516 8TH Avenue West
PO Box 1209
Palmetto, Florida 34221
Phone (941)723-4570
Fax (941) 723-4576
nhaisley@palmettofl.org
www.palmettofl.org

Date: November 14, 2018

Re: WWTP Equalization Basin
FDEP#WW41020
COP Project #17-728

ADDENDUM #1

To All Plan Holders and Meeting Attendees:

Bidders are hereby notified that this addendum shall be made a part of the above-named solicitation and final contract documents. The item(s) listed below are issued to add to, modify, and clarify the solicitation. The item(s) shall have the same force and effect as the original solicitation and contract documents. Bids to be submitted shall conform to the addition and revision listed herein.

Q & A

Can you tell me if there is a DBE/DWBE goal on this project? If so, what is the DBE/DWBE goal?
Is this a Federal Cap Grant Project?
The minority goal is located on page FDEP-14; cited in Paragraph 3; "Goals for minority utilization can be found . . ."
This is not a Federal cap Grant project. Therefore DBE/DWBE goal does not apply.

Please provide copies of original pdf drawings created directly from CAD files.
New set of unsealed plans are available upon request. Please email nhaisley@palmettofl.org to obtain.

Section 00100 Page 9 - Item 10. Bid Bond Guarantee: 10.1 All bids must be accompanied by a Bid Bond guarantee in the sum of five percent (5%) of the base bid, etc. The "Bid Bond" form - Section 00430 Page 28 shows (10%) of the contract bid. Please advise as to what percentage is to be used.
The correct sum is five percent (5%) of the base bid. A revised Bid Bond Form is attached to this document.

Drawing E-10 and specification 16050, 2.01.D indicate the Motor Control Center (MCC) shall be provided in a N4X enclosure. Due to temperature rating and ventilation requirements, Schneider Electric MCC's cannot be provided as N4X but instead as Nema 3R Stainless Steel. Please advise if this is an acceptable alternative enclosure rating.
NEMA 3R stainless steel is an acceptable enclosure rating for the MCC.

Drawing P-12 depicts the pipes from the two Fermentation Tanks to the Grit Removal System as 18" and the two pipes to the Equalization Basin as 12" and a note on the plans directs you to see Drawing S-11 for the detail on the penetrations into the tank. The detail on Drawing S-11 depicts a penetration with a core opening of 24" and a new 16" diameter wall pipe. This needs correction.

The P-12 drawings are correct in showing 18 pipe penetrations on the South side of the Fermentation Tanks, and 12-inch pipe penetrations on the Northeast side of the Fermentation tanks. The detail drawing provided on S-11 applies to the 18-inch and 12-inch penetrations as well. Core opening shall be a recommended by the link seal manufacturer for the specified size wall pipe.

Drawing P-15 The schedule depicts the service water as PVC DR18 and solvent weld. The specification 15200-4 Section "C" Paragraph "D" contradicts the schedule and has the PVC DR18 as Restrained Joint, please clarify.

The service water piping shall be Schedule 80 PVC with solvent welded joints.

Drawing P-12 The Fermentation Tanks have proposed Isolation Valves on the 18" pipes, my question are Isolation Valves on the 12" pipes needed.
Isolation valves are not needed on the 12-inch pipes. The 12-inch pipes can be isolated at the pump discharge header.

With regards to Spec Section 15060 (Part 2 Products 2.01), are the listed manufacturers for pipe hangers and support limited to only these companies or can we provide products from other manufacturers?
See paragraph B.2 of specification section 01600. If there is no "or equal" included in the list, the Contractor will need to select from one of the named manufacturers.

Comments

As part of the pre-bid meeting, a site visit was extended to all in attendance. If you would like to visit the site, please contact me at nhaisley@palmettofl.org with your request.

Several requests have been made as to product substitutions. No alternate bid items shall be considered at this time. Per the Specifications, requests for substitutions shall only be considered AFTER award of the Contract. Bidders are instructed to bid according to the named manufacturers in the Specifications. After award of the contract, the Contractor may request a substitution and offer a credit back to the City due to the changes.

Please see attached Spec Section 01631, Product Substitutions. As mentioned during the pre-bid, we inadvertently left this section out of the bid docs. Also attached is the revised table of contents page.

As-built plans for the original WWTP are attached to this addendum.

The Bid Form has been updated (as to form only). An Excel file is attached to this document. In order to ensure the accuracy of all calculations, form MUST be submitted in **Excel format**; handwritten bid form will NOT be accepted.

Attachments

If you are obtaining this Addendum from our web site, you may need to email nhaisley@palmettofl.org to obtain some the files listed below as attachments.

Bid Bond Form

Bid Form Revision 1.0 (File)

Spec Section 01631 - Product Substitutions (4-Pages)

Table of Contents (Revised Page 2 w/01631)

As-built plans for the original WWTP (File)

CITY OF PALMETTO
WWTP EQUALIZATION BASIN
COP PROJECT #17-728

SECTION 00430

BID BOND

KNOW ALL MEN BY THESE PRESENT, that the undersigned, _____ as **PRINCIPAL, AND** _____ Surety are held and firmly bound unto the City of Palmetto hereinafter called the City, in the penal sum of (5% of the contract bid) _____, ($_____) lawful money of the United States, for the payment of which sum will and truly to be made, we bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLICATION IS SUCH, that whereas the Principal has submitted the accompanying bid, dated _____, for _____, ($_____).

NOW, THEREFORE, if the Principal shall not withdraw said bid within the period specified therein after the opening of the same, or if no period be specified, within 30 calendar days after the said opening, and shall within the period specified therefore, or if no period be specified, within 10 calendar days after the prescribed forms are presented to him for signature, enter into a written contract with the City in accordance with the bid as accepted, and give bond with good and sufficient surety or sureties, as may be required, for the faithful performance and proper fulfillment of such contract; or in the event of the withdrawal of said bid within the period specified, or the failure to enter into such contract and give such bond within the time specified, if the Principal shall pay the City the difference between the amount specified in said bid and the amount for which the City may procure the required work or supplies or both, if the latter be in excess of the former, then the above obligation shall be void and of no effect, otherwise to remain in full force.

IN WITNESS WHEREOF, the above-bounded parties have executed this instrument under their several seals this _____ day of _____, 2019, the name and corporate seal of each corporate party being hereto affixed and these present signed by it undersigned representative, pursuant to authority of its governing body.

Principal (Print Full Name)	Surety (Print Full Name)
_____	_____
By: _____ (L.S.)	By: _____ (L.S.)
Title: _____ (Seal)	Title: _____ (Seal)

Countersigned By: _____

* Attorney-in-fact, State of _____
* Power-of-attorney for person signing for surety company must be attached to bond.

Section 00300
Proposal and Bid Form (Rev 1.0)
Palmetto WWTF Equalization Basin Improvements

This is the Bid From: _____

To: Purchasing Agent
City of Palmetto
City Hall
516 8th Avenue West
Palmetto, FL 34221

Date: _____

Pursuant to and in compliance with your Invitation to Bid dated TBD the Instruction to Bidders and other documents relating thereto, the undersigned hereby proposes to furnish all labor, equipment, materials, and incidentals necessary and to construct Palmetto WWTF Equalization Basin Improvements, complete and in approved operational condition required by and in strict accordance with the contract documents, schedules, drawings, and all addenda, if any, issued prior to the date of this Proposal at the bid prices listed herein as follows:

BID ITEM	DESCRIPTION	QUANT.	UNIT	UNIT COST	TOTAL COST
1 Mobilization & Demobilization					
1.1	Mobilization/Demobilization, maximum 5% of sum of Bid Items #2 - #8	1	LS		$ -
				Subtotal	$ -
2 Site Civil					
2.1	Demolition and removal of existing buried clarifier tank, trickling filter tanks, sidewalk removal, pavement removal, relocation of existing pipelines	1	LS		$ -
2.2	Excavation for Equalization Basin including any required dewatering, site preparation, backfilling, grading, seeding and sodding	1	LS		$ -
2.3	EQ Basin and grit area drains including all required pipe, fittings, cleanouts, and manhole connections	1	LS		$ -
2.4	Doghouse Manholes	2	EA		$ -
2.5	Pavement including any required subgrade preparation, base course, wearing course, and sealants	75	SY		$ -
2.6	Concrete sidewalk and equipment pads, including all required formwork, reinforcement, curing, and testing	65	CY		$ -
2.7	Bollards and signs	1	LS		$ -
2.8	Ground Storage Tank Parapet Wall	283	LF		$ -
				Subtotal	$ -
3 Grit System					
3.1	Grit system relocation including walls, columns, slab, railing, stairs, access platform; disassembly, cleaning, and disconnection of grit removal system at existing location; demolition of concrete, electrical, and piping at existing location; installation of grit removal system at proposed location, including reconnecting to process to provide a fully functional and operational grit removal system	1	LS		$ -
				Subtotal	$ -
4 Equalization Basin Structural					
4.1	Reinforced concrete for Equalization basin including subgrade preparation, coarse aggregate base, formwork, pouring and placing concrete, curing, and testing	2,485	CY		$ -
4.2	Aluminum access stairs with landing and railing	2	EA		$ -
4.3	Aluminum safety railing with kickplate	1,475	LF		$ -
4.4	Aluminum access hatches	8	EA		$ -
4.5	Aluminum Grating	60	SF		$ -
4.6	Catwalk (Structural Steel)	1	LS		$ -
4.7	Protective coating for concrete in jet mixing compartments and pump station wet well	12,100	SF		$ -
				Subtotal	$ -
5 EQ Basin Mechanical					
5.1	Jet mixing assembly including manifold, supports, jet mixing pump, guide rails, and base elbow	2	EA		$ -
5.2	Equalization basin pump station submersible pumps including guide rails and base elbows	5	EA		$ -
5.3	3x3 foot 316 SS fabricated slide gates with wall thimble, stem guides, stanchion, and electric motor actuators	3	EA		$ -
5.4	8 inch rising stem mud valves, with stem guides, stanchion, and handwheel operator	3	EA		$ -
5.5	Davit crane with flush mount brackets, transfer cart, and electric motor cart pulling device	1	LS		$ -
				Subtotal	$ -

This is the Bid From:

_____

6 Fermentation Tank Modifications					
6.1	Drain, clean, inspect, and core walls of fermentation tanks; grout and abandon 12 inch CIP; Blind flange 10 inch DIP; Install 20 inch knife gate valve and 20x18 inch tee for connection to process pipe	1	LS		$ -
6.2	Install protective coating (interior walls and floor) on both fermentation tanks	4,000	SF		$ -
6.3	Bypass pumping while fermentation tanks are out of service	1	LS		$ -
				Subtotal	$ -
7 Piping and Valves					
7.1	Influent piping, including 18 inch DR18 PVC piping, 18 inch ductile iron piping, trenching, backfilling, tracer wire, marker tape, fittings, pipe supports, and fermentation tank bypass plug valves	1	LS		$ -
7.2	Plug, grout, and abandon existing 16 inch influent pipe (approx 140LF)	1	LS		$ -
7.3	RAS piping to Equalization basin, including 12x8 inch tapping sleeve and valve, 8 inch PVC piping, 8 inch ductile iron piping, 3 way plug valve, trenching, backfilling, tracer wire, marker tape, fittings, and pipe supports.	1	LS		$ -
7.4	Process piping from grit system to Equalization basin, including 16 inch ductile iron piping, 16 inch 3 way plug valve, and pipe supports	1	LS		$ -
7.5	Process piping from Equalization basin pumps to fermentation tanks including 6 inch ductile iron piping, fittings and pipe supports; pump manifold assembly including fittings, check valves, isolation valves, plug valves and pipe supports; 12 inch ductile iron pipe including trenching, backfilling, tracer wire, marker tape, fittings, and pipe supports	1	LS		$ -
7.6	Process piping from fermentation tanks to treatment trains, including 18 inch PVC process piping, trenching, backfilling, tracer wire, marker tape, fittings, and pipe supports; 10 inch flow meter assemblies including piping, valves, fittings, and pipe supports; 10 inch process piping to bardenpho trains including trenching, backfilling, tracer wire, marker tape, fittings, and pipe supports; 16 inch buried plug valve	1	LS		$ -
7.7	Service water piping, including 2 inch PVC pipe, hose bibs, fittings, valves, pipe supports, and connection to grit removal system	1	LS		$ -
				Subtotal	$ -
8 Electrical and Instrumentation					
8.1	Electrical system including conduit, wire, transformers, cabinets, panels, grounding, motor control centers, variable frequency drives, disconnect switches, enclosures, lighting and receptacles	1	LS		$ -
8.2	Instrumentation and controls including RTU panel, level indicators, flow meters, local transmitters, enclosures, software, programming, integration, and operator training	1	LS		$ -
				Subtotal	$ -
	TOTAL BID (in words) _____			**TOTAL BID (in dollars)**	$ -

SECTION 01631
PRODUCT SUBSTITUTIONS

PART I – GENERAL

1.01 RELATED DOCUMENTS

A. Drawing and general provisions of Contract, including General and Supplementary Conditions and Division 1 Specification Sections apply to this Section.

1.02 SUMMARY

A. This Section specifies administrative and procedural requirements for handling requests for substitutions made after award of the Contract.

B. The CONTRACTOR'S Project Schedule and the Schedule of Submittals are included under Section 01300 "Submittals".

C. Procedural requirements governing the CONTRACTOR'S selection of products and product options are included under Section 01600 "Materials and Equipment".

1.03 DEFINITIONS

A. Definitions used in the Article are not intended to change or modify the meaning of other terms used in the Contract Documents.

B. Substitutions: Requests for changes in products, materials, equipment, and methods of construction required by Contract Documents proposed by the CONTRACTOR after award of the Contract are considered requests for "Substitutions". The following are not considered substitutions:

1. Revisions to Contract Documents requested by the ENGINEER, and approved by the OWNER.

2. Specified options of products and construction methods included in Contract Documents.

3. The CONTRACTOR'S determination of and compliance with governing regulations and orders issued by governing authorities do not constitute "substitutions" and do not constitute a basis for Change Orders, except as provided for in Contract Documents.

1.04 QUALITY ASSURANCE

A. Source Limitations: To the greatest extent possible for each unit of work, provide products, materials or equipment of a singular generic kind from a single source.

1.05 SUBMITTALS

A. Substitution Request Submittal: Requests for substitution will be considered if received within 15 days after commencement of the Work or otherwise as approved by the OWNER. Requests received more than 15 days after Notice of Commencement of the Work may be considered or rejected at the discretion of the ENGINEER or the OWNER.

1. Submit three (3) copies of each request for substitution for consideration. Submit

requests in the form attached at the end of this Section.

2. Identify the product, or the fabrication or installation method to be replaced in each request. Include related Specification Section and Drawing numbers. Provide complete documentation showing compliance with the requirements for substitutions, and the following information, as appropriate:

   a. Product Data, including Drawings and descriptions of products, fabrication and installation procedures.

   b. Samples, where applicable or requested.

   c. A detailed comparison of significant qualities of the proposed substitution with those of the Work specified. Significant qualities may include elements such a size, weight, durability, performance and visual effect.

   d. Coordination information, including a list of changes or modifications needed to other parts of the Work and to construction performed by the OWNER and separate contractors that will become necessary to accommodate the proposed substitution.

   e. A statement indicating the substitution's effect on the CONTRACTOR'S construction to the schedule without approval of the substitution. Indicate the effect of the proposed substitution on overall Contract Time.

   f. Cost information, including a proposal of the net change, in any, in the Contract Sum.

   g. Certification by the CONTRACTOR and Subcontractor that the substitution proposed is equal-to or better in every significant respect to that required by the Contract Documents, and that it will perform adequately in the application indicated. Include the CONTRACTOR'S waiver of rights to additional payment or time that may subsequently become necessary because of the failure of the substitution to perform adequately.

3. ENGINEER'S Action: Within one week of receipt of the request for substitution, the ENGINEER and/or the OWNER will request additional information or documentation necessary for evaluation of the request. Within two (2) weeks of receipt of the request, or one (1) week of receipt of the additional information or documentation, whichever is later, the ENGINEER will notify the CONTRACTOR of acceptance or rejection by the ENGINEER and/or the OWNER of the proposed substitution. If a decision of use of a proposed substitute cannot be made or obtained within the time allocated, use the product specified by name. Acceptance will be in the form of a Change Order.

PART 2 – PRODUCTS

2.01 SUBSTITUTIONS

A. Substitutions for a specified system, product or material may be requested of the ENGINEER in writing only after award of the Contract. Approval of substitutions shall be in writing; verbal approval shall not be acceptable.

B. The CONTRACTOR shall submit all substitution requests with a copy of the attached "Substitution Request Form." The CONTRACTOR'S substitution request will be received and considered by the ENGINEER and the OWNER when one or more of the following conditions

are satisfied, as determined by the ENGINEER and the OWNER; otherwise requests will be returned without action except to record noncompliance with these requirements.

1. Extensive revisions to Contract Documents are not required.

2. Proposed changes are in keeping with the general intent of Contract Documents.

3. The request is timely, fully documented and properly submitted.

4. The request is directly related to an "or equal" clause of similar language in the Contract Documents.

5. The specified product or method of construction cannot be provided within the Contract Time. The request will not be considered if the product or method cannot be provided as a result of failure to pursue the Work promptly or coordinate activities properly.

6. The specified product or method of construction cannot receive necessary approval by a governing authority, and the requested substitution can be approved.

7. A substantial advantage is offered the OWNER, in terms of cost, time, energy conservation or other considerations or merit, after deducting offsetting responsibilities the OWNER may be required to bear. Additional responsibilities for the OWNER may include additional compensation to the ENGINEER for redesign and evaluation services, increased cost of other construction by the OWNER or separate contractors, and similar considerations. These shall be identified within the request for substitution.

8. The specified product or method of construction cannot be provided in a manner that is compatible with other materials, and where the CONTRACTOR and/or Subcontractor certifies that the substitution will overcome the incompatibility.

9. The specified product or method of construction cannot be coordinated with other materials, and where the CONTRACTOR and/or Subcontractor certifies that the proposed substitution can be coordinated.

10. The specified product or method of construction cannot provide a warranty required by the Contract Documents and where the CONTRACTOR and/or Subcontractor certifies that the proposed substitution can provide the required warranty.

PART 3 – EXECUTION

Substitution Request Form

SECTION #	PARA #	SPECIFIED PRODUCT	PROPOSED SUBSTITUTION
_____	_____	_____	_____

A. Does specified product exceed, in any respect, proposed substitution? ___ Y ___ N

B. Does substitution affect dimensions shown on drawings? ___ Y ___ N

C. Does substitution affect other trades more than original product? ___ Y ___ N

D. Does warranty differ from that specified? ___ Y ___ N

E. Does substitution affect cost to Owner? ___ Y ___ N

F. Does substitution result in any license fee or royalty? ___ Y ___ N

If you indicated a Yes to any of the items above, attach thorough explanation on your Company letterhead, as follows:

1. Explain any differences between proposed substitution and specified product.
2. Summarize experience with product and manufacturer in Project area.
3. Attach complete technical data and literature.

The undersigned states that the function, appearance, and quality of the proposed substitution is equivalent or superior to the specified item, and that all information above and attached is true and correct.

For use by ENGINEER

Submitted by: _____

Position: _____

Company: _____

Address: _____

_____

_____

Date: _____

Telephone: _____

Signature: _____

END OF SECTION

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(Continued)

16	American Iron and Steel Provision	FDEP-12
17	Prohibited Local Government Construction Preferences	FDEP-12

APPENDIX	TITLE	
A	Certification of Compliance with the Florida Department of Environmental Protection Supplementary Conditions	FDEP-13
B	Goals and Timetables for Minorities and Females	FDEP-14
C	Federal Labor Standards Provision	FDEP-15
D	American Iron and Steel Provision	FDEP-23

DIVISION I - GENERAL REQUIREMENTS

	Professional Certifications Page	
01010	Summary of Work	01010-1 thru 01010-4
01012	Construction Sequence	01012-1 thru 01012-4
01025	Measurement and Payment	01025-1 thru 01025-2
01041	Project Coordination	01041-1 thru 01041-2
01045	Cutting and Patching	01045-1 thru 01045-2
01060	Regulatory Requirements and Permits	01060-1 thru 01060-1
01070	Abbreviations	01070-1 thru 01070-5
01091	Reference Standards	01091-1 thru 01091-2
01120	Demolition and Alteration Project Procedures	01120-1 thru 01120-3
01200	Project Meetings	01200-1 thru 01200-3
01300	Submittals	01300-1 thru 01300-3
01311	Construction Schedule and Reports	01311-1 thru 01311-5
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01380	Construction Photographs	01380-1 thru 01380-3
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01500	Construction Facilities and Temporary Controls	01500-1 thru 01500-4
01505	Mobilization and Demobilization	01505-1 thru 01505-2
01525	Construction Aids	01525-1 thru 01525-2
01540	Hurricane Preparedness	01540-1 thru 01540-1
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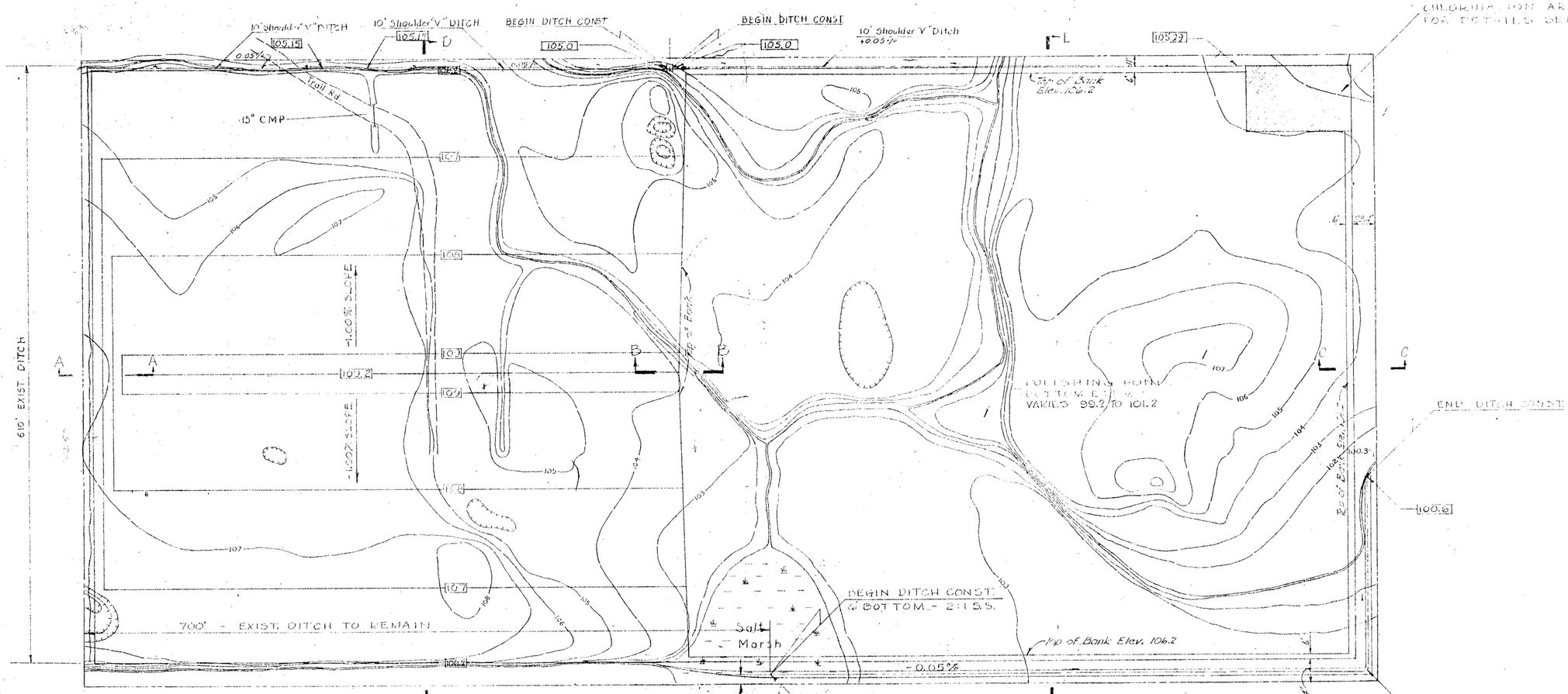
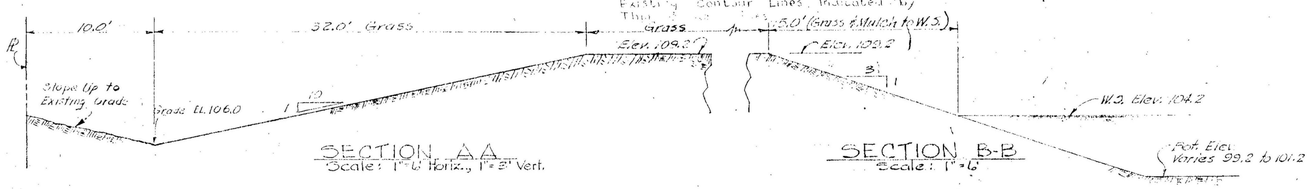
01600	Materials and Equipment	01600-1 thru 01600-2
01631	Product Substitutions	01631-1 thru 01631-4
01650	Starting and Placing Equipment into Operation	01650-1 thru 01650-8
01700	Project Closeout	01700-1 thru 01700-2
01710	Cleaning	01710-1 thru 01710-2
01730	Operations and Maintenance Manual	01730-1 thru 01730-7
01740	Warranties and Bonds	01740-1 thru 01740-2
01750	Spare Parts, Maintenance Items and Tools	01750-1 thru 01750-2
01760	Packaging, Delivery and Acceptance of Spare Parts, Special Tools, Maintenance Items and Equipment	01760-1 thru 01760-3
01800	Training	01800-1 thru 01800-6



GRADING PLAN

Scale: 1"=60'

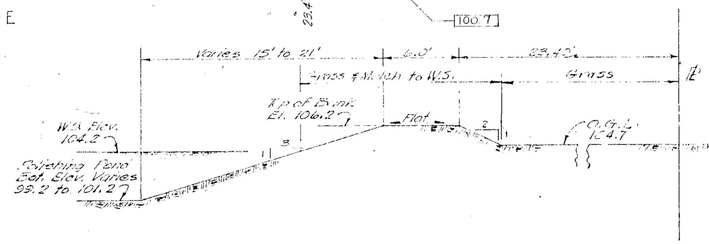


SECTION A-A

Scale: 1"=10' Horiz., 1"=2' Vert.

SECTION B-B

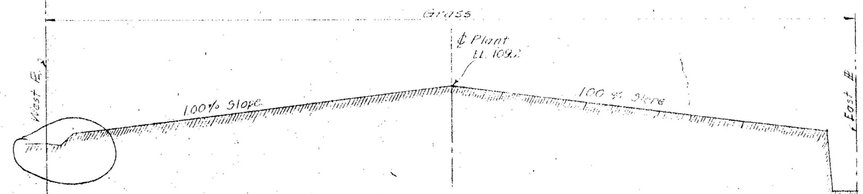
Scale: 1"=10'



SECTION C-C

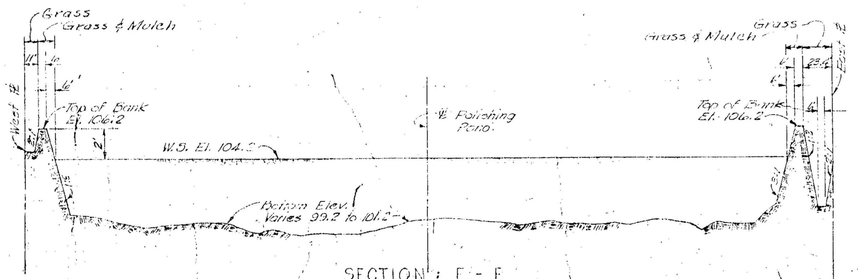
Scale: 1"=10'

NOTE:
All elevations are referred to City of Palmetto Datum, which is 100 feet above the Mean Sea Level Datum of the U.S.C. & G.S.



SECTION D-D

Scale: Hor. 1"=60', Vert. 1"=5'



SECTION E-E

Scale: Hor. 1"=60', Vert. 1"=5'

1	1-4-61	located Ditches on Plan & Revised Section D-D	
REVISION	DATE	DESCRIPTION	

PALMETTO SEWERAGE SYSTEM

GRADING PLAN & TREATMENT PLANT

PULLARA & WATSON

ARCHITECTS ENGINEERS

TAMPA, FLA.

DESIGNED BY: R.L.P.	DATE: 10-5-60	SHEET 5
DRAWN BY: R.D.P. & P.T.	COMMISSION NO. 5631	
CHECKED BY:	APPROVED:	OF 24 SHEETS
RECOMMENDED:		

LEGEND

(heavy line)	SEWER LINES
(dashed line)	GAS LINES
(line)	WATER LINES
(hatched box)	STRUCTURES
(box)	PAVED AREAS

NOTES:
1. Maintain minimum cover of 2'-0" over all Water Pipes.
2. For Valve & Fitting Schedule see Sheet Nº 1?
3. For Typical Road, Ditch & Sidewalk sections see Sheet Nº 4
4. For Gas Pipe Fittings & Details see Sheet Nº 14

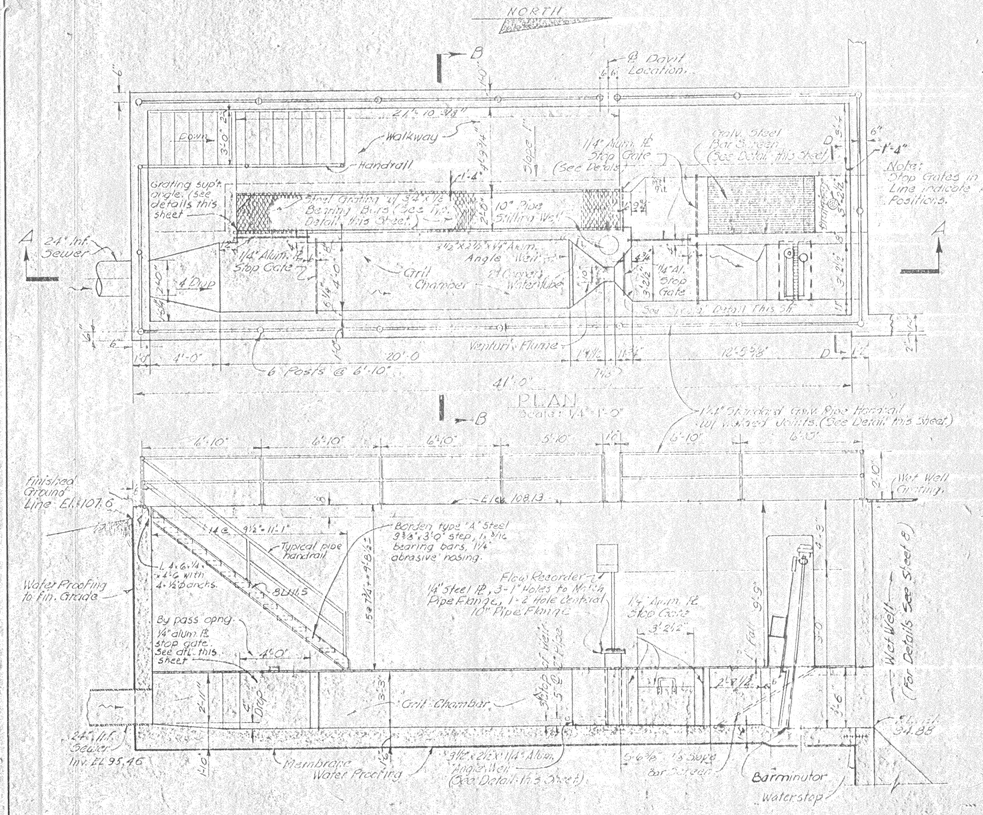
REVISION	DATE	DESCRIPTION
2	12-28-62	Wall Drain, Shoulder "V" Ditch & Rev. Parking Lot
1	9-12-62	L.P. Gas Lines & Storage Tanks Added

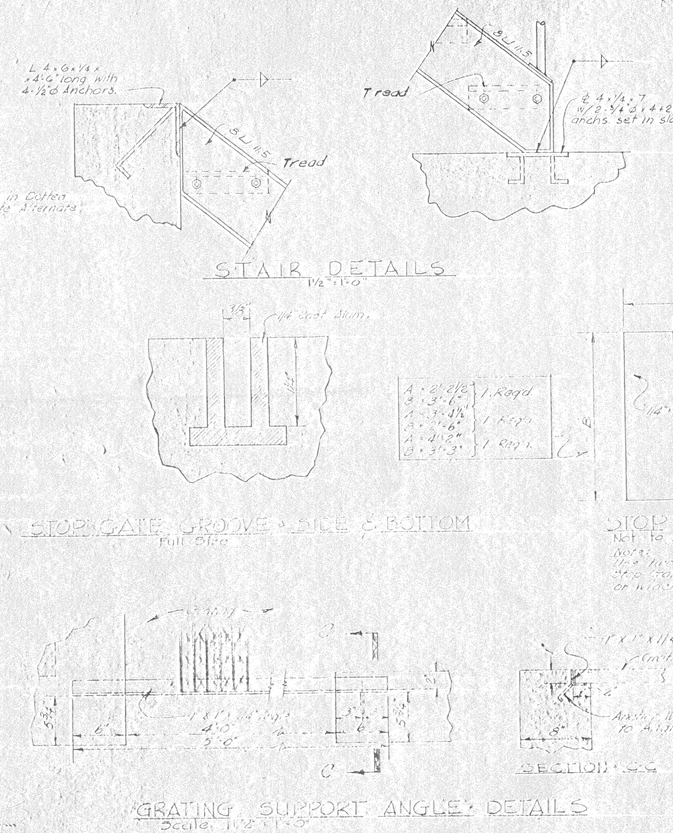
PALMETTO SEWERAGE SYSTEM

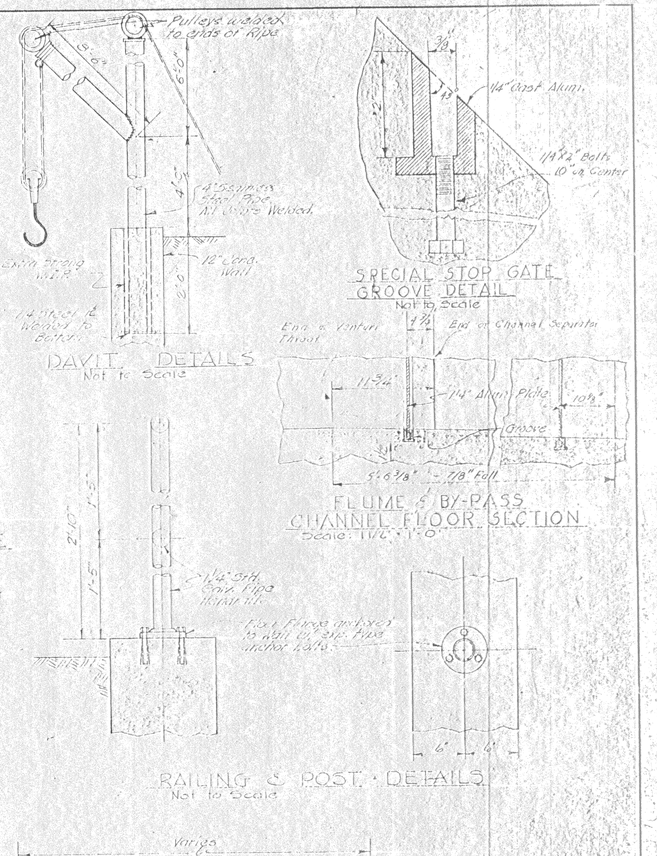
OUTSIDE PIPING & PAVING DETAILS TREATMENT PLANT

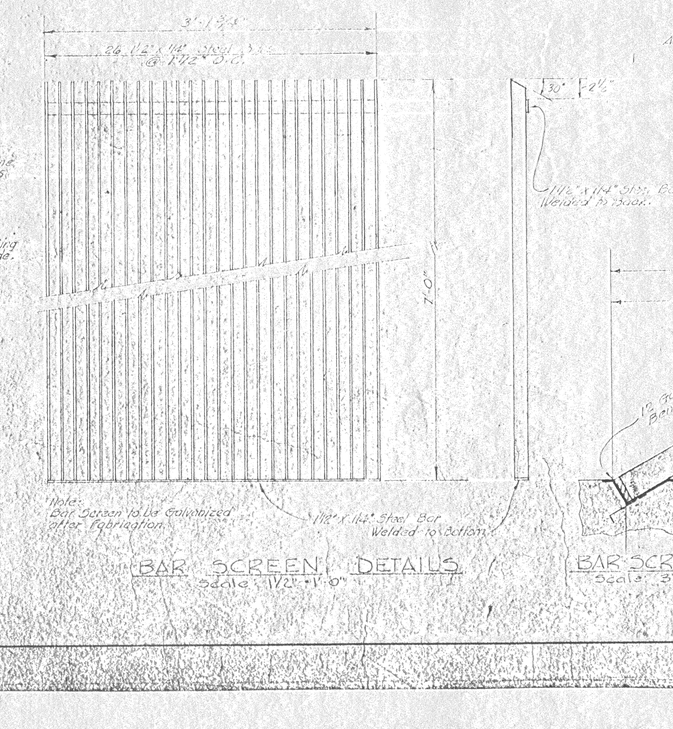
PULLARA, & WATSON
ARCHITECTS ENGINEERS
TAMPA, FLA.

DESIGNED BY:	DATE:	SHEET 6
DRAWN BY:	COMMISSION NO. 5631	
CHECKED BY:	APPROVED:	
RECOMMENDED:		









REVISION	DATE	DESCRIPTION	BY
1	9-12-60	Revised Stilling Well & Retainer	W.B.W.

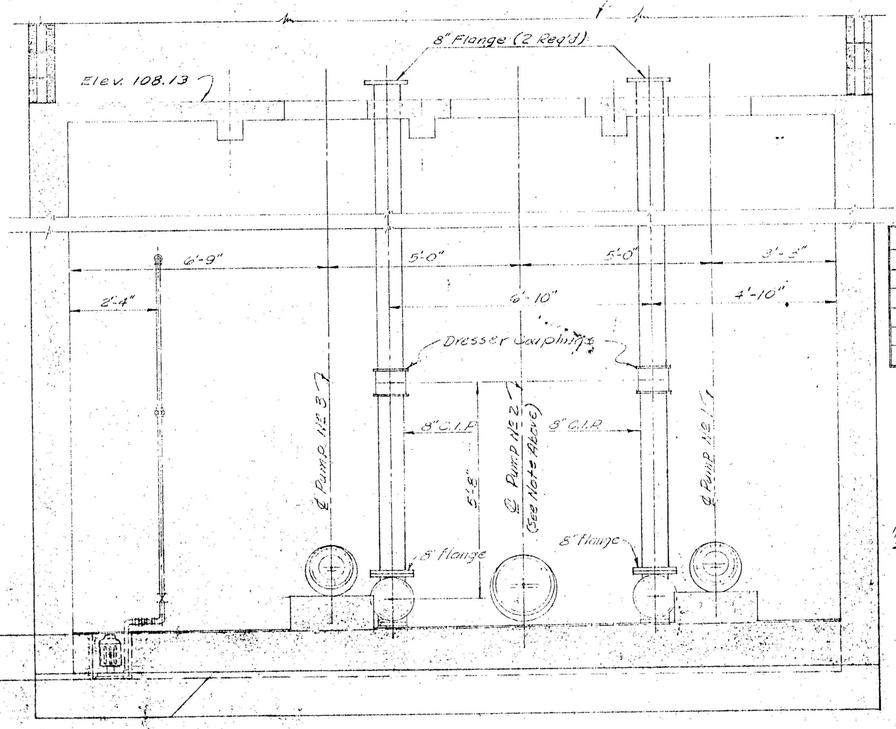
PALMETTO SEWERAGE SYSTEM

GRIT CHAMBER

PULLARA, & WATSON
ARCHITECTS ENGINEERS
TAMPA, FLA.

DESIGNED BY: R.P.	DATE: AUG. 19 1960	SHEET: 7
DRAWN BY: T.T.G.	COMMISSION NO. 5831	OF 21 SHEETS
CHECKED BY: A.P.	APPROVED: W.B.W.	
RECOMMENDED: S. Pate		

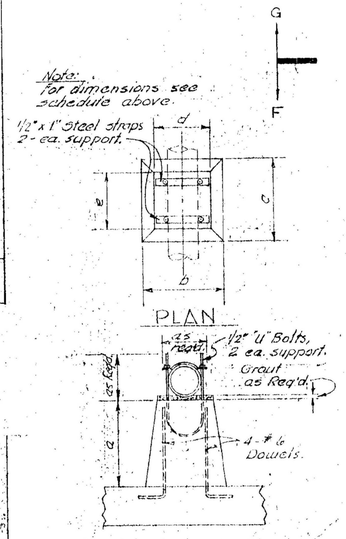
For Motor Floor Layout & Details of Superstructure See Sheets 8 & 18



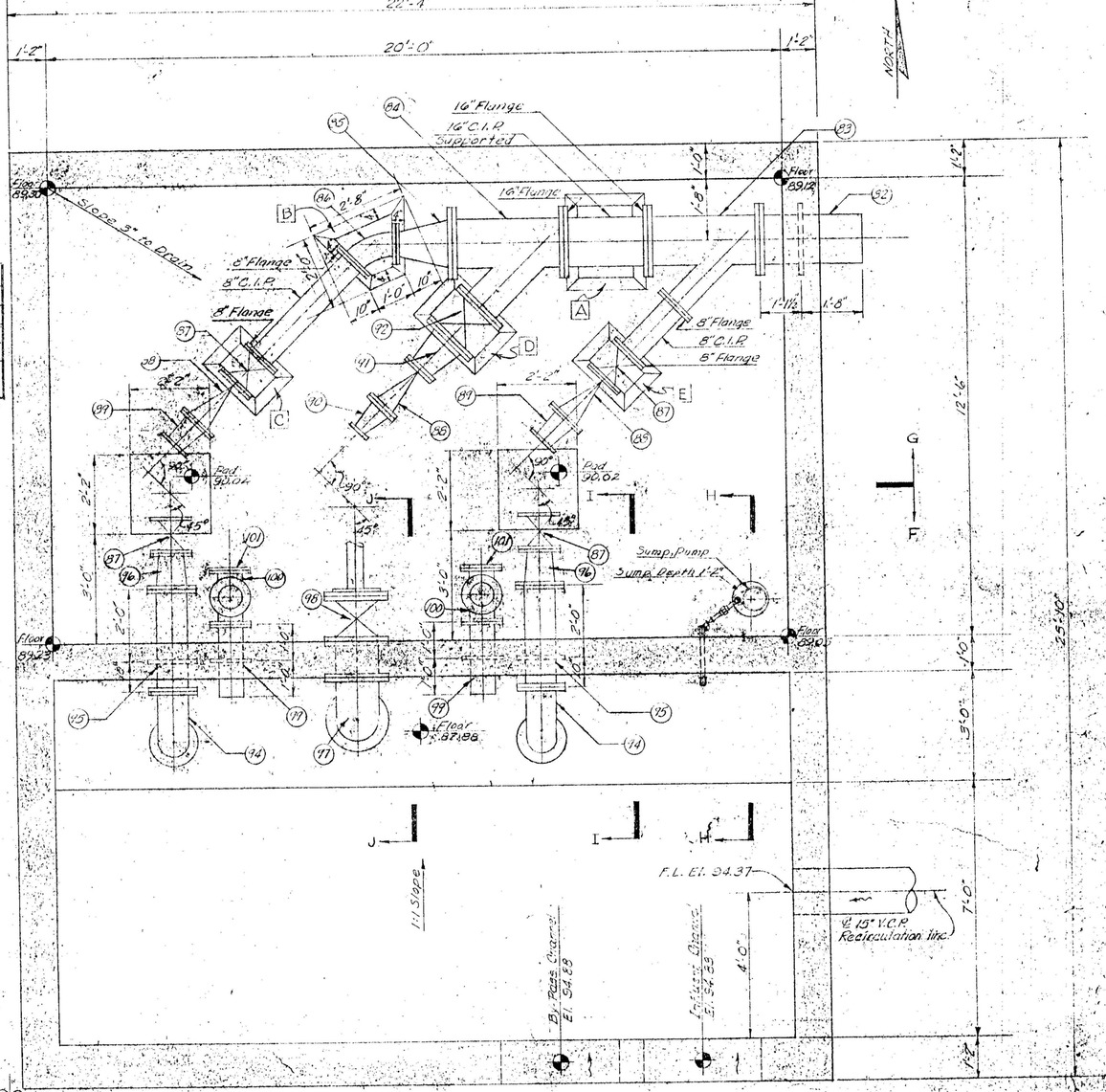
SECTION F-F
Scale: 1/2" = 1'-0"

NOTE: Pump #2 to be supported on Structural Steel Members which are attached to Floor with anchor bolts.

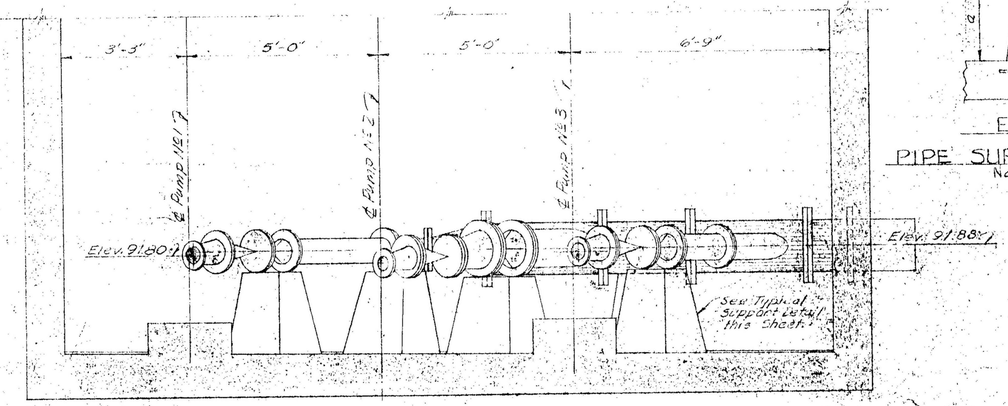
PIPE SUPPORT SCHEDULE					
Nº	a	b	c	d	e
A	2'-0"	2'-8"	2'-2"	2'-0"	1'-6"
B	2'-0½"	See Sectional Plan →			
C	2'-0½"	2'-0"	1'-6"	1'-4"	10"
D	1'-11"	2'-4"	1'-8"	1'-8"	1'-0"
E	2'-1"	2'-0"	1'-6"	1'-4"	10"



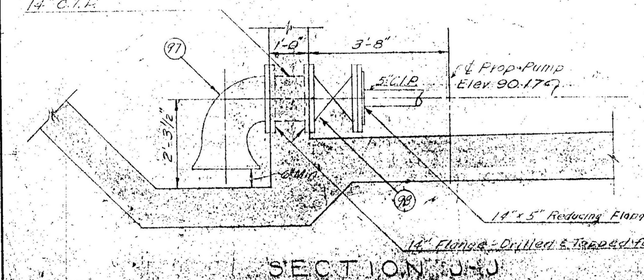
PIPE SUPPORT DETAILS
Not to Scale



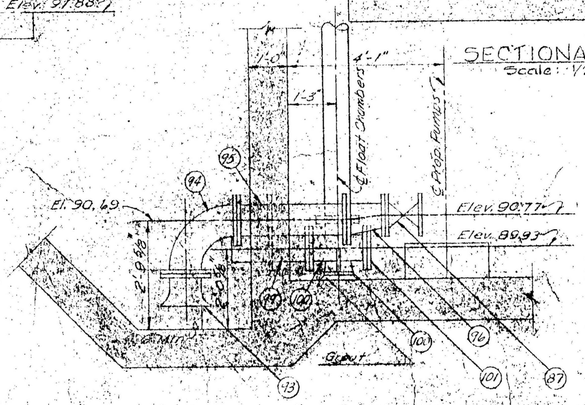
SECTIONAL PLAN
Scale: 1/2" = 1'-0"

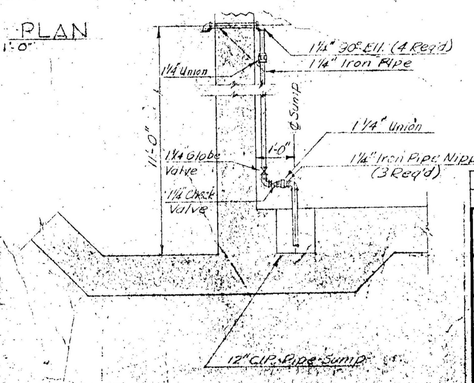


SECTION G-G
Scale: 1/2" = 1'-0"



SECTION J-J
Scale: 1/2" = 1'-0"





REVISION	DATE	DESCRIPTION	
1	9-12-60	Added Dresser Couplings & Pump Mfg. Note	W.B.W.

PALMETTO SEWERAGE SYSTEM

LIFT STATION Nº 1 - PIPING LAYOUT

PULLARA & WATSON
ARCHITECTS ENGINEERS
TAMPA, FLA.

DESIGNED BY:	DATE: AUG. 19, 1960	SHEET C
DRAWN BY: W.B.W.	COMMISSION NO. 5631	
CHECKED BY:	APPROVED:	OF 61 SHEETS
RECOMMENDED:		

West Well Floor 1'-2" Low Point Dry Well Floor

NORTH

NOTE: These two valves operated by solenoid controlled hydraulic actuators. See Sheet No. 11 for Schematic Piping Diagram.

For Detail of Stairway See Sheet No. 11

Rotation

Catwalk

Solenoid

Solenoid

2" 1/4" Alum. ft. Slide gate See detail Sheet No. 11

Three sets symetrical about ℄ Effluent Sewer Pipe & Trough.

16"

Detail 12 (See Sheet No. 11)

Scum Trough

Scum Baffle

Weir Plate

12"

Low point EL. 112.71

High point EL. 118.21

180°

22:6 R

11:3"

7'-0" R.

9" SLAB TYPICAL REINFORCEMENT

45'0" Inside Dia. of Wall

Direction of Rotation

#4 @ 12" ℄ RADIALS @ 12° ON 22 RADIUS

PLAN
Scale 1/4" = 1'-0"

Solenoid

Neoprene Water Proofing

Elevation of Sludge Hopper EL. 102.37

Top of Tank EL. 122.25

Top of Walkway EL. 120.96

Top of Wall EL. 122.25

SECTIONAL ELEVATION
Scale 1/4" = 1'-0"

Neoprene Water Proofing

SEE PLAN FOR SIZE & RE'MT

#4 @ 12" CENTER OF WALL

TYPICAL REINFORCEMENT

Valve Actuator

SECTION A-A
Scale 1/4" = 1'-0"

Notes
1. For location of Equip. Anchor Bolts see Equipment Plans, Spec. Drawings.
2. For typical handrail detail see Sheet No. 15.

REVISION	DATE	DESCRIPTION
1	9-12-60	Added Valve Actuators & Solenoids

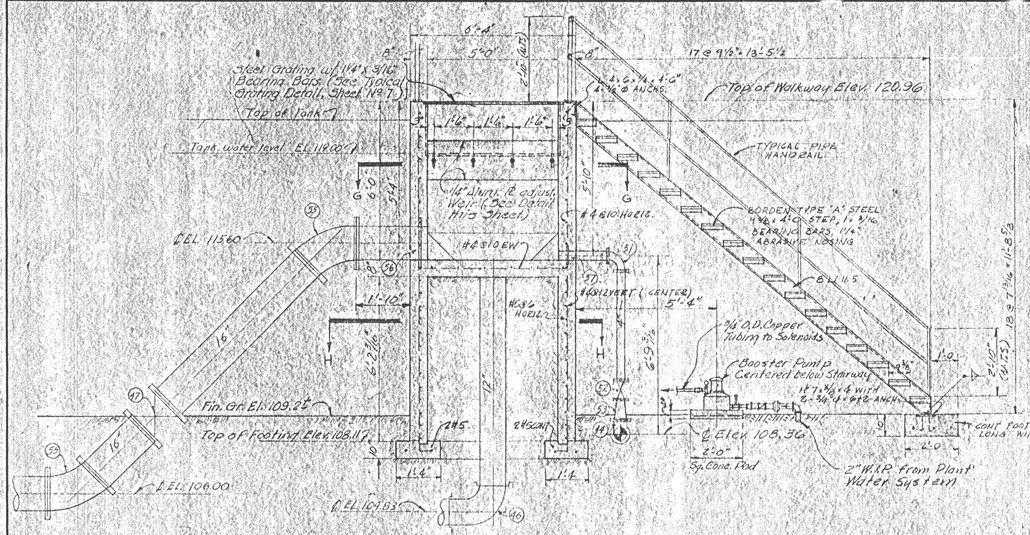
PALMETTO SEWERAGE SYSTEM

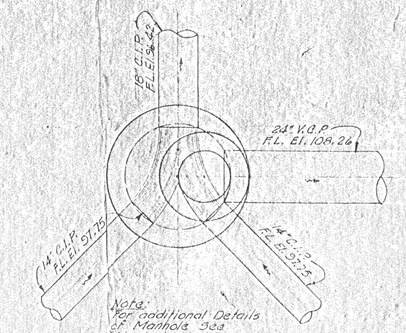
PRIMARY CLARIFIER & SH. 1

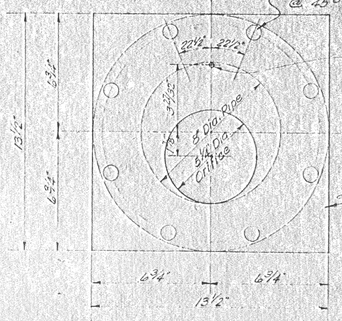
PULLARA & WATSON
ARCHITECTS ENGINEERS
TAMPA, FLA.

DESIGNED BY: [illegible]	DATE: AUG. 19, 1960
DRAWN BY: P.T.	COMMISSION NO. 5631
CHECKED BY: [illegible]	APPROVED: [illegible]
RECOMMENDED: [illegible]	

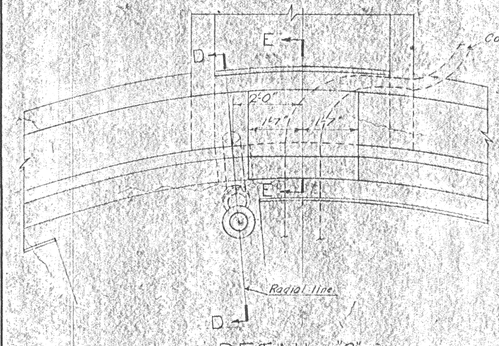
SHEET 10 OF [illegible] SHEETS

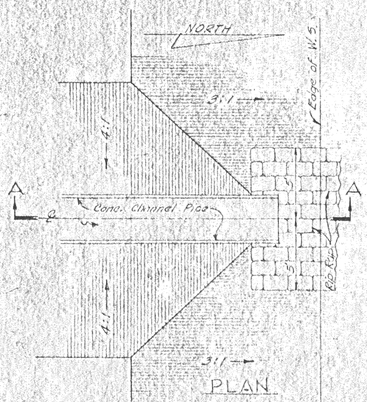


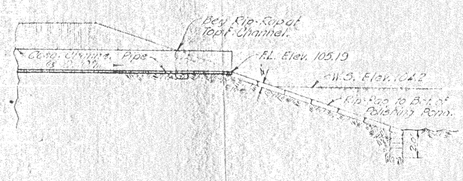


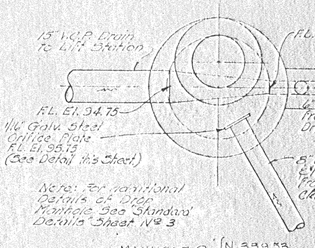


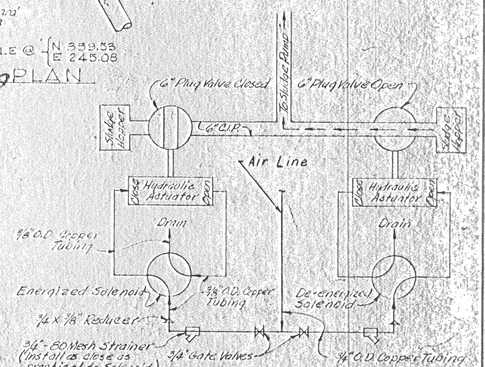
ORIFICE PLATE DETAIL 3
Scale 3" = 1'-0"



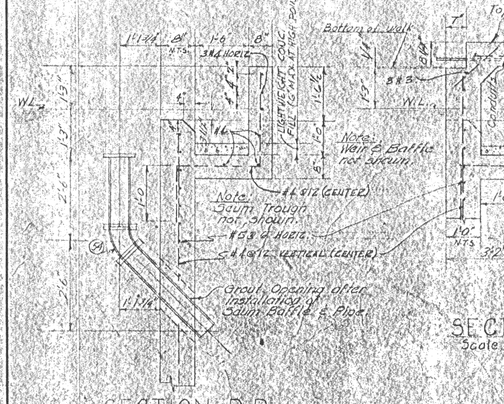


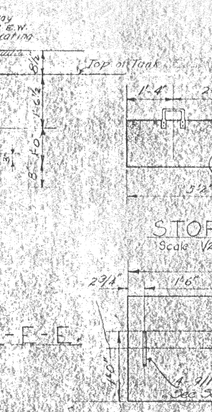


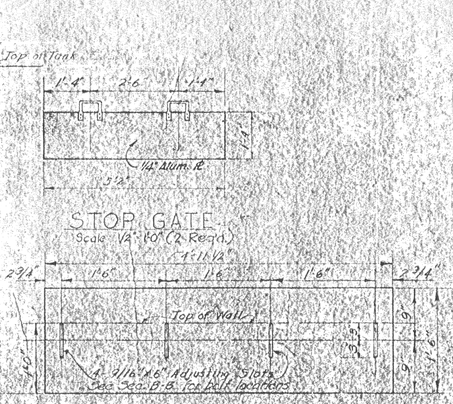


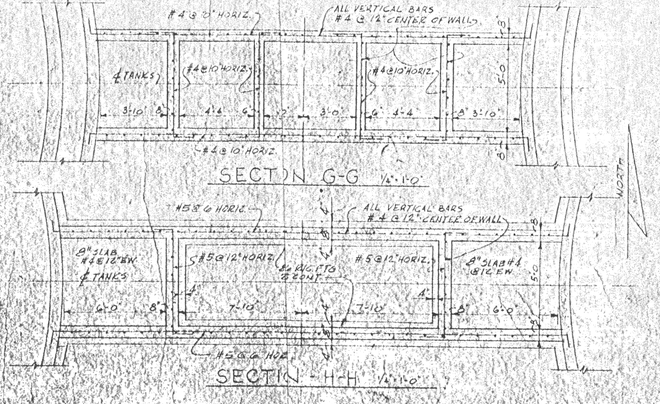


SCHEMATIC PIPING DIAGRAM SOLENOID CONTROLLED VALVES









DETAILS - CONC. CHANNEL PIPE @ POLISHING POND
Scales 1" = 5'-0"

REVISION	DATE	DESCRIPTION	BY
1	9-12-60	Added Schematic Diagram & Booster Pump	W.B.W.

PALMETTO SEWERAGE SYSTEM

PRIMARY CLARIFIER & SH. 2 & SPECIAL DETAILS

PULLARA & WATSON
ARCHITECTS ENGINEERS
TAMPA, FLA.

DESIGNED BY: AP	DATE: AUG. 19, 1960	SHEET 1
DRAWN BY: RT & T.G.	COMMISSION NO. 5631	OF 61 SHEETS
CHECKED BY: GA & AP	APPROVED: WBW	
RECOMMENDED: [illegible]		

SECTION A-A
Scale: 1/4" = 1'-0"

SECTION B-B
Scale: 1/4" = 1'-0"

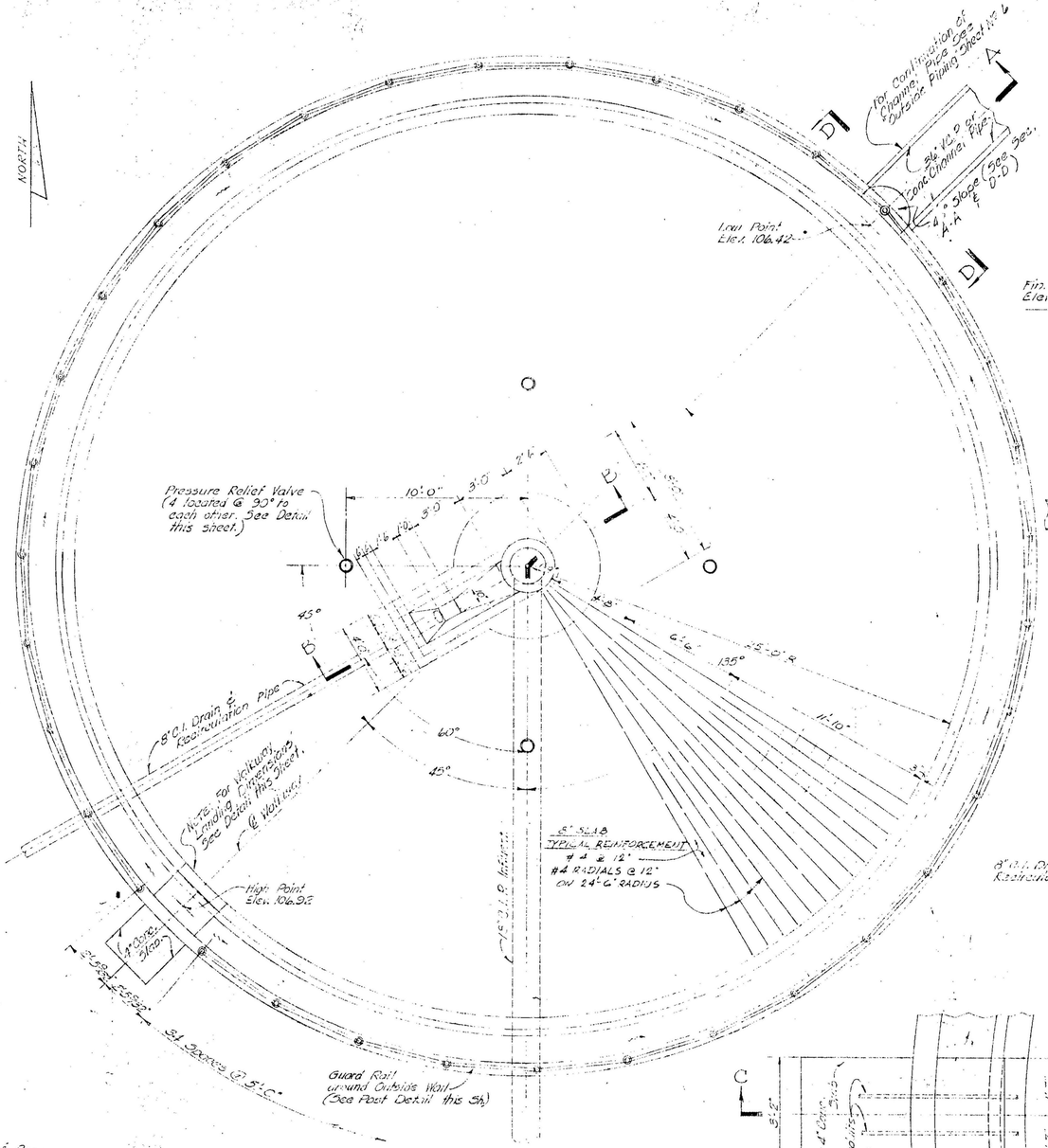
SECTION C-C
Scale: 1/4" = 1'-0"

PLAN - TRICKLING FILTER NO 1
Scale: 1/4" = 1'-0"

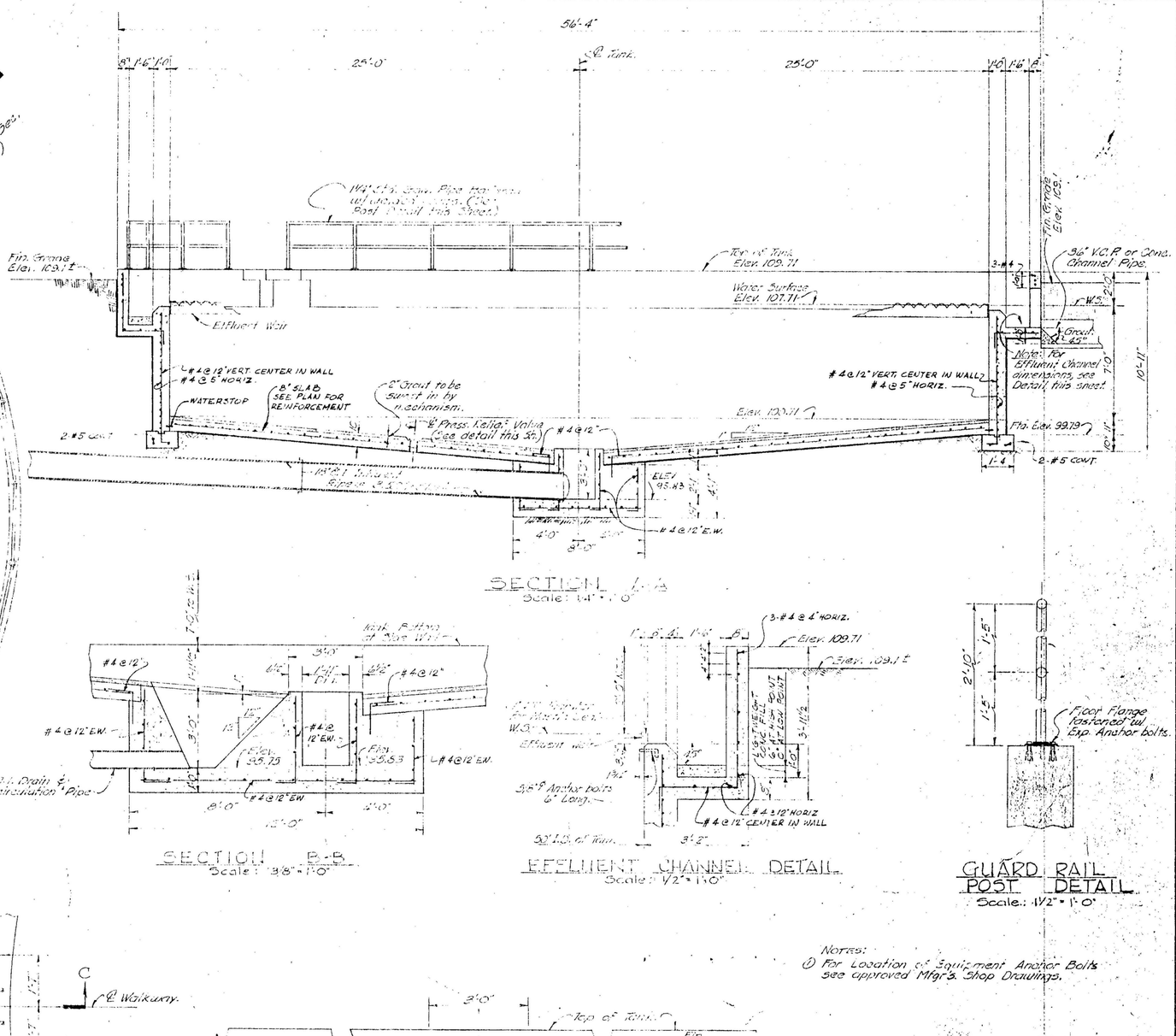
Note:
Trickling Filters No 1 and No 2 are symetrical about this ℄

For continuation of this line see Sheet No 6 & 10

PALMETTO SEWERAGE SYSTEM		
TRICKLING FILTERS		
PULLARA, & WATSON ARCHITECTS ENGINEERS TAMPA, FLA.		
DESIGNED BY: [illegible]	DATE: AUG 19, 1960	SHEET 12 OF 61 SHEETS
DRAWN BY: T.T.G.	COMMISSION NO. 5831	
CHECKED BY: [illegible]	APPROVED: [illegible]	
RECOMMENDED: [illegible]		



PLAN
Scale: 1/4" = 1'-0"

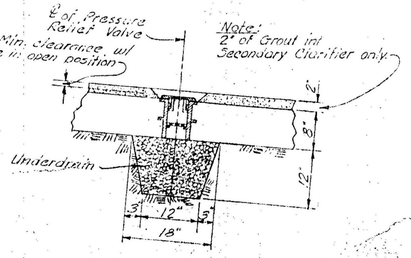


SECTION A-A
Scale: 1/4" = 1'-0"

SECTION B-B
Scale: 3/8" = 1'-0"

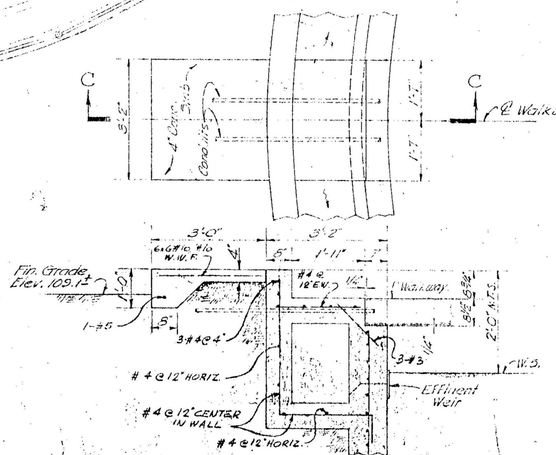
EFFLUENT CHANNEL DETAIL
Scale: 1 1/2" = 1'-0"

GUARD RAIL POST DETAIL
Scale: 1 1/2" = 1'-0"

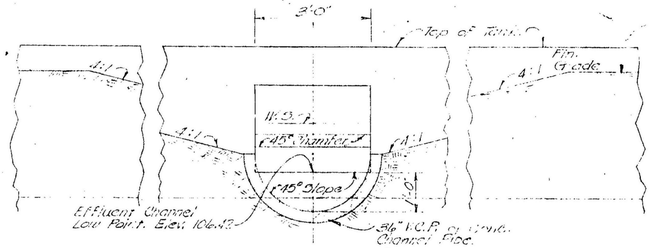


PRESSURE RELIEF VALVE DETAIL (TYPICAL)
Scale: 3/4" = 1'-0"

Note:
4 Req'd. Secondary Clarifier
4 Req'd. each Digester
Total Req'd. ———— 12



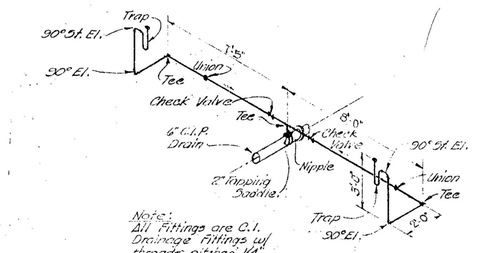
SECTION C-C
WALKWAY LANDING DETAILS
Scale: 1/2" = 1'-0"



SECTION D-D
Scale: 1/2" = 1'-0"

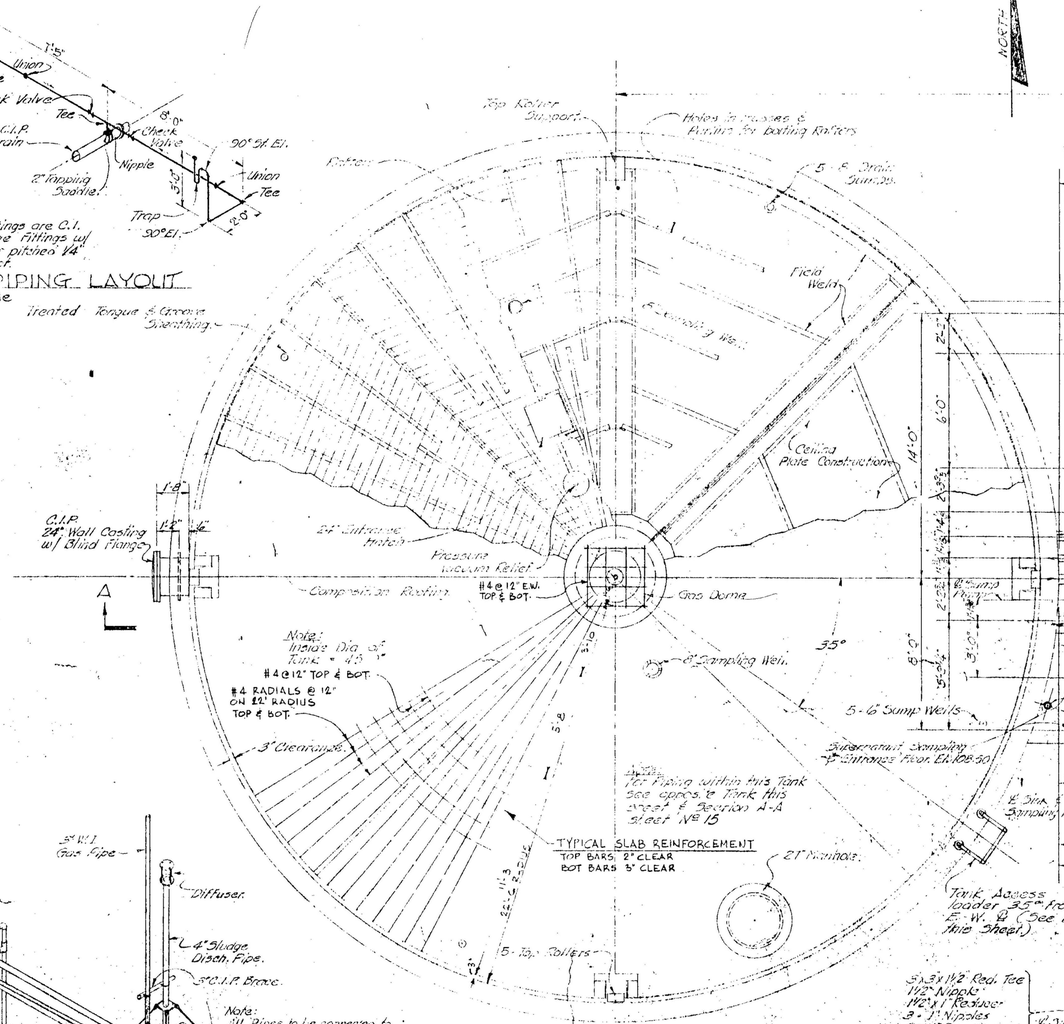
Notes:
① For Location of Equipment Anchor Bolts see approved Mfgr's. Shop Drawings.

PALMETTO SEWERAGE SYSTEM		
SECONDARY CLARIFIER		
PULLARA & WATSON ARCHITECTS ENGINEERS TAMPA, FLA.		
DESIGNED BY: [illegible]	DATE: AUG. 19, 1960	SHEET 13
DRAWN BY: T.T.G.	COMMISSION NO. 5631	
CHECKED BY: [illegible]	APPROVED: [illegible]	OF 61 SHEETS
RECOMMENDED: [illegible]		



Note:
All Fittings are C.I. Drainage Fittings w/ threads pitched 1/4" Per Foot.

SINK DRAIN PIPING LAYOUT
No Scale



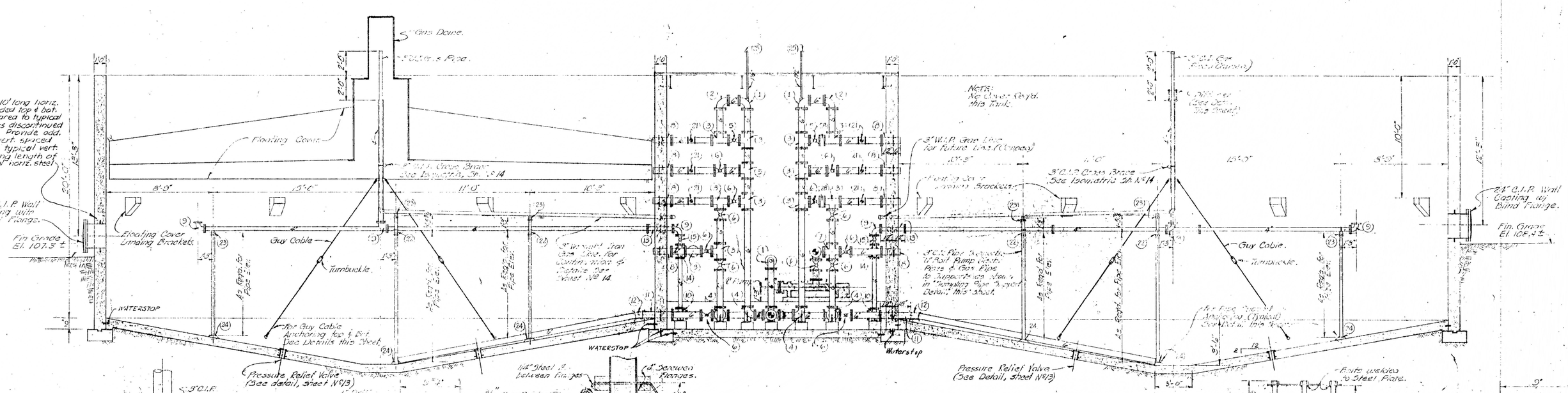
REVISION	DATE	DESCRIPTION	BY
2	9-12-60	Added Meter Support Platform	T.T.G.
1	9-12-60	Relocated 6" Plug Valves.	T.T.G.

PALMETTO SEWERAGE SYSTEM

SLUDGE DIGESTERS & CONTROL BUILDING - SH. 1

PULLARA & WATSON
ARCHITECTS ENGINEERS
TAMPA, FLA.

DESIGNED BY: W.B.W.	DATE: AUG. 19, 1960	SHEET 14
DRAWN BY: T.T.G.	COMMISSION NO. 5631	
CHECKED BY: [illegible]	APPROVED: [illegible]	OF 61 SHEETS
RECOMMENDED: [illegible]		



REVISION	DATE	DESCRIPTION	BY
1	9-12-60	Relocated 6" Plug Valves	T.T.G.

PALMETTO SEWERAGE SYSTEM

SLUDGE DIGESTERS & CONTROL BUILDING - SH. 2

PULLARA & WATSON
ARCHITECTS ENGINEERS
TAMPA, FLA.

DESIGNED BY: W.B.W.	DATE: AUG. 19, 1960	SHEET	15
DRAWN BY: T.T.G.	COMMISSION NO. 5631		
CHECKED BY:	APPROVED:	OF 61 SHEETS	
RECOMMENDED:			