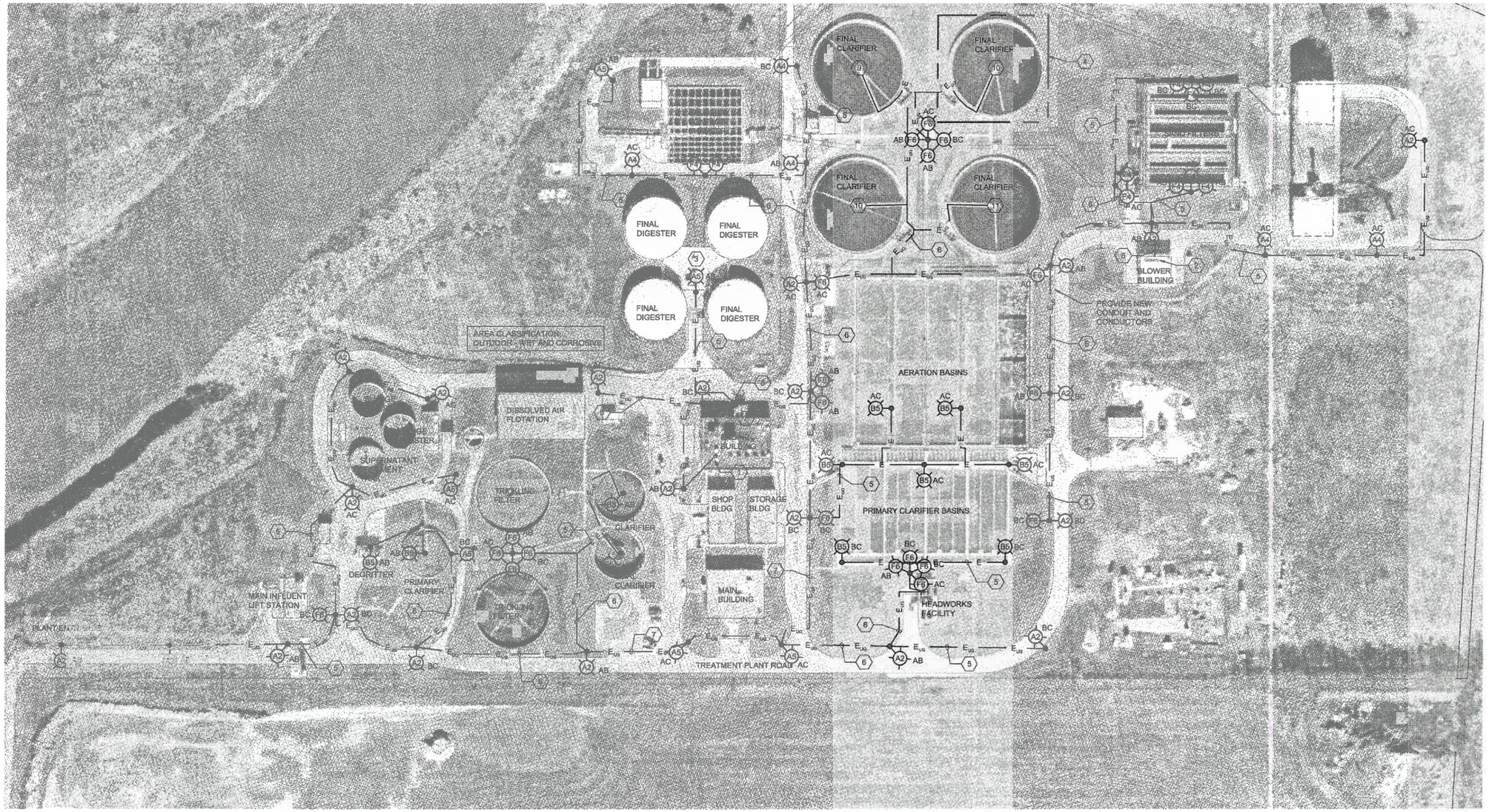
RPA ROMING-PARKER ASSOCIATES
CONSULTING ENGINEERS
TEMPLE, TEXAS 76502

BRAZOS RIVER AUTHORITY
WACO METROPOLITAN AREA REGIONAL SEWERAGE SYSTEM
TREATMENT PLANT IMPROVEMENTS

PROPOSED PIPE PROFILES
PIPE NUMBERS 104, 105, 106, 108 AND 109

FILE NO. 9210116
SHEET NO. 16
OF 32 SHEETS

16.DWG PLOT DATE 5-9-94



GENERAL NOTES:

1. EXISTING DUCTBANK ROUTING SHOWN IS BASED ON EXISTING INFORMATION. PRIOR TO CONSTRUCTION WORK, FIELD VERIFY LOCATIONS, DIMENSIONS AND ELEVATIONS OF EXISTING UTILITIES AND STRUCTURES THAT PERTAIN TO AND OR AFFECT CONSTRUCTION OF THIS PROJECT.
2. EXISTING CONCRETE LIGHT POLE BASES, LIGHT POLES AND ROADWAY LIGHT FIXTURES SHALL BE REMOVED. FURNISH AND INSTALL ALL REQUIRED CONDUIT AND FITTINGS TO ACCOMMODATE NEW POLE BASE ON SAME LOCATION. EXISTING LIGHT FIXTURES SHALL BE RETURNED TO OWNER.
3. ALL B1 AND B5 TYPE FIXTURES SHALL BE STANCHION MOUNTED ON HANDRAILS. BOTTOM OF FIXTURES AT 8' ABOVE FLOOR. REFER TO INSTALLATION DETAIL ON ELECTRICAL DETAIL SHEET.
4. 'AB', 'BC', AND 'AC' TAGS ON THIS PLAN IDENTIFY THE CIRCUIT LEGS TO BE USED ON THE LIGHTING FIXTURE.
5. ALL NEW UNDERGROUND PVC CONDUIT SHALL BE 1-1/2".

KEYNOTES:

1. EXISTING DISTRIBUTION PANEL 'DA'. REUSE EXISTING 30A SITE LIGHTING BREAKER.
2. REUSE EXISTING 30A/3 POLE LIGHTING CONTACTOR ON EXISTING MOTOR CONTROL CENTER 'MCC-B'.
3. MOUNT FIXTURE ON 25 FOOT HIGH LIGHT POLE.
4. REFER TO CLARIFIER ELECTRICAL PLAN FOR LIGHTING DESIGN, TYPICAL FOR ALL 4 FINAL CLARIFIERS.
5. 2#8, #10G, 1-1/2" C.
6. 3#8, #10G, 1-1/2" C.
7. 3#6, #10G, 1-1/2" C.
8. REMOVE EXISTING CONCRETE LIGHT POLE BASE AND REPLACE WITH HANDHOLE.
9. CONNECT CLARIFIER AREA LIGHTING TO A AND B LEGS.
10. CONNECT CLARIFIER AREA LIGHTING TO B AND C LEGS.
11. CONNECT CLARIFIER AREA LIGHTING TO A AND C LEGS.

TRUE NORTH

0 80 160
SCALE: 1" = 80'

TEXAS P.E. FIRM
Registration No. F-754

ISSUE	DATE	DESCRIPTION
0	7/18/17	ISSUED FOR BID

PROJECT MANAGER	JOHN MARLER
DESIGNED BY	P. K. DAVILA
DESIGNED BY	O. JONGUITUD
DRAWN BY	O. JONGUITUD
CHECKED BY	D. F. BESINGER
DATE	JULY 18, 2017
PROJECT NUMBER	00000010065920

STATE OF TEXAS
PAUL K. DAVILA
100243
LICENSED
PROFESSIONAL ENGINEER
18 JULY 2017

CITY OF WACO
WMARSS CENTRAL WWTP LIGHTING IMPROVEMENTS

ELECTRICAL OVERALL SITE PLAN

0 1" 2"

FILENAME 01E-01.DWG
SCALE 1" = 80'

SHEET 01E-01