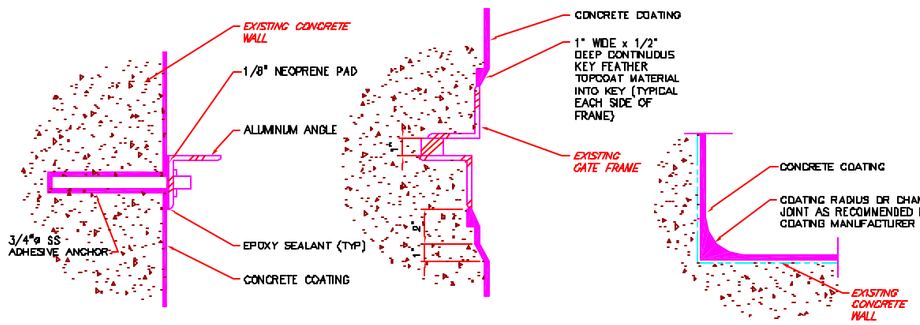
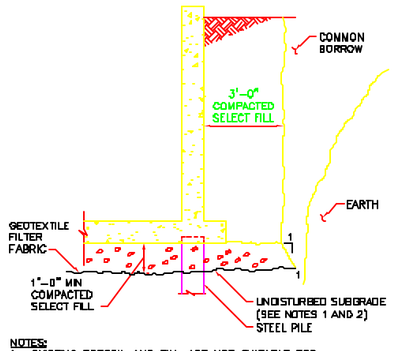


DETAIL OF COATING AT WALL MOUNTED ANGLE
SCALE: 3"=1'-0"

DETAIL OF COATING AT GATE FRAME
SCALE: 3"=1'-0"

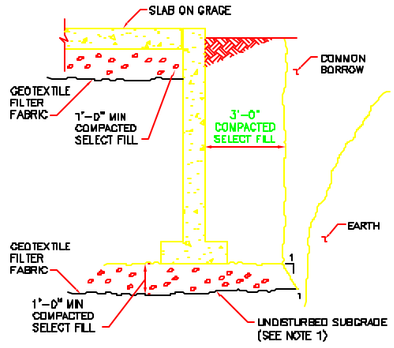
DETAIL OF COATING AT WALL INTERSECTION
SCALE: 3"=1'-0"

SPECIAL CONCRETE COATING DETAILS



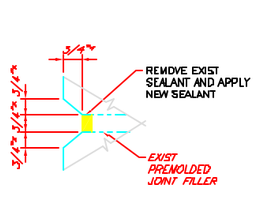
NOTES:
1. EXISTING TOPSOIL AND FILL ARE NOT SUITABLE FOR SUPPORT OF PROPOSED STRUCTURES. THESE MATERIALS THAT ARE EXCAVATED AND REMOVED SHALL BE REPLACED BY COMPACTED SELECT FILL.
2. UNDISTURBED SUBGRADE SHALL CONSIST OF NATIVE MATERIAL NOT DISTURBED BY EXCAVATION OR LEDGE THAT HAS NOT BEEN BLASTED.
3. ALL SELECT FILL SHALL BE COMPACTED TO 95% OF MAXIMUM DRY DENSITY.
4. DETAIL IS TYPICAL FOR SCUM CONCENTRATING AND DECANT PITS.

STRUCTURAL BACKFILL DETAIL – TYPE I
NTS

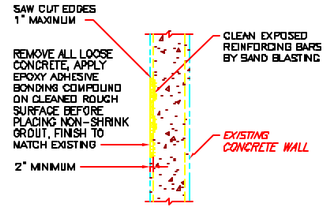


NOTES:
1. UNDISTURBED SUBGRADE SHALL CONSIST OF NATIVE MATERIAL NOT DISTURBED BY EXCAVATION.
2. ALL SELECT FILL SHALL BE COMPACTED TO 95% OF MAXIMUM DRY DENSITY.
3. DETAIL IS TYPICAL FOR STRUCTURES NOT SUPPORTED BY PILES.

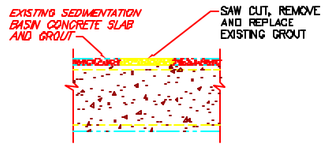
STRUCTURAL BACKFILL DETAIL – TYPE II
NTS



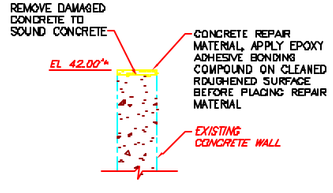
EXISTING EXPANSION AND CONTROL JOINT SEALANT REPAIR DETAIL (BID ITEM 8)
NTS



PRIMARY SEDIMENTATION BASIN TANK WALL REPAIR (BID ITEM 9)
NTS



PRIMARY SEDIMENTATION BASIN TANK SLAB REPAIR (BID ITEM 10)
NTS



PRIMARY SEDIMENTATION BASIN TANK TOP OF WALL REPAIR
NTS

MISCELLANEOUS CONCRETE REPAIRS

NOTE: ALL REPAIRS SHALL BE FIELD LOCATED BY ENGINEER.

STRUCTURAL ABBREVIATIONS:

ALUMINUM	ALUM(AL)
ANCHOR BOLT	AB
AND	&
ANGLE	L
ARCHITECT	ARCH
AT	@
BEAM	BM
BOTTOM	BOT
BOTTOM OF CONCRETE	BOC
CROSS BRACING	CB
CENTER	CTR
CENTERLINE	℄
CLEAR	CL
COLUMN	COL
CONCRETE	CONC
CONCRETE MASONRY UNIT	CMU
CONTINUOUS	CONT
CONTROL JOINT	CJ
DETAIL	DET
DIAMETER	DIA, ø
EACH FACE	EF
EACH WAY	EW
ELEVATION (HEIGHT)	ELEV (EL)
EQUAL	EQ
EXPANSION	EXP
EXTERIOR	EXT
FEET	FT
FLOOR DRAIN	FD
GALVANIZED	GALV
GAUGE	GA
HIGH	H
HIGH POINT	HP
HORIZONTAL	HORIZ(HOR)
INSIDE DIAMETER	ID
INSIDE FACE	IF
INSULATION	INSUL
JOINT	JT
LONG	LG
LOW POINT	LP
MANUFACTURER	MFR
MASONRY	MAS
MAXIMUM	MAX
MINIMUM	MIN
MODULAR OPENING	MO
MOUNTED	MTD
MOUNTING	MTG
NOT TO SCALE	NTS
NUMBER	NO
ON CENTER	OC
OPENING	OPNG
OUTSIDE DIAMETER	OD
OUTSIDE FACE	OF
PER	/
PERIMETER	PERIM
PLATE	PL
POUND	#
PROCESS	PR
PROJECTION	PROJ
REINFORCING	REINF
REQUIRED	REQ'D
ROUGH OPENING	RO
SCHEDULE	SCHED(SCH)
SECTION	SECT
SHEET	SHT
SIMILAR	SIM
SLOPE	SL
SPACE(ING)	SP
SPECIFICATION	SPEC
SQUARE	SQ
STAINLESS STEEL	SS
STANDARD	STD
STEEL	STL
STRUCTURAL	STRUCT
SYMMETRICAL	SYM
THICKNESS	THK
TOP	T
TOP & BOTTOM	T & B
TOP OF CONCRETE	TOC
TOP OF GROUT	TOG
TOP OF MASONRY	TOM
TOP OF PLANK/PLATE	TOP
TREAD	T
TYPICAL	TYP
UNLESS OTHERWISE NOTED	UON
WATERSTOP	WS
WELDED WIRE FABRIC	WWF
WIDE	W
WITH	W/
WITHOUT	W/O
WOOD	WD

NOTES:

CONCRETE NOTES:

1. REINFORCED CONCRETE SHALL CONFORM TO THE ACI SPECIFICATION 318-99 AND ACI 350R-89.
2. MINIMUM CONCRETE STRENGTH AT 28 DAYS:
   STRUCTURAL CONCRETE $f'c = 4000$ PSI
   CONCRETE FILL $f'c = 4000$ PSI
3. REINFORCING STEEL SHALL BE NEW BILLET-STEEL DEFORMING TO ASTM SPECIFICATION A615 GRADE 60 DEFORMED BARS.
4. REINFORCING STEEL FABRICATION SHALL BE IN ACCORDANCE WITH THE CSRI CODE OF STANDARD PRACTICE.
5. REINFORCING STEEL SHALL HAVE THE FOLLOWING CLEAR CONCRETE COVER UNLESS OTHERWISE NOTED:
   CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH – 3 INCHES
   ALL OTHER CONCRETE SURFACES – 2 INCHES
6. SPLICED BARS SHALL HAVE A CLASS B TOP BAR TENSION LAP SPLICE UNLESS OTHERWISE NOTED.
7. IN CONCRETE BEAMS 16" OR DEEPER, PROVIDE CONTINUOUS #4@12" EACH SIDE BETWEEN TOP AND BOTTOM REINFORCING.
8. CONSTRUCTION JOINTS SHALL NOT BE PLACED AT LOCATIONS OTHER THAN SHOWN ON THE DRAWINGS UNLESS REVIEWED AND NO EXCEPTIONS TAKEN BY THE ENGINEER.
9. SIZE AND LOCATION OF EQUIPMENT PADS AND ANCHOR BOLTS SHALL BE AS REQUIRED BY THE EQUIPMENT MANUFACTURER.
10. ALL EXPOSED CORNERS AND EDGES OF CONCRETE TO HAVE 3/4" MINIMUM CHAMFER UNLESS OTHERWISE NOTED.
11. REINFORCING BARS SHALL EXTEND 12 BAR DIAMETERS BUT NOT LESS THAN 12" BEYOND BEND UNLESS OTHERWISE NOTED.
12. CUT NO BARS AND OMIT NO BARS BECAUSE OF SLEEVE OR DUCT OPENINGS IN SLABS OR WALLS. BARS MAY BE MOVED ASIDE WITHOUT CHANGING THE DISTANCE FROM FACE OF CONCRETE, GENERALLY, NOT MORE THAN 1/2 BAR SPACING. FIELD BENDING OF REINFORCING STEEL IS NOT ALLOWED.

STRUCTURAL STEEL:

1. ALL STEEL MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF AISC MANUAL FOR STEEL CONSTRUCTION.
2. ALL STEEL WIDE-FLANGE SHAPES SHALL BE ASTM A992 OR ASTM A36. ALL STEEL ANGLES, CHANNELS AND PLATES SHALL BE ASTM 36, UNLESS OTHERWISE NOTED. STRUCTURAL TUBE STEEL SHALL BE ASTM A500, GRADE B. ALL STRUCTURAL STEEL SHALL BE HOT-DIPPED GALVANIZED.
3. FIELD CONNECTIONS SHALL BE ASTM A325-N HIGH STRENGTH BOLTS EXCEPT AS NOTED. BOLTS SHALL BE 3/4"ø IN 13/16"ø HOLES EXCEPT AS NOTED. TIGHTENING SHALL BE DONE BY THE "TURN OF THE NUT" METHOD. ALL BOLTS SHALL BE HOT-DIPPED GALVANIZED
4. WELDING SHALL BE IN ACCORDANCE WITH AWS D1.1. ALL WELDS SHALL BE E70XX ELECTRODE OR STRONGER, UNLESS OTHERWISE NOTED.
5. THE DESIGN OF CONNECTIONS NOT SHOWN ON THE DRAWINGS SHALL BE PROVIDED BY THE FABRICATOR. EACH BEAM CONNECTION SHALL BE CAPABLE OF SUPPORTING ONE HALF THE TOTAL ALLOWABLE UNIFORM LOAD CAPACITY OF THE MEMBER, AS SHOWN IN THE TABLES OF UNIFORM LOAD CONSTANTS PER PART 2 OF THE AISC MANUAL OF STEEL CONSTRUCTION.
6. ALL COLUMNS SHALL BE LATERALLY BRACED UNTIL PERMANENT BRACING IS ERECTED.

MISCELLANEOUS METALS:

1. ANCHOR RODS SHALL BE ASTM F1554 GRADE 55.
2. ALUMINUM MEMBERS SHALL BE ASTM B308-84 ALLOY 6061-T6 UNLESS OTHERWISE NOTED.
3. STAINLESS STEEL FASTENERS SHALL CONFORM TO ASTM F593 AND ASTM F594.
4. ALL ALUMINUM MEMBER CONNECTIONS SHALL BE MADE WITH A MINIMUM OF 2-3/4"ø SS BOLTS, UNLESS OTHERWISE NOTED.
5. EXPANSION ANCHORS SHALL BE AISI TYPE 316 STAINLESS STEEL. EMBEDMENT DEPTH SHALL BE MANUFACTURER'S STANDARD DEPTH.

FOUNDATION NOTES:

1. PRIOR TO BACKFILLING, ALL NEW CONSTRUCTED TANKS AND OTHER LIQUID CONTAINING STRUCTURES SHALL BE LEAK TESTED IN ACCORDANCE WITH SPECIFICATION SECTION 03305.
2. WATER LEAKAGE TESTS AND/OR BACKFILLING SHALL NOT COMMENCE UNTIL THE CONCRETE HAS BEEN IN PLACE FOR A MINIMUM OF 28 DAYS AND HAS ATTAINED A COMPRESSIVE STRENGTH OF 4,000 PSI.
3. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO MAINTAIN A CONTINUOUS DEWATERING SYSTEM TO INSURE AGAINST FLOTATION OF THE NEW STRUCTURES UNTIL CONSTRUCTION AND BACKFILL ARE COMPLETE.
4. STRUCTURE FOUNDATIONS:
   A. PILE SUPPORTED STRUCTURES – THE EXISTING SOILS ARE NOT ADEQUATE TO SUPPORT THE NEW STRUCTURES. FOUNDATION DESIGNS WERE BASED ON BEING STRUCTURALLY SUPPORTED BY HP 10x42 STEEL PILES. PILE CAPACITY = 40 TON.
   B. SOIL SUPPORTED STRUCTURES – FOUNDATION DESIGN, SUBGRADE AND FILL DETAILS ARE BASED ON A MAXIMUM NET ALLOWABLE SOIL BEARING CAPACITY OF 2000 PSF. IF SOILS AT EXCAVATION BOTTOMS DO NOT MEET THESE CAPACITIES AS VERIFIED BY THE ENGINEER, THE UNSUITABLE MATERIAL SHALL BE REMOVED AND REPLACED WITH MATERIAL AS DIRECTED BY HE ENGINEER.
5. ALL CONCRETE STRUCTURES SHALL BE COVERED, INSULATED AND HEATED AS REQUIRED TO PREVENT FROST PENETRATION BENEATH THE STRUCTURES UNTIL ACCEPTANCE BY THE OWNER.

GENERAL NOTES:

1. ALL STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH THE PROCESS, MECHANICAL ARCHITECTURAL AND ELECTRICAL DRAWINGS, SHOP DRAWINGS AND SPECIFICATIONS.
2. SEE PROCESS, MECHANICAL ARCHITECTURAL AND ELECTRICAL DRAWINGS FOR REGLETS, DOVETAIL SLOTS, PIPE SLEEVES, CONDUITS OR OTHER ITEMS TO BE EMBEDDED OR PASSED THROUGH THE CONCRETE.
3. THE CONTRACTOR SHALL COORDINATE PREPARED OPENING SIZES AND LOCATIONS WITH THE VARIOUS CONSTRUCTION TRADES. MANY SLEEVE SIZES AND PREPARED OPENING SIZES ARE LARGER THAN THE NOMINAL DIMENSION IN ORDER TO ACCOMODATE THE EQUIPMENT. THE GENERAL CONTRACTOR SHALL COORDINATE WITH ALL CONSTRUCTION TRADES FOR THEIR REQUIRED PENETRATIONS THROUGH THE CONCRETE PRIOR TO CONCRETE PLACEMENT.
4. THE DETAILS SHOWN ON DRAWINGS S-17, S-18 AND S-19 SHOULD BE USED WHOLLY OR IN PART WHERE THEY APPLY EXCEPT WHERE MODIFIED BY THE DETAILED DRAWINGS OR SPECIFICATIONS.

NO	REVISIONS	APP'D	DATE
	PROGRESS PRINTS		
	ISSUED FOR REVIEW: 4-5-01		
	ISSUED FOR BIDDING: 5-4-01		
	WALT LUCKING		
	LAST SAVED ON		
	FILENAME:		

DRAWN BY: EWD
CHECKED BY: WALT/OTB
DATE: 5-4-01
APPROVED BY: DCS
DATE: 5-4-01
BOOK NO. –
PROJECT NO. 2126A
SCALE: NO SCALE

Wright-Pierce
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PORTLAND WATER DISTRICT
PORTLAND, MAINE
PRIMARY SEDIMENTATION BASINS
UPGRADE WITH ODOR CONTROL FACILITIES
STANDARD DETAILS III

DWG S-19
28 OF 79