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SUB-CONTRACTORS,
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ADDENDA.

FOR ASSISTANCE OR
TO REGISTER CONTACT:

MAILTO:BERNICE.WHEELER@TAMPA.GOV.NET
BERNICE WHEELER, (813)274-8456, FAX 274-8080
CONTRACT ADMINISTRATION DEPARTMENT
306 E. JACKSON ST. #280A4N
TAMPA, FL 33602

LOCATION MAP

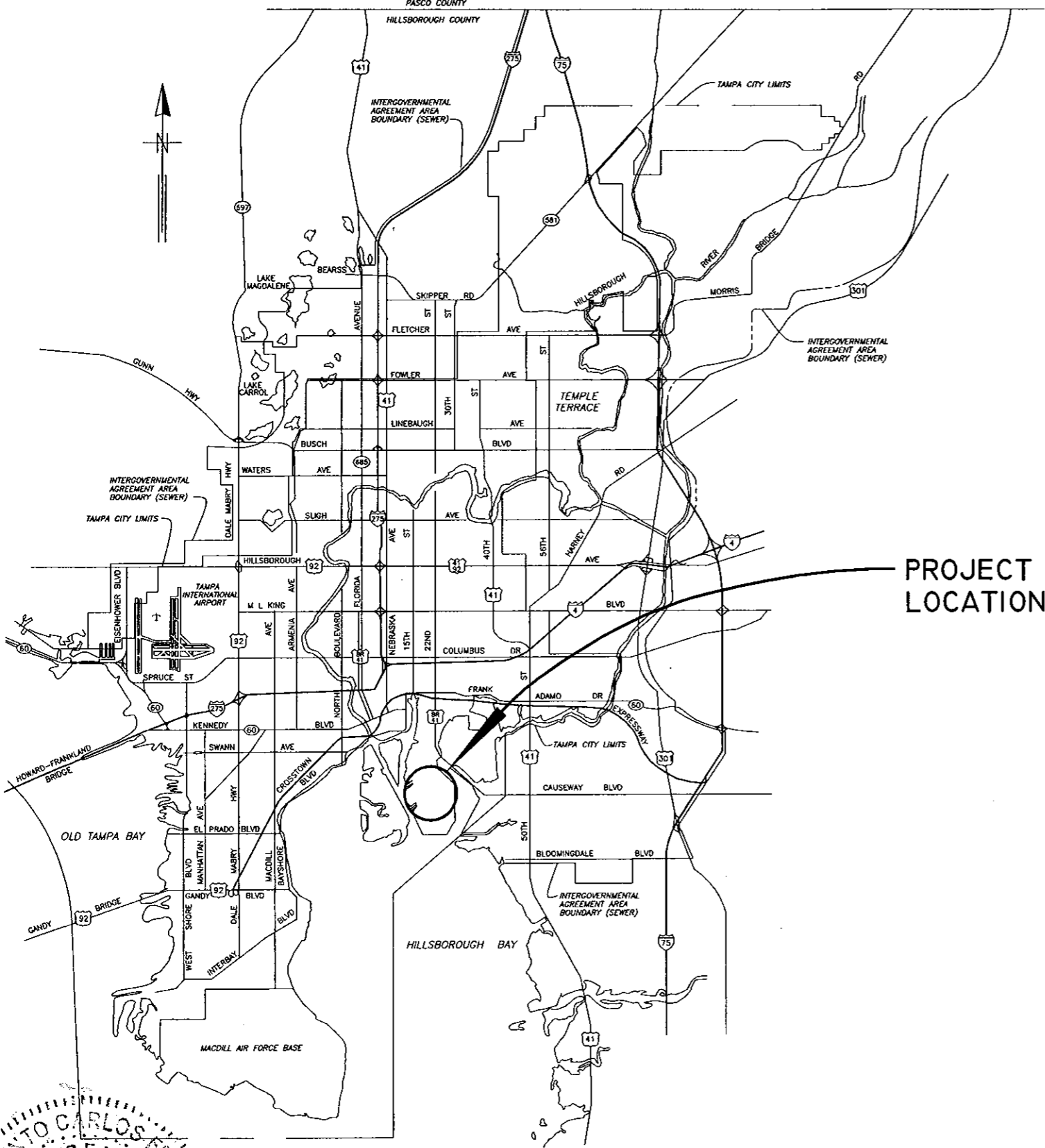
CITY of TAMPA



WASTEWATER DEPARTMENT

PLANS FOR
HOWARD F. CURREN AWTP
SLUDGE DRYING BED
REHABILITATION, PHASE I

CONTRACT 8-C-00018



PROJECT
LOCATION

User: ss8k Drawing Name: K:\micah\autocad\DESIGN WORK\LASHONDA\HFC Sludge Drying Beds\DWGS\Sludge Drying Beds.dwg
Layout - Cover Sheet, Mar 31, 2008 - 8:59am

JACINTO CARLOS FERRAS
LICENCIADO EN INGENIERIA
No. 49454
STATE OF FLORIDA
DESIGN DIVISION
WASTEWATER DEPARTMENT

No.	DATE	REVISIONS
3	3/31/08	
2		
1		

DES: LG
DRN: MRL
CKD: JF
DATE: 3/31/08

CITY of TAMPA
WASTEWATER DEPARTMENT

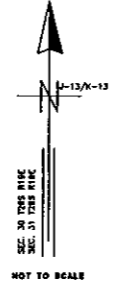
HFC AWTP SLUDGE DRYING BED
REHABILITATION PHASE I

W.O. 4013
SHEET
1
OF 10

LOCATION MAP

CITY OF TAMPA
HOWARD F. CURREN
ADVANCED WASTEWATER
TREATMENT PLANT

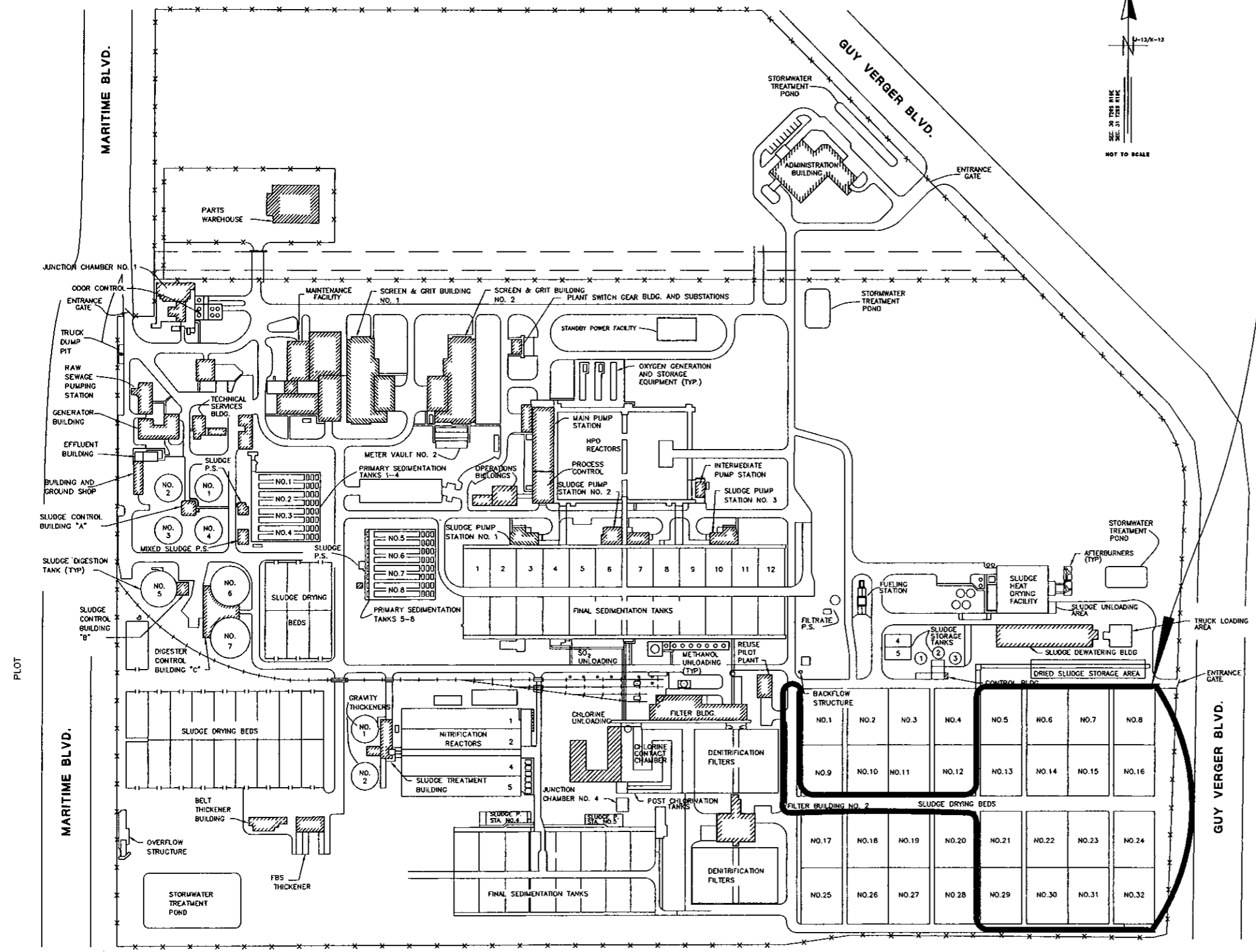
2700 MARITIME BLVD.
TAMPA, FL 33605
(813) 247-3451
FAX: (813) 248-5269



PROJECT
LOCATION

INDEX

- SHEET 1 COVER SHEET
- SHEET 2 OVERALL PLANT LOCATION MAP, INDEX
- SHEET 3 GENERAL NOTES
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- SHEET 5 TYPICAL SLUDGE BED PLAN AND DETAILS
- SHEET 6 SLUDGE DRYING BEDS SECTIONS AND DETAILS
- SHEET 7 PAVEMENT RESTORATION DETAILS
- SHEET 8 PAVEMENT RESTORATION DETAILS
- SHEET 9 MANHOLE DETAILS
- SHEET 10 SURVEY DATA



User: ss8k Drawing Name: K:\micah\autocad\DESIGN WORK\LASHONDA\HFC Sludge Drying Beds\DWGS\Sludge Drying Beds.dwg Layout - Location Map & Index, Mar 31, 2008 - 8:59am

JACINTO CARLOS FERRAS, P.E. #49454 DESIGN DIVISION HEAD WASTEWATER DEPARTMENT	No.	DATE	REVISIONS	DES: LG/JF DRN: MRL CKD: JF DATE: 3/31/08	CITY of TAMPA WASTEWATER DEPARTMENT	HFC AWTP SLUDGE DRYING BED REHABILITATION PHASE I LOCATION MAP & INDEX CONTRACT 8-C-00018	W.O. 4013
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GENERAL NOTES

MANHOLE SCHEDULE

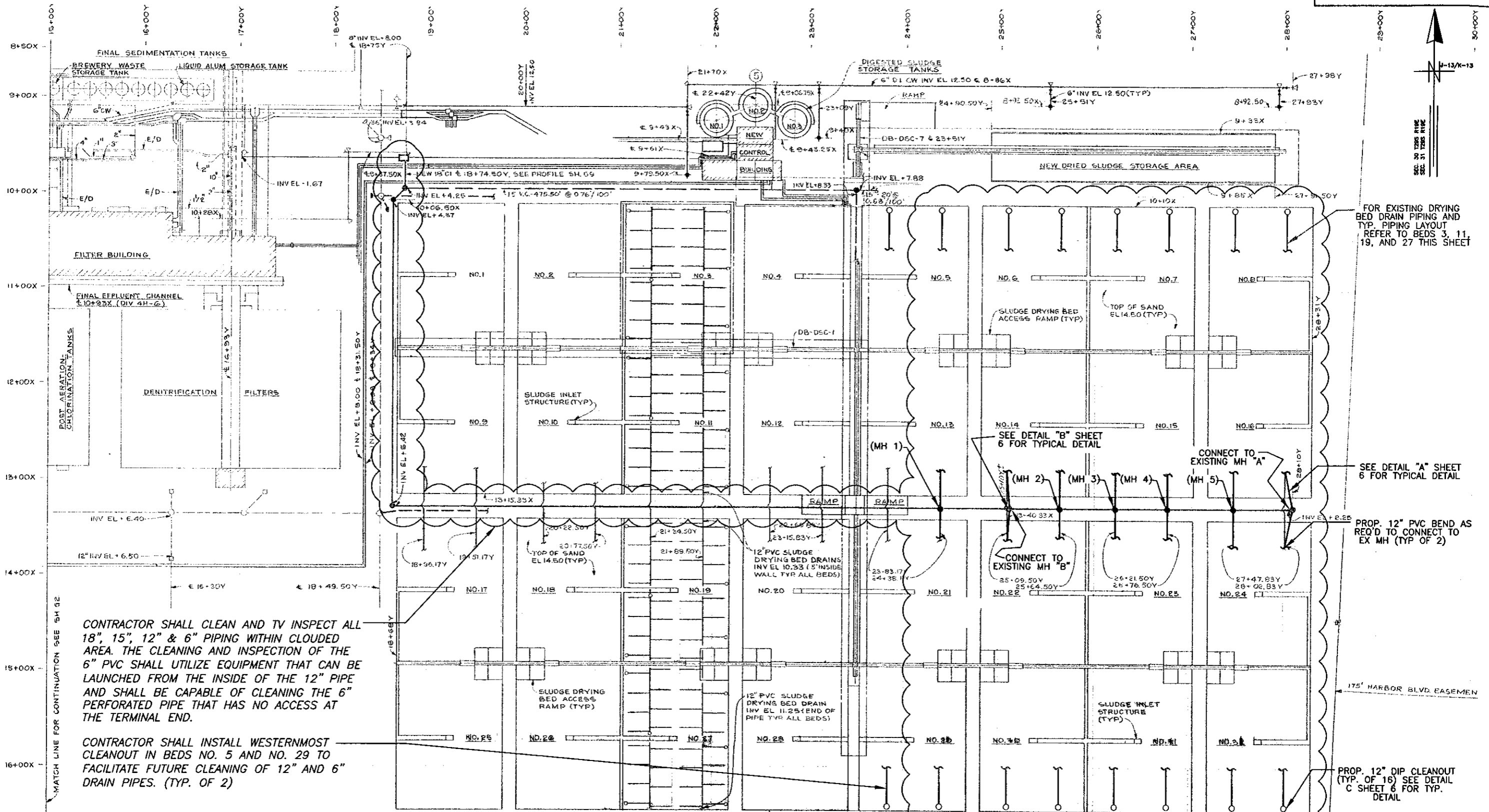
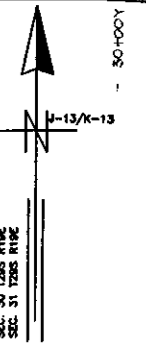
- 1) CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL FIELD MEASUREMENTS AND VERIFYING THE LOCATIONS, ELEVATIONS, AND DIMENSIONS OF ALL EXISTING STRUCTURES AND OTHER FEATURES AFFECTING HIS WORK PRIOR TO SUBMITTAL OF SHOP DRAWINGS OR STARTING CONSTRUCTION.
- 2) THE CONSTRUCTION OF ALL MANHOLES AND PIPING TO FACILITATE THE CLEANING OF THE SLUDGE DRYING BED PIPING SHALL BE COMPLETED AND APPROVED BY THE CITY PRIOR TO THE START OF ANY CLEANING AND INSPECTION ACTIVITIES.
- 3) CONTRACTOR WILL BE ALLOWED TO WORK ON ONLY 4 DRYING BEDS AT ONE TIME. THE 4 DRYING BEDS THAT WILL BE TAKEN OUT OF SERVICE SHALL BE ORIENTED IN THE SAME NORTH/SOUTH CONFIGURATION. FOR EXAMPLE, THE CONTRACTOR CAN WORK ON EITHER SLUDGE BEDS 8-16-24-32, 7-15-23-31, 6-14-22-30 OR 5-13-21-29. ALL WORK SHALL BE DONE AS PLANT OPERATIONS PERMIT.
- 4) ALL PROPOSED PIPING SHALL BE GREEN PVC SDR-35 PIPE IN ACCORDANCE WITH ASTM D3034 UNLESS OTHERWISE NOTED. THERE WILL BE NO LEAKAGE OR DEFLECTION TESTING REQUIRED. PIPE SHALL BE INSTALLED IN ACCORDANCE WITH PIPE MANUFACTURER AND UNIBELL RECOMMENDATIONS.
- 5) PROPOSED MANHOLES SHALL BE PRECAST CONCRETE IN ACCORDANCE WITH ASTM C-478, SPECIFICATIONS AND STANDARD DETAILS AS INCLUDED IN THIS PLAN SET. DROP CONNECTIONS WILL NOT BE REQUIRED EVEN THOUGH THE DROPS RANGE FROM 2 TO 4 FEET. INSTEAD, THE MANHOLE BENCHES SHALL BE BUILT UP. CONTRACTOR MAY SUBMIT 5-INCH THICK MANHOLE WALLS IN LIEU OF THE 8-INCH THICK WALLS DEPICTED ON THE STANDARD DETAILS.
- 6) FLEXIBLE ADAPTORS SHALL BE AS MANUFACTURED BY FERNCO OR APPROVED EQUAL.
- 7) CONTRACTOR SHALL REFER TO SPECIFICATIONS FOR DRYING BED REPLACEMENT MEDIA REQUIREMENTS AND THE CONTRACTOR'S RESPONSIBILITIES FOR THE DISPOSAL OF (1) THE REMOVED DRYING BED MEDIA AND (2) DEBRIS REMOVED FROM THE PIPELINES WHILE CLEANING.
- 8) CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR COMPLYING WITH ALL APPLICABLE OSHA SAFETY REGULATIONS.
- 9) BACKFILL OF ROADWAY SUBBASE SHALL BE COMPACTED IN 12" LAYERS TO 98% MAXIMUM DRY DENSITY OF MODIFIED PROCTOR IN CONFORMANCE WITH AASHTO T-180, METHOD A.
- 10) CONTRACTOR SHALL REMOVE VEGETATION IN BEDS 21 AND 29 AS NECESSARY TO INSTALL THE PROPOSED PIPE AND CLEANOUTS. COST OF THE VEGETATION REMOVAL SHALL BE INCLUDED IN THE COST OF THE PIPE AND NO ADDITIONAL PAYMENT WILL BE MADE.
- 11) FOR PIPE CONNECTING TO EXISTING MANHOLES, CONTRACTOR SHALL CORE DRILL EXISTING PRECAST CONCRETE MANHOLES AND INSTALL KOR-N-SEAL BOOT. THE PAY ITEM "CONNECTION TO EXISTING MANHOLE" SHALL INCLUDE THE 2 CONNECTIONS INTO EACH MANHOLE.

MANHOLE NUMBER	RIM ELEVATION	15" INVERT ELEVATION	DEPTH	12" INVERT ELEVATION (ASSUMED)
1	14.52	6.06	8.46	9.80
B (EXISTING)	14.52	6.62	7.90	9.80
2	14.60	7.18	7.42	9.80
3	14.65	7.59	7.06	9.80
4	14.63	8.00	6.63	9.80
5	14.71	8.41	6.30	9.80
A (EXISTING)	14.79	8.82	5.97	9.80

- 1) CONTRACTOR SHALL VERIFY THE ACTUAL LOCATION OF THE NORTH AND SOUTH 12" DRAIN PIPES INSIDE THE SLUDGE BEDS (AT CONNECTION POINT) BEFORE CONSTRUCTING MANHOLES
- 2) THE RIM AND INVERT ELEVATIONS ARE BASED ON A RECENT SURVEY USING N.O.S DATUM. REFER TO SHEET 10 FOR THE COMPLETE SURVEY DATA. MANHOLE SHOP DRAWINGS SHALL REFLECT THE SURVEY DATA. IT IS RECOMMENDED THAT THE 12" CONNECTIONS TO THE MANHOLES BE CORE DRILLED DUE TO THE UNCERTAIN ELEVATION OF THE 12" DRAIN PIPES.
- 3) THE BRICK MORTAR SECTION OF ALL PROPOSED MANHOLES GREATER THAN 7 FEET DEEP SHALL EXTEND BEYOND THE MINIMUM 6-INCH TO MEET FINISH GRADE.

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JACINTO CARLOS FERRAS, P.E. #49454 DESIGN DIVISION HEAD WASTEWATER DEPARTMENT	No.	DATE	REVISIONS	DES: LG/JF DRN: MRL CKD: JF DATE: 3/31/08	CITY of TAMPA WASTEWATER DEPARTMENT	HFC AWTP SLUDGE DRYING BED REHABILITATION PHASE I GENERAL NOTES CONTRACT 8-C-00018	W.O. 4013
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	1						OF 10



CONTRACTOR SHALL CLEAN AND TV INSPECT ALL 18", 15", 12" & 6" PIPING WITHIN CLOUDED AREA. THE CLEANING AND INSPECTION OF THE 6" PVC SHALL UTILIZE EQUIPMENT THAT CAN BE LAUNCHED FROM THE INSIDE OF THE 12" PIPE AND SHALL BE CAPABLE OF CLEANING THE 6" PERFORATED PIPE THAT HAS NO ACCESS AT THE TERMINAL END.

CONTRACTOR SHALL INSTALL WESTERNMOST CLEANOUT IN BEDS NO. 5 AND NO. 29 TO FACILITATE FUTURE CLEANING OF 12" AND 6" DRAIN PIPES. (TYP. OF 2)

- NOTES**
1. ALL PROPOSED WORK AND ASSOCIATED TEXT ARE SHOWN WITH DARKER LINE WEIGHT

FOR EXISTING DRYING BED DRAIN PIPING AND TYP. PIPING LAYOUT REFER TO BEDS 3, 11, 19, AND 27 THIS SHEET

SEE DETAIL "A" SHEET 6 FOR TYPICAL DETAIL

PROP. 12" PVC BEND AS REQ'D TO CONNECT TO EX MH (TYP OF 2)

PROP. 12" DIP CLEANOUT (TYP. OF 16) SEE DETAIL C SHEET 6 FOR TYP. DETAIL

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JACINTO CARLOS FERRAS, P.E. #49454
 DESIGN DIVISION HEAD
 WASTEWATER DEPARTMENT

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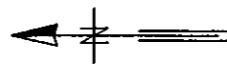
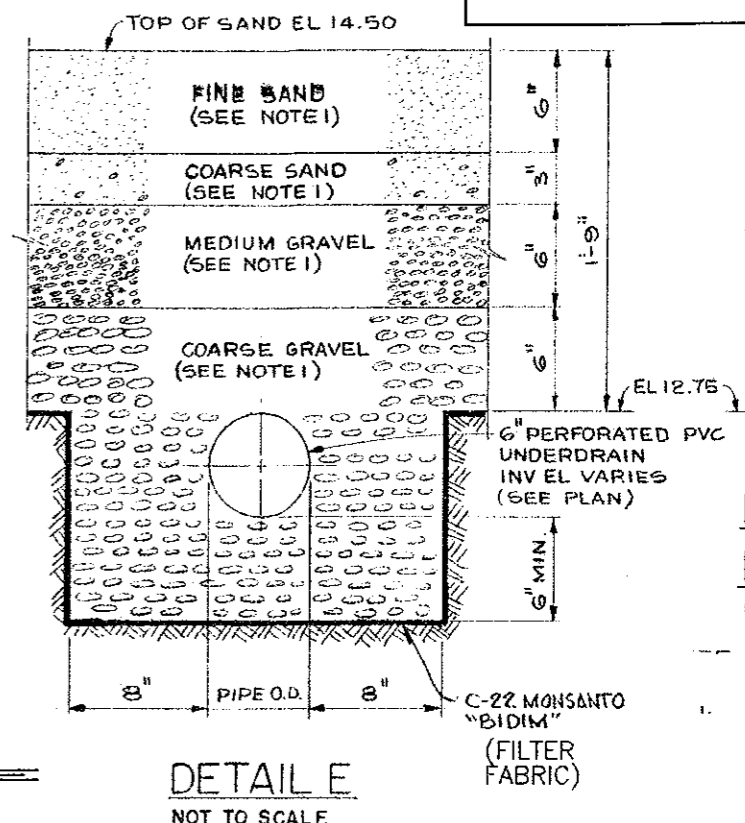
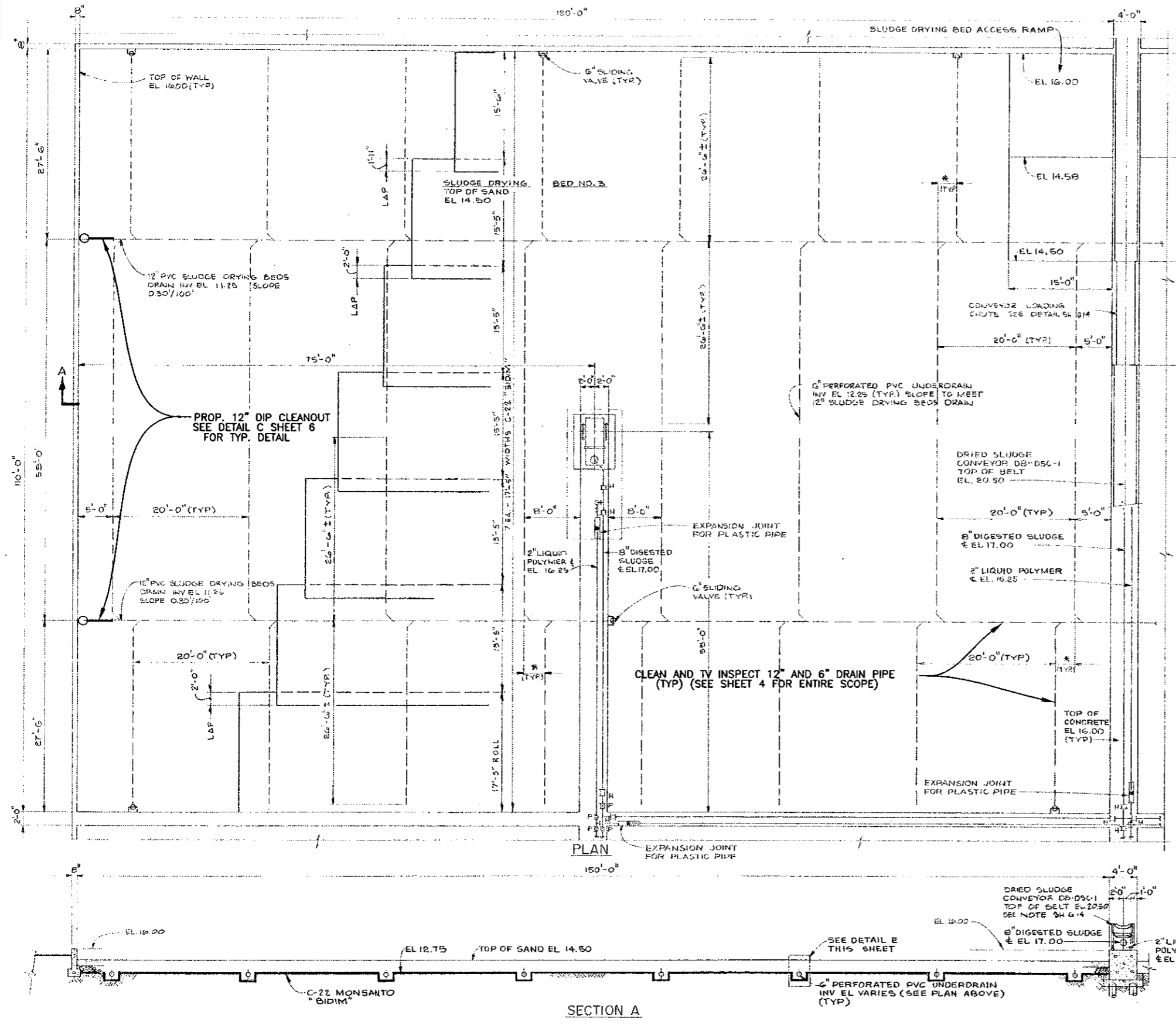
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CITY of TAMPA
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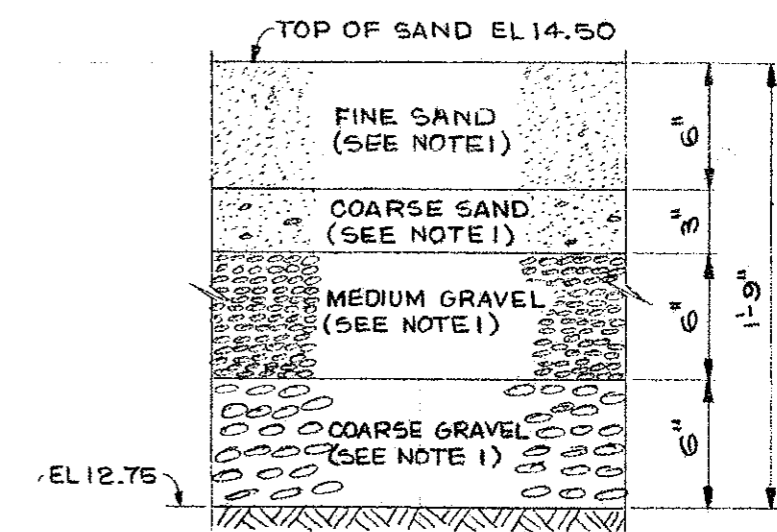
SCALE
 1" = 100'

HFC AWTP SLUDGE DRYING BED REHABILITATION PHASE I
 OUTSIDE PIPING
 CONTRACT 8-C-00018

W.O. 4013
 SHEET
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NOTE 1: SEE SPECIFICATIONS FOR GRADATION OF DRYING BED AGGREGATES



DETAIL F (TYP. DRYING BED CONSTRUCTION)
NOT TO SCALE

JACINTO CARLOS FERRAS, P.E. #49454
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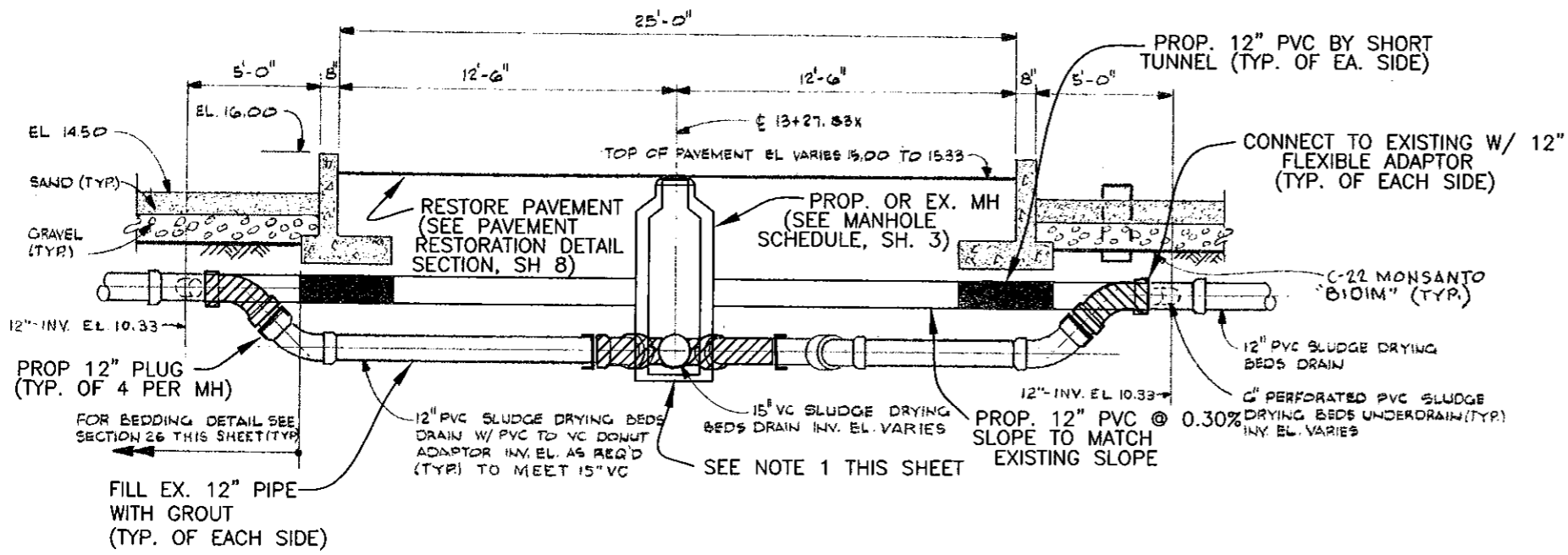
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CITY of TAMPA
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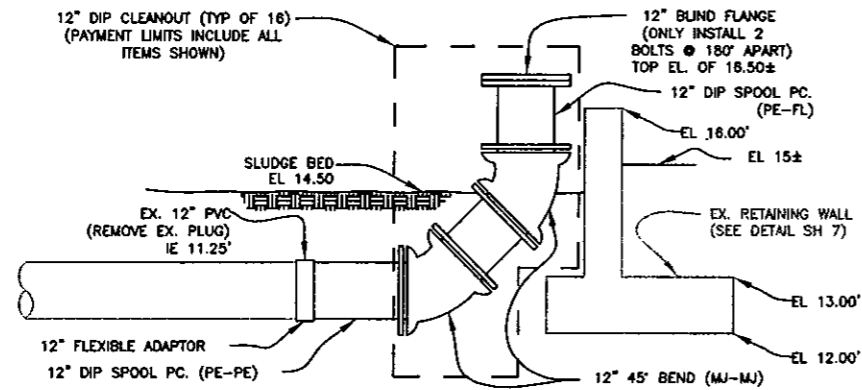
HFC AWTP SLUDGE DRYING BED
REHABILITATION PHASE I
TYPICAL SLUDGE BED
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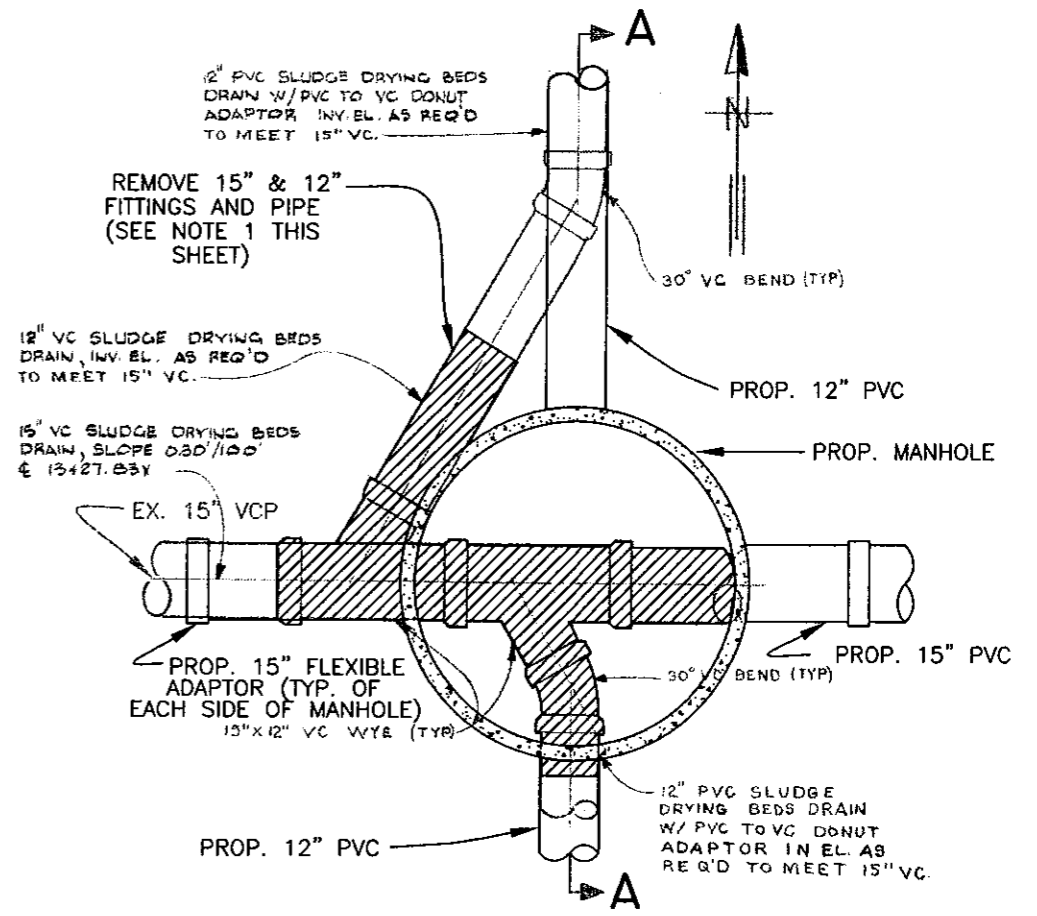
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SECTION "A-A"
DETAIL "A" (TYP. OF 5)



SECTION VIEW
PROPOSED 12" DIP CLEANOUT DETAIL "C"



SECTIONAL PLAN VIEW
PROPOSED MANHOLE DETAIL "B"

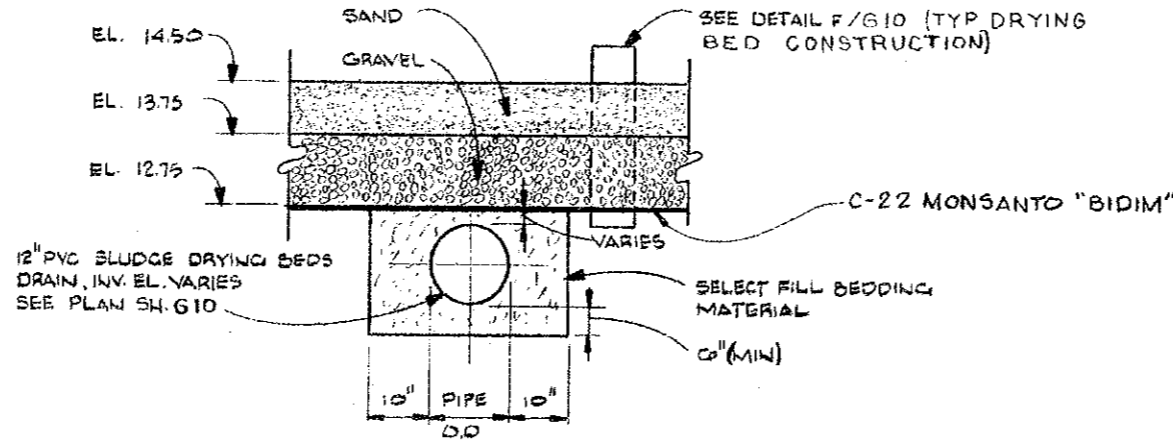
NOTES

- 1) REMOVE ALL 12" PVC PIPE WITHIN EXCAVATION OF MANHOLE, GROUT AND INSTALL 12" PLUGS ON PIPE TO REMAIN.
- 2) ALL PROPOSED WORK AND ASSOCIATED TEXT ARE SHOWN WITH DARKER LINE WEIGHT AND ARE SUPERIMPOSED OVER THE ORIGINAL DRYING BED DRAWINGS. ELEVATIONS SHOWN ARE BASED ON OLD CITY DATUM.
- 3) THE DETAILS THAT DO NOT SHOW ANY NEW WORK ARE PROVIDED FOR INFORMATION PURPOSES ONLY.
- 4) THE EXISTING 12" OPENINGS IN MANHOLES "A" AND "B" SHALL BE PLUGGED.
- 5) CONTRACTOR SHALL IMPLEMENT NECESSARY MEASURES TO MINIMIZE THE SIZE OF THE TRENCH AND THE AMOUNT OF DRYING BED MEDIA REQUIRED.

HATCHING INDICATES TO REMOVAL OF PIPE AND FITTINGS

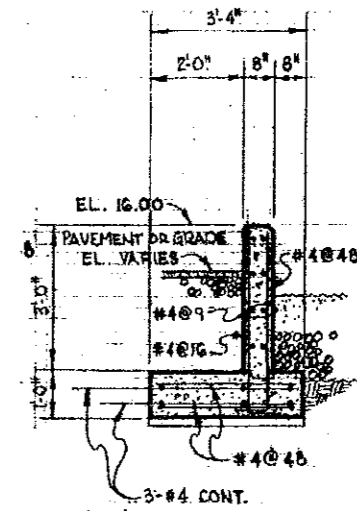
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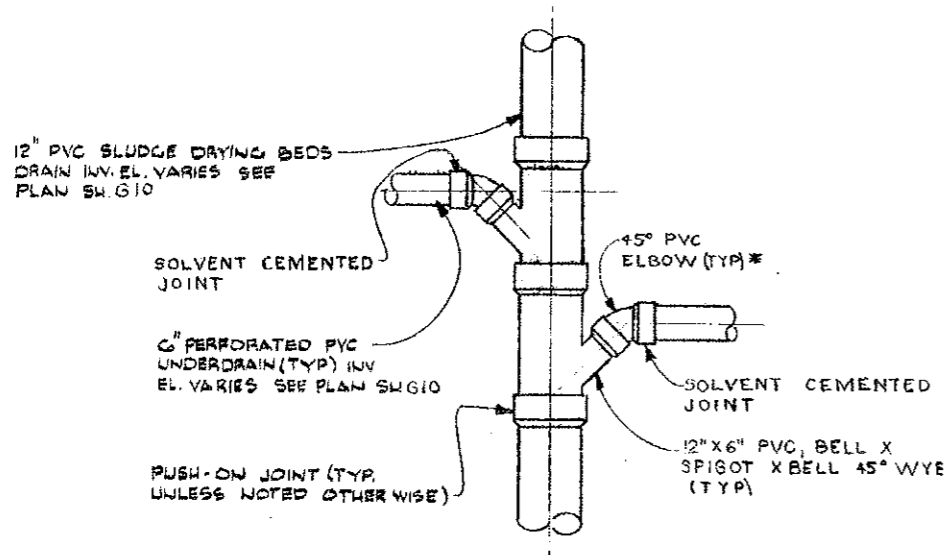
SECTION VIEW
EX. AND PROP. PIPE BEDDING DETAIL

M/S



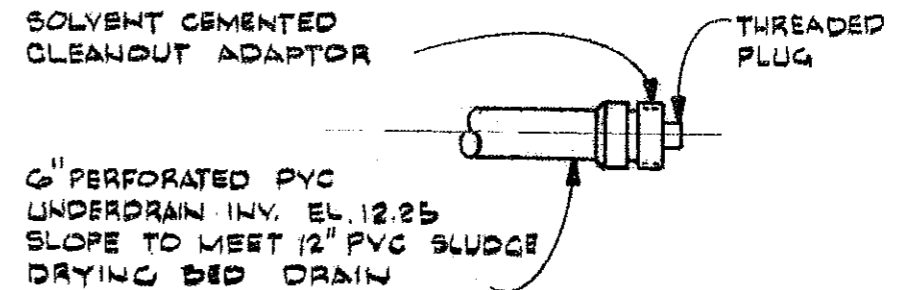
SECTION VIEW
EX. RETAINING WALL DETAIL

M/S



PLAN VIEW
EX. 12"X6" WYE PLAN VIEW

M/S



EX. 6" PVC TERMINATION DETAIL

M/S

NOTES

- 1) ALL PROPOSED WORK AND ASSOCIATED TEXT ARE SHOWN WITH DARKER LINE WEIGHT AND ARE SUPERIMPOSED OVER THE ORIGINAL DRYING BED DRAWINGS. ELEVATIONS SHOWN ARE BASED ON OLD CITY DATUM.
- 2) THE DETAILS THAT DO NOT SHOW ANY NEW WORK ARE PROVIDED FOR INFORMATION PURPOSES ONLY

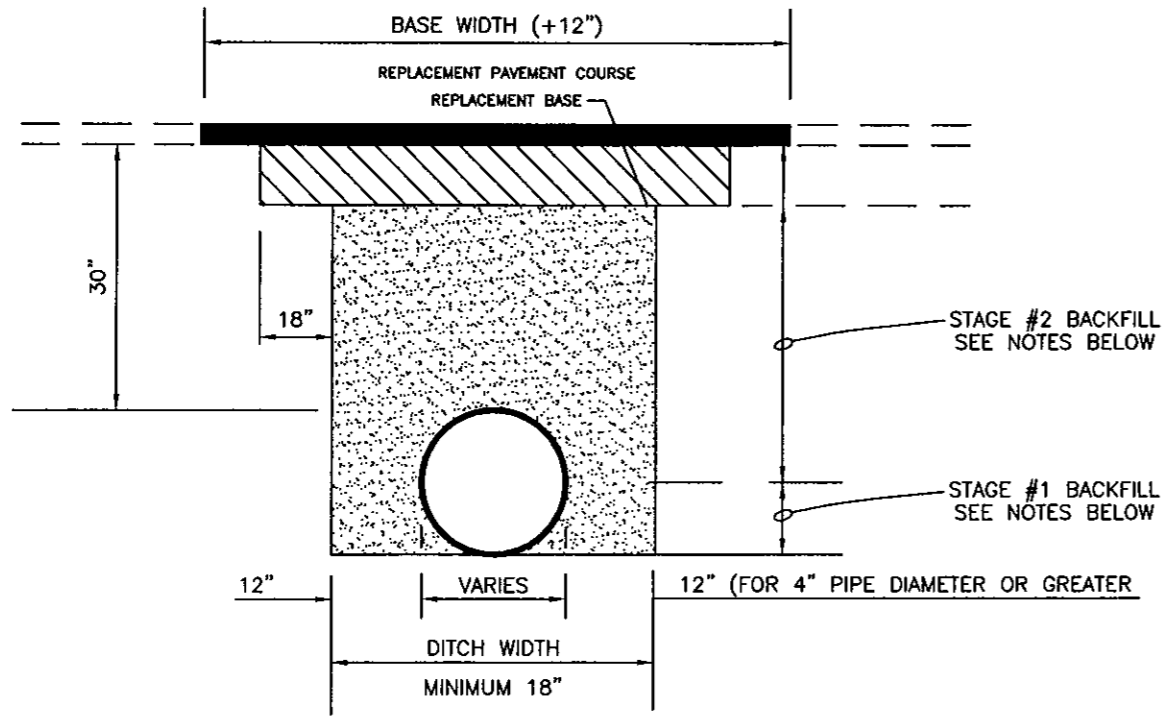
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STANDARD DETAILS FOR RESTORATION WITHIN ROADWAY

(DETAILS MODIFIED FROM FDOT DESIGN STANDARDS INDEX 307)

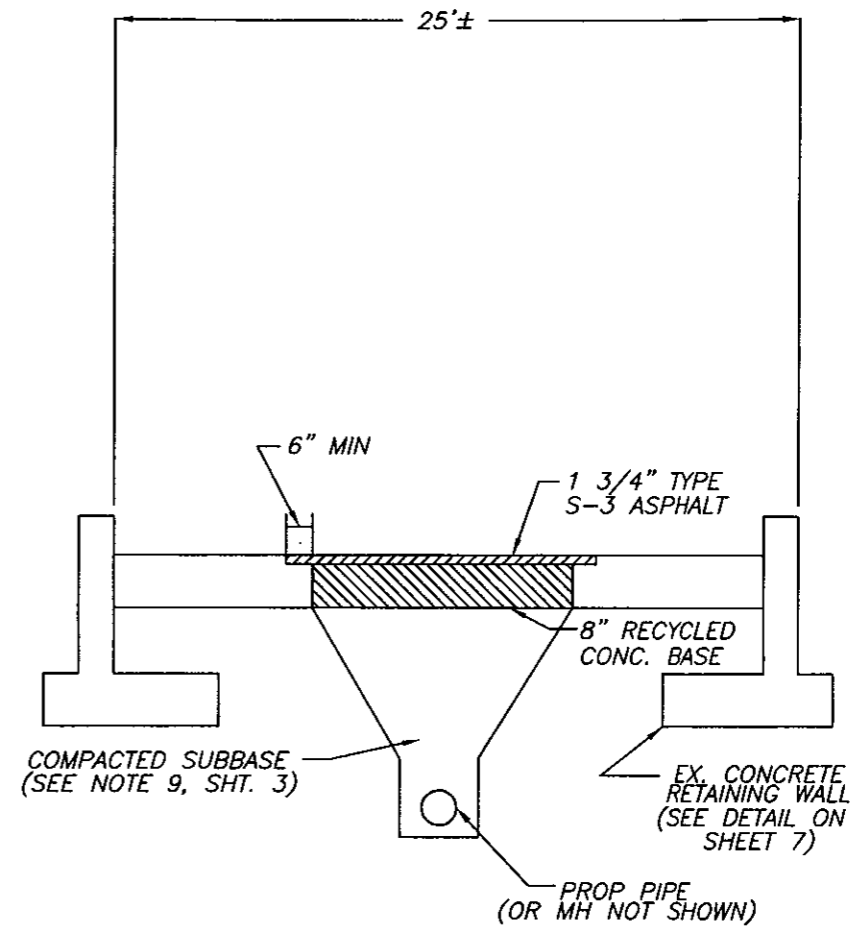
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FLEXIBLE PAVEMENT NOTES

- 1) PAVEMENT SHALL BE MECHANICALLY SAWED.
- 2) PAVEMENT, BASE, AND BACKFILL MATERIAL SHALL BE PLACED IN ACCORDANCE WITH CITY OF TAMPA PAVEMENT RESTORATION REQUIREMENTS-2003
- 3) IN STAGE #1, CONSTRUCT COMPACTED FILL BENEATH THE HAUNCHES OF THE PIPE, USING MECHANICAL TAMPS SUITABLE FOR THIS PURPOSE. THIS COMPACTION APPLIES TO THE MATERIAL PLACED BENEATH THE HAUNCHES OF THE PIPE AND ABOVE ANY BEDDING.
- 4) IN STAGE #2, CONSTRUCT COMPACTED FILL ALONG SIDE OF THE PIPE AND UP TO THE BOTTOM OF THE BASE. COMPACT MATERIAL USING MECHANICAL TAMPS SUITABLE TO ACHIEVE DENSITY MEETING 95% OF AASHTO T-180, LIFTS NOT TO EXCEED 12" COMPACTED.

NOTE: SPECIFICATIONS STANDARDS AND REQUIREMENTS NOT ILLUSTRATED SHALL MEET LATEST FDOT STANDARD SPECIFICATIONS.



PAVEMENT RESTORATION SECTION

NTS

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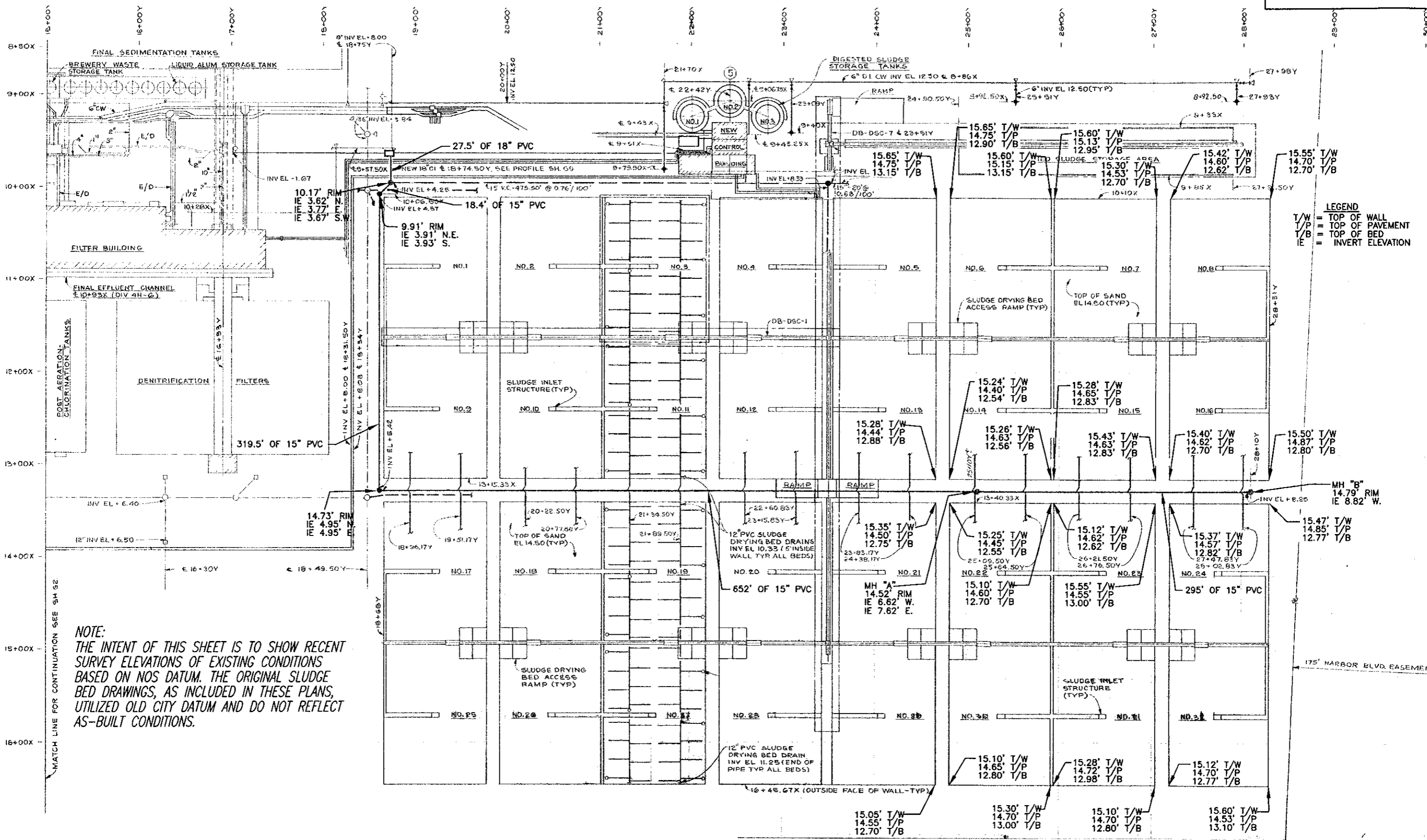
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DESIGN DIVISION HEAD
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CITY of TAMPA
WASTEWATER DEPARTMENT

**HFC AWTP SLUDGE DRYING BED
REHABILITATION PHASE I
PAVEMENT RESTORATION DETAILS
CONTRACT 8-C-00018**

W.O. 4013
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LEGEND
 T/W = TOP OF WALL
 T/P = TOP OF PAVEMENT
 T/B = TOP OF BED
 IE = INVERT ELEVATION

NOTE:
 THE INTENT OF THIS SHEET IS TO SHOW RECENT SURVEY ELEVATIONS OF EXISTING CONDITIONS BASED ON NOS DATUM. THE ORIGINAL SLUDGE BED DRAWINGS, AS INCLUDED IN THESE PLANS, UTILIZED OLD CITY DATUM AND DO NOT REFLECT AS-BUILT CONDITIONS.

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