

CITY OF PORTLAND PUBLIC SERVICES DEPARTMENT

CONTRACT DRAWINGS

FALL BROOK – PHASE 3 SEWER SEPARATION PROJECT

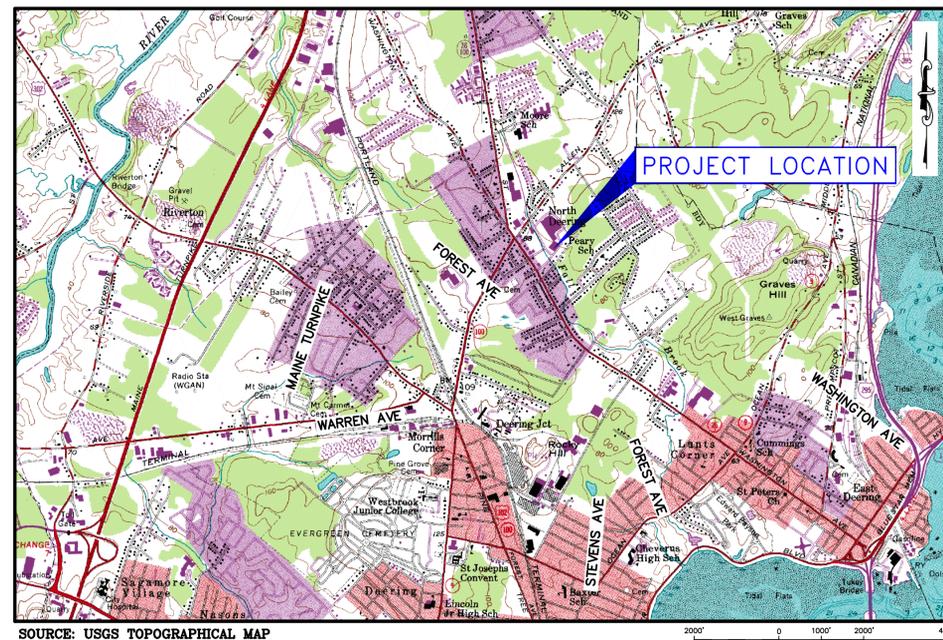
YEAR
APPROVED
2010

BID NUMBER: 6210
100% PLANS
MARCH 2010

<u>PERMITS</u>		
<u>TYPE OF PERMIT</u>	<u>GOVERNING BODY</u>	<u>STATUS</u>
NATURAL RESOURCE PROTECTION ACT, TIER 3	MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION & ARMY CORPS OF ENGINEERS	APPROVED JAN 13, 2010

KATHERINE A. EARLEY, PE DATE
CITY ENGINEER

NATHANIEL SMITH DATE
CITY PROJECT MANAGER



AS-BUILT
DECEMBER 01, 2011
ALL AS-BUILT INFORMATION PROVIDED BY
D&C CONSTRUCTION
AS-BUILT DRAWING PREPARED BY
GORRILL-PALMER CONSULTING ENGINEERS

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AS-BUILT

LEGEND

EXISTING	DESCRIPTION	PROPOSED
	BUILDING	
	RIGHT OF WAY	
	PROPERTY LINE	
	SEWER EASEMENT	
	PARKING SETBACK	
	BUILDING SETBACK	
	WETLAND BOUNDARY	
	EDGE OF PAVEMENT	
	GRADING CONTOUR LINE	
	SPOT ELEVATION	
	TREELINE	
	TREES & HEDGES	
	POLE WITH LIGHT FIXTURE(S)	
	UTILITY POLE	
	FREESTANDING SIGN	
	PAINTED DIRECTIONAL TRAFFIC ARROW	
	OVERHEAD ELECTRIC/TELEPHONE/CABLE	
	UNDERGROUND ELECTRIC/TELEPHONE/CABLE	
	WATER LINE	
	STORM DRAIN LINE	
	CULVERT	
	HYDRANT	
	WATER GATE VALVE	
	WATER SHUT OFF VALVE	
	MANHOLE	
	CATCH BASIN	
	TEST PIT	
	IRON ROD (SET)	
	IRON ROD (FOUND)	
	MONUMENT	
	RIPRAP	
	SILT FENCE - SINGLE ROW	
	SILT FENCE - DOUBLE ROW	
	STONE SEDIMENT BARRIER	
	CENTER LINE	
	FENCE	
	ROADWAY OVERLAY	
	CLAY BORROW	

GENERAL NOTES:

- EXISTING CONDITIONS BASED ON SURVEY COMPLETED BY TITCOMB ASSOCIATES OF FALMOUTH, MAINE IN 2007, 2008 AND 2009.
- VERTICAL DATUM IS REFERENCED TO CITY DATUM WITH ONE-FOOT CONTOUR INTERVALS. CITY DATUM IS +0.02 FEET OF NGVD 1929. HORIZONTAL DATUM IS REFERENCED TO STATE PLANE NAD 1983 (FEET), MAINE WEST ZONE.
- THE CITY OF PORTLAND SHALL HAVE THE RIGHT AND AUTHORITY TO DETERMINE THE ACCEPTABILITY OF WORK AND MATERIALS IN PROGRESS OR COMPLETED. THE CITY OF PORTLAND SHALL HAVE THE RIGHT TO REJECT ANY WORK OR MATERIALS WHICH DO NOT CONFORM, IN ITS SOLE OPINION, TO THE PLANS OR SPECIFICATIONS.
- PRIOR TO THE BEGINNING OF THE CONSTRUCTION, THE CONTRACTOR SHALL SECURE A STREET OPENING PERMIT FROM THE PORTLAND DEPARTMENT OF PUBLIC SERVICES. NO FEE WILL BE CHARGED FOR THIS PERMIT.
- ALL MATERIAL SCHEDULES SHOWN ON THE PLANS ARE FOR GENERAL INFORMATION ONLY. THE CONTRACTOR SHALL PREPARE HIS OWN MATERIAL SCHEDULES BASED UPON HIS PLAN REVIEW. ALL SCHEDULES SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO ORDERING MATERIALS OR PERFORMING WORK.
- DISPOSITION OF SURPLUS MATERIAL SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. SURPLUS MATERIAL SHALL NOT BE DISPOSED OF ON THE PROJECT SITE. DISPOSITION SHALL BE MADE ONLY AT WASTE AREAS WHICH ARE LICENSED TO ACCEPT SUCH MATERIALS, UNLESS THE MATERIALS CAN BE INCORPORATED IN FILLS IN OTHER PROJECTS OF THE CONTRACTOR. ANY DISPOSITION OF SURPLUS MATERIAL WITHIN THE CITY OF PORTLAND, THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS AND APPROVAL FROM ENGINEER.
- MAINTENANCE OF TRAFFIC SHALL BE PER THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" AND THE MAINE DOT SPECIFICATIONS AND STANDARD PLANS.
- PROPERTY LINE AND R.O.W. MONUMENTS SHALL NOT BE DISTURBED BY CONSTRUCTION. IF DISTURBED, THEY SHALL BE RESET TO THEIR ORIGINAL LOCATIONS AT THE CONTRACTOR'S EXPENSE, BY A MAINE LICENSED LAND SURVEYOR.
- THE CONTRACTOR SHALL CALL THE APPROPRIATE UTILITY COMPANY AND DIG SAFE (888-344-7233) AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR THE ELEVATION OF THE EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND WHERE POSSIBLE MEASUREMENTS TAKEN IN THE FIELD. UNDERGROUND FACILITIES INDICATED ON THE CROSS SECTIONS HAVE BEEN CARRIED OVER FROM THE PLAN VIEW DATA AND MAY ALSO INCLUDE FURTHER APPROXIMATIONS OF THE ELEVATIONS (DEPTH) BASED UPON STRAIGHT LINE INTERPOLATION FROM THE NEAREST MANHOLES, GATE VALVES, OR TEST PITS. THIS INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE ENGINEER HAS COORDINATED THE PROPOSED WORK WITH THE AFFECTED UTILITY COMPANIES TO ARRANGE FOR REQUIRED RELOCATION OF THEIR KNOWN FACILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE HIS WORK AND SCHEDULE WITH THE UTILITY RELOCATION WORK AND THE PROPER UTILITY COMPANY. THE FOLLOWING UTILITIES HAVE FACILITIES WITHIN THE PROJECT LIMITS:
 - CENTRAL MAINE POWER COMPANY
 - UNITL
 - PORTLAND FIRE DEPARTMENT
 - PORTLAND WATER DISTRICT
 - CITY OF PORTLAND
 - TIME WARNER CABLE
 - FAIRPOINT
 - AT&T
- ANY ADDITIONAL UTILITY WORK NOT SPECIFIED ON THE PLANS SHALL BE COMPLETED BY THE RESPECTIVE UTILITY COMPANY.
- CONTRACTOR SHALL COORDINATE DISRUPTION OF PRIVATE UTILITY SERVICES WITH LAND OWNER AT LEAST 2 DAYS (48 HOURS) PRIOR TO SCHEDULED DISRUPTION.
- EXCAVATIONS ACCOMPLISHED AS PART OF THIS PROJECT SHALL BE CONSTRUCTED IN ACCORDANCE WITH SUBPART P OF 29 CRF PART 1926.650-.652 (CONSTRUCTION STANDARD FOR EXCAVATIONS).
- LOCATIONS OF RIGHT-OF-WAY SHOWN ON PLANS ARE APPROXIMATE ONLY.
- THE CONTRACTOR SHALL COMPLETE THE WORK WITHIN THE RIGHT-OF-WAY, AND SHALL BE RESPONSIBLE IF TRESPASSING ON PRIVATE PROPERTY OCCURS.
- CONSTRUCTION ACCESS SHALL BE VIA GERTRUDE AVENUE, LORING AVENUE AND NORTHPORT BUSINESS PARK. CONSTRUCTION ACCESS SHALL NOT BE PERMITTED VIA MAINE AVENUE.
- CONTRACTOR SHALL NOT PARK, IMPEDE ACCESS, OR STORE EQUIPMENT/MATERIAL ON ADJACENT CITY OR PRIVATELY OWNED LAND WITHOUT WRITTEN CONSENT FROM THE CITY OR LAND OWNER.
- THE CONTRACTOR SHALL RESTORE ALL AREAS DISTURBED OR DAMAGED BY CONSTRUCTION ACTIVITIES TO ORIGINAL FINISH SURFACE (LAWN, PAVEMENT, GRAVEL, ETC.) UNLESS NOTED OTHERWISE ON PLANS. RESTORATION OF PAVED SURFACES, GRAVEL SURFACES, DRIVEWAYS, WALKWAYS, LAWNS AND OTHER AREAS SHALL BE INCIDENTAL TO THE PROJECT. ALL CURB DAMAGED BY CONSTRUCTION ACTIVITIES SHALL BE REPLACED IN KIND AND SHALL CONFORM TO CITY OF PORTLAND STANDARDS - COST SHALL BE INCIDENTAL TO THE PROJECT.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PRESERVATION OF ALL TREES AND SHRUBS ON THE PROJECT WHICH ARE NOT TO BE REMOVED.
- EXISTING PAVEMENT STRIPING SHALL BE REPLACED AFTER COMPLETION OF PAVING, PAY ITEM 627.711.
- ALL SIGNING, SIGNAL AND STRIPING MATERIALS AND PLACEMENT SHALL CONFORM TO THE MAINE DOT STANDARD SPECIFICATIONS, SUPPLEMENTAL SPECIFICATIONS AND STANDARD DETAILS AND WITH THE FEDERAL HIGHWAY ADMINISTRATION "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES".
- BUTT JOINTS SHALL BE USED AT ALL LOCATIONS WHERE THE PROPOSED PAVEMENT MEETS EXISTING PAVEMENT. NO FEATHERING OF PAVEMENT WILL BE PERMITTED.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING ANY TRENCH PAVEMENT THAT HAS EXPERIENCED EXCESSIVE SETTLEMENT, CRACKING, OR OPENING OF JOINTS. REPAIRS MAY INCLUDE OVERLAY, REMOVAL OF UNACCEPTABLE MATERIALS, COMPLETE REPLACEMENT, JOINT SEALING, OR RECONSTRUCTING PAVEMENT JOINTS AS REQUIRED. THIS WORK MAY BE NECESSARY AFTER THE FINAL ACCEPTANCE OF WORK OR PRIOR TO THE ONE YEAR GUARANTEE. THIS WORK SHALL BE DONE AT THE CONTRACTOR'S EXPENSE.

- ALL WORK COMPLETED UNDER THIS CONTRACT SHALL BE GOVERNED BY AND SHALL CONFORM WITH CITY OF PORTLAND TECHNICAL AND DESIGN STANDARDS AND GUIDELINES, LATEST EDITION.
- THE CONTRACTOR SHALL ANTICIPATE THAT GROUNDWATER WILL BE ENCOUNTERED DURING CONSTRUCTION AND SHALL INCLUDE SUFFICIENT COSTS WITHIN THEIR BID TO PROVIDE DEWATERING AS NECESSARY. NO SEPARATE PAYMENT SHALL BE MADE TO THE CONTRACTOR FOR DEWATERING.
- EXISTING FACILITIES/STRUCTURES (I.E. TREES, POLES, LIGHT POLES, SIGNS) SHALL BE REMOVED AND PROTECTED DURING CONSTRUCTION. CITY RETAINS THE RIGHT TO KEEP ANY AND ALL REMOVED FACILITIES/STRUCTURES. CONTRACTOR SHALL DISPOSE OF UNWANTED/UNUSED FACILITIES/STRUCTURES OFF SITE IN CONFORMANCE WITH APPLICABLE FEDERAL, STATE, AND LOCATION REGULATIONS.
- ALL MATERIALS AND CONSTRUCTION METHODS SHALL CONFORM WITH APPLICABLE FEDERAL, STATE, AND CITY OF PORTLAND CODES AND SPECIFICATIONS.
- COMPACTION REQUIREMENTS:**

LOCATION	MINIMUM COMPACTION*
BELOW PAVED AREAS	95%
BELOW SEEDED AREAS	90%

- *ALL PERCENTAGES OF COMPACTION SHALL BE OF MAXIMUM DRY DENSITY AT THE OPTIMUM MOISTURE CONTENT AS DETERMINED AND CONTROLLED IN ACCORDANCE WITH ASTM D-1557.
- CLEAN AND/OR FLUSH SEDIMENT AND DEBRIS FROM ALL MANHOLES, CATCH BASINS AND ASSOCIATED PIPING AFTER THE WORK HAS BEEN COMPLETED.
 - STATIONING, PIPE LENGTHS, PIPE SLOPES AND PIPE INVERT CALCULATIONS ARE MEASURED ALONG THE PIPE CENTERLINE TO THE INSIDE WALL OF MANHOLE AND INSIDE WALL OF BOX CULVERT STRUCTURES.
 - ALL WORK WITHIN CITY STREET RIGHTS-OF-WAY SHALL BE PERFORMED IN ACCORDANCE WITH REQUIREMENTS OF THE CITY TRAFFIC ENGINEER. THE CONTRACTOR SHALL SUBMIT A PROPOSED TRAFFIC CONTROL PLAN TO THE TRAFFIC ENGINEER AT LEAST 7 DAYS BEFORE STARTING CONSTRUCTION IN ANY STREET. THE TRAFFIC CONTROL PLAN SHALL BE SUBJECT TO APPROVAL BY THE TRAFFIC ENGINEER, WHO MAY ATTACH SPECIAL CONDITIONS TO, OR REQUIRE MODIFICATIONS OF, THE TRAFFIC CONTROL PLAN. CONSTRUCTION SHALL NOT BEGIN UNTIL THE PLAN IS APPROVED BY THE CITY TRAFFIC ENGINEER.
 - THE CONTRACTOR SHALL PROVIDE, ERECT AND MAINTAIN ALL NECESSARY BARRIERS, FENCES, LIGHTS, WARNING SIGNS AND OTHER DEVICES NECESSARY TO SAFEGUARD TRAFFIC AND THE PUBLIC DURING WORKING AND NON-WORKING HOURS FOR THE DURATION OF THE PROJECT.
 - IT IS THE CONTRACTOR'S RESPONSIBILITY TO FAMILIARIZE THEMSELVES WITH THE EXISTING CONDITIONS PRIOR TO BIDDING.
 - ALL EXISTING GRANITE CATCH BASINS STONES, MANHOLE FRAMES AND COVERS TO BE REMOVED SHALL BE DELIVERED TO THE CITY STOCK YARD AS DIRECTED. NO SEPARATE PAYMENT WILL BE MADE FOR THIS WORK.
 - ON ALL "ALTER" AND "REMOVE" STRUCTURES, THE CONTRACTOR SHALL REMOVE ABANDONED PIPES OR PLUG WITH CONCRETE.
 - THE COST OF REMOVING THE EXISTING STRUCTURES OR PIPE SHALL BE INCIDENTAL TO THE COST OF THE REPLACEMENT STRUCTURE OR PIPE WHEN REPLACED IN THE SAME VICINITY, REFER TO SECTION 202.08.

UTILITY NOTES

- ALL SEWER SERVICES ARE APPROXIMATE AS SHOWN ON PLANS. THE CONTRACTOR SHALL FIELD VERIFY LOCATION AND ELEVATION OF EXISTING SERVICE LATERALS AND PROVIDE CONNECTIONS AS REQUIRED TO COMPLETE THE WORK.
- ALL GAS SERVICES ARE APPROXIMATE AS SHOWN ON PLANS. CONTRACTOR SHALL FIELD VERIFY LOCATION OF EXISTING SERVICES AND COORDINATE WITH PROPERTY OWNERS AND UNITL FOR MODIFICATIONS TO THE SERVICES.
- ALL WATER SERVICES ARE APPROXIMATE AS SHOWN ON PLANS. THE CONTRACTOR SHALL FIELD VERIFY LOCATION OF EXISTING WATER SERVICES AND SHALL RELOCATE EXISTING SERVICES AS REQUIRED TO COMPLETE THE WORK. THE CONTRACTOR SHALL COORDINATE THIS WORK WITH THE CITY OF PORTLAND, PORTLAND WATER DISTRICT AND PROPERTY OWNERS.
- THE PROPOSED WORK IS IN CLOSE PROXIMITY TO EXISTING UTILITIES. PROTECTION OF EXISTING UTILITIES DURING CONSTRUCTION SHALL BE INCIDENTAL TO THE PROJECT.
- TEST PITS, IF REQUIRED, SHALL BE COMPLETED WITHIN 1 WEEK AFTER MOBILIZING TO SITE OR AS SCHEDULED WITH THE CITY PRIOR TO ORDERING MATERIALS. THE CONTRACTOR SHALL PROMPTLY PROVIDE TEST PIT INFORMATION TO THE ENGINEER FOR REVIEW, AND SHALL NOTIFY THE ENGINEER OF ANY POTENTIAL UTILITY CROSSING CONFLICTS.
- THE CONTRACTOR SHALL CONTACT THE CITY OF PORTLAND ARBORIST AND ENGINEER PRIOR TO CUTTING ROOTS, TRIMMING BRANCHES OR DISTURBING TREES THAT ARE

NOT NOTED FOR REMOVAL ON THE PLANS.

TEMPORARY EROSION CONTROL MEASURES

- MAINTENANCE OF EROSION CONTROL MEASURES IS OF PARAMOUNT IMPORTANCE TO THE CITY. THE CONTRACTOR IS RESPONSIBLE FOR COMPLYING WITH ALL EROSION CONTROL MEASURES SHOWN ON THE PLANS. ADDITIONAL EROSION CONTROL MEASURES SHALL BE INSTALLED IF DEEMED NECESSARY BY ON-SITE INSPECTIONS OF THE CITY OR THEIR REPRESENTATIVES AT NO ADDITIONAL COST TO THE CITY.
- LAND DISTURBING ACTIVITIES SHALL BE ACCOMPLISHED IN A MANNER AND SEQUENCE THAT CAUSES THE LEAST PRACTICAL DISTURBANCE OF THE SITE.
- PRIOR TO BEGINNING ANY CONSTRUCTION ACTIVITIES, THE CONTRACTOR SHALL INSTALL EROSION CONTROL BMPs AS SHOWN OR NOTED ON THE PLANS.
- SILTATION FENCE SHALL BE INSTALLED DOWN GRADIENT OF ANY DISTURBED AREAS TO TRAP RUNOFF-BORNE SEDIMENTS UNTIL GRASS AREAS ARE REVEGETATED. THE SILT FENCE SHALL BE INSTALLED PER THE DETAILS PROVIDED ON THIS PLAN AND INSPECTED BEFORE AND IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. REPAIRS SHALL BE MADE IF THERE ARE ANY SIGNS OF EROSION OR SEDIMENTATION BELOW THE FENCE LINE. IF THERE ARE SIGNS OF UNDERCUTTING AT THE CENTER OR THE EDGES, OR IMPOUNDING OF LARGE VOLUMES OF WATER BEHIND THE FENCE, THE BARRIER SHALL BE REPLACED WITH A STONE CHECK DAM. INSPECTION, MAINTENANCE, AND REPAIR OF SILTATION FENCE SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- FOR WORK WHICH IS CONDUCTED BETWEEN SEPTEMBER 15TH AND APRIL 15TH OF ANY CALENDAR YEAR, ALL DISTURBED AREAS, SHALL BE COVERED WITH HAY MULCH OR EROSION CONTROL MIX, APPLIED AT TWICE THE NORMAL APPLICATION RATE AND ANCHORED WITH A FABRIC NETTING. THE TIME PERIOD FOR APPLYING MULCH SHALL BE LIMITED TO 7 DAYS FOR ALL AREAS.
- PUBLIC AND PRIVATE WAYS SHALL BE SWEEPED, AS NECESSARY, TO CONTROL MUD AND DUST.
- SILT FENCING WITH A MINIMUM STAKE SPACING OF 6 FEET SHOULD BE USED, UNLESS THE FENCE IS SUPPORTED BY WIRE FENCE REINFORCEMENT OF MINIMUM 14 GAUGE AND WITH A MAXIMUM MESH SPACING OF 6 INCHES, IN WHICH CASE STAKES MAY BE SPACED A MAXIMUM OF 10 FEET APART. THE BOTTOM OF THE FENCE SHALL BE EMBEDDED IN A SOIL TRENCH.
- WATER AND/OR CALCIUM CHLORIDE SHALL BE FURNISHED AND APPLIED IN ACCORDANCE WITH MAINE DOT SPECIFICATIONS - SECTION 637 - DUST CONTROL.
- LOAM AND SEED IS INTENDED TO SERVE AS THE PRIMARY PERMANENT REVEGETATIVE MEASURE FOR ALL DISTURBED AREAS NOT PROVIDED WITH OTHER EROSION CONTROL MEASURES, SUCH AS RIPRAP.

ABBREVIATIONS:

& AND	NR NO REFUSAL
ADA AMERICANS WITH DISABILITIES ACT	NTS NOT TO SCALE
AG ABOVE GROUND	OFF OFFSET
ALT ALTERNATE	OHE OVERHEAD ELECTRIC
AVE AVENUE	OH OVERHEAD
BIT BITUMINOUS	± PLUS OR MINUS
B/W BETWEEN	PLS PROFESSIONAL LAND SURVEYOR
CB CATCH BASIN	PT POINT
CMP CENTRAL MAINE POWER	PVC POLYVINYL CHLORIDE
CONC CONCRETE	RD ROAD
DI DUCTILE IRON	RCP REINFORCED CONCRETE PIPE
DIA DIAMETER	REINF REINFORCED
DMH DRAIN MANHOLE	REQREQUIRED
DTL DETAIL	ROW RIGHT-OF-WAY
DYCLDOUBLE YELLOW CENTERLINE	RT RIGHT
DWLLDASHED WHITE LANE LINE	S SLOPE/SOUTH
E EAST	SF SILT FENCE
EG EXISTING GRADE	SS SANITARY SEWER
EL/ELEV ELEVATION	SD STORM DRAIN
EOP EDGE OF PAVEMENT	SMH SEWER MANHOLE
EXIST EXISTING	SCH SCHEDULE
FF FINISH FLOOR	SL STOP LINE
FT FOOT/FEET	ST STREET
GS GAS SERVICE	STA STATION
GALVGALVANIZED	SWLLSOLID WHITE LANE LINE
GRAN GRANITE	TBM TEMPORARY BENCHMARK
GV GATE VALVE	TP TEST PIT
HDPEHIGH DENSITY POLYETHYLENE	TRM TURF REINFORCING MAT
HORIZ HORIZONTAL	TWC TIME WARNER CABLE
HYD HYDRANT	TYP TYPICAL
INV INVERT	UD UNDERDRAIN
IP IRON PIPE	UG UNDERGROUND
LF LINEAR FEET	UGC UNDERGROUND CABLE
LT LEFT	UGE UNDERGROUND ELECTRIC
MAX MAXIMUM	UGT UNDERGROUND TELEPHONE
MIN MINIMUM	VER VERIZON
MON MONUMENT	VERT VERTICAL
N NORTH	VIT VITRIFIED CLAY
NO NUMBER	W WEST
	W/ WITH
	WS WATER SERVICE

REFERENCES:

DD PROJECT NAME: N/A
 DRAWING NAME: 1343.24-GENERAL-AS BUILT
 FIELD BOOK USED: N/A

DESIGNED BY: R. GORRILL
 DRAWN BY: B. VANDAMMI
 CHECKED BY: W. HASKELL
 SCALE: AS NOTED
 DATE: 07/23/2009

FALL BROOK
 PHASE 3
 LEGEND AND NOTES

CITY OF PORTLAND, MAINE
 PUBLIC SERVICES DEPARTMENT
 ENGINEERING SECTION



AS-BUILT

DECEMBER 01, 2011
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GP Gorrill-Palmer Consulting Engineers, Inc.
Engineering Excellence Since 1998
 PO Box 1237 15 Shaker Road, Gray, ME 04039
 207-657-6910 FAX: 207-657-6912
 E-Mail: mail@gorrillpalmer.com



CONTRACTOR SHALL NOT IMPEDE ACCESS OR STORE EQUIPMENT/MATERIAL ON PRIVATE PROPERTY WITHOUT WRITTEN CONSENT FROM THE LAND OWNER.

WASHINGTON AVENUE

ALLEN AVENUE

CONSTRUCTION ACCESS

CONSTRUCTION ACCESS

CONSTRUCTION ACCESS

CONSTRUCTION ACCESS

PROJECT AREA

NORTHPORT BUSINESS PARK

OHIO STREET

LORING AVENUE

GERTRUDE AVENUE

MAINE AVENUE

REFERENCES:

DESIGNED BY: P. OSTROWSKI
 DRAWN BY: B. VANDAMM
 CHECKED BY: W. HASKELL
 AS NOTED: DATE: 01/23/2009

SEE COVER SHEET FOR SIGNATURE

FALL BROOK
 PHASE 3
 AERIAL OVERVIEW

CITY OF PORTLAND, MAINE
 PUBLIC SERVICES DEPARTMENT
 ENGINEERING SECTION

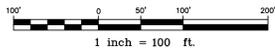


SHEET # 3 OF 18
 VAULT PLAN NUMBER

AS-BUILT

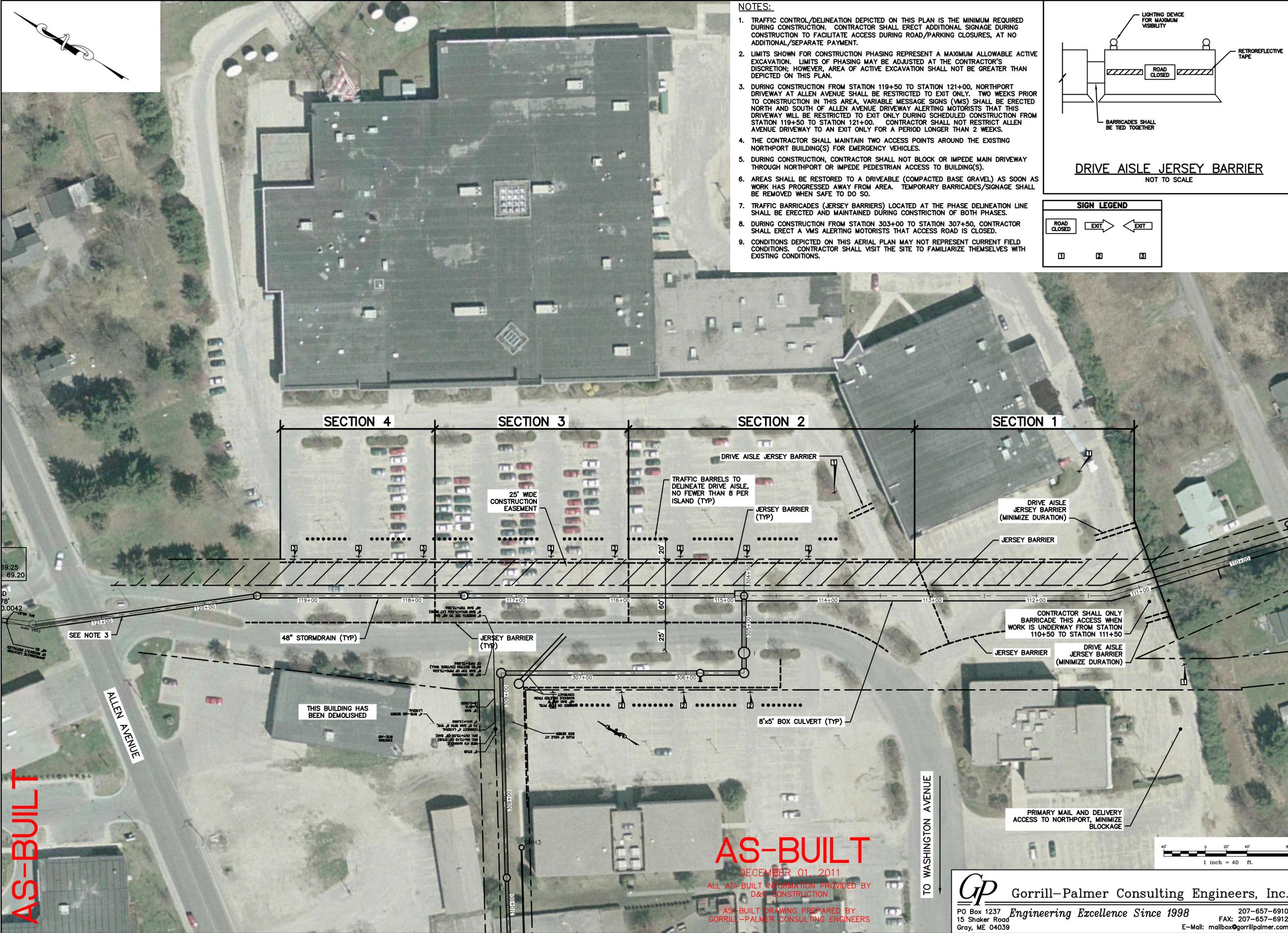
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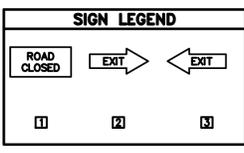
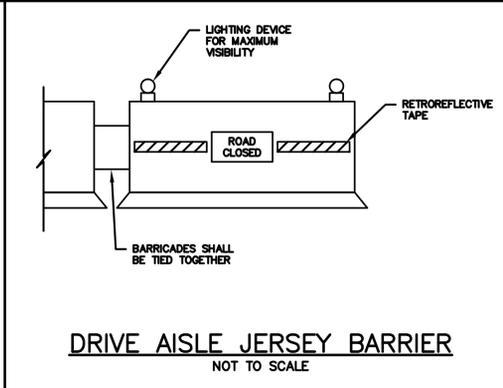


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 207-657-6910 FAX: 207-657-6912 E-Mail: mailbox@gorrillpalmer.com

LDD PROJECT NAME: N/A
 DRAWING NAME: 1343.24-Overview-AS-Built
 FIELD BOOK USED: N/A



- NOTES:**
1. TRAFFIC CONTROL/DELINEATION DEPICTED ON THIS PLAN IS THE MINIMUM REQUIRED DURING CONSTRUCTION. CONTRACTOR SHALL ERECT ADDITIONAL SIGNAGE DURING CONSTRUCTION TO FACILITATE ACCESS DURING ROAD/PARKING CLOSURES, AT NO ADDITIONAL/SEPARATE PAYMENT.
 2. LIMITS SHOWN FOR CONSTRUCTION PHASING REPRESENT A MAXIMUM ALLOWABLE ACTIVE EXCAVATION. LIMITS OF PHASING MAY BE ADJUSTED AT THE CONTRACTOR'S DISCRETION; HOWEVER, AREA OF ACTIVE EXCAVATION SHALL NOT BE GREATER THAN DEPICTED ON THIS PLAN.
 3. DURING CONSTRUCTION FROM STATION 119+50 TO STATION 121+00, NORTHPORT DRIVEWAY AT ALLEN AVENUE SHALL BE RESTRICTED TO EXIT ONLY. TWO WEEKS PRIOR TO CONSTRUCTION IN THIS AREA, VARIABLE MESSAGE SIGNS (VMS) SHALL BE ERECTED NORTH AND SOUTH OF ALLEN AVENUE DRIVEWAY ALERTING MOTORISTS THAT THIS DRIVEWAY WILL BE RESTRICTED TO EXIT ONLY DURING SCHEDULED CONSTRUCTION FROM STATION 119+50 TO STATION 121+00. CONTRACTOR SHALL NOT RESTRICT ALLEN AVENUE DRIVEWAY TO AN EXIT ONLY FOR A PERIOD LONGER THAN 2 WEEKS.
 4. THE CONTRACTOR SHALL MAINTAIN TWO ACCESS POINTS AROUND THE EXISTING NORTHPORT BUILDING(S) FOR EMERGENCY VEHICLES.
 5. DURING CONSTRUCTION, CONTRACTOR SHALL NOT BLOCK OR IMPEDE MAIN DRIVEWAY THROUGH NORTHPORT OR IMPEDE PEDESTRIAN ACCESS TO BUILDING(S).
 6. AREAS SHALL BE RESTORED TO A DRIVEABLE (COMPACTED BASE GRAVEL) AS SOON AS WORK HAS PROGRESSED AWAY FROM AREA. TEMPORARY BARRICADES/SIGNAGE SHALL BE REMOVED WHEN SAFE TO DO SO.
 7. TRAFFIC BARRICADES (JERSEY BARRIERS) LOCATED AT THE PHASE DELINEATION LINE SHALL BE ERECTED AND MAINTAINED DURING CONSTRUCTION OF BOTH PHASES.
 8. DURING CONSTRUCTION FROM STATION 303+00 TO STATION 307+50, CONTRACTOR SHALL ERECT A VMS ALERTING MOTORISTS THAT ACCESS ROAD IS CLOSED.
 9. CONDITIONS DEPICTED ON THIS AERIAL PLAN MAY NOT REPRESENT CURRENT FIELD CONDITIONS. CONTRACTOR SHALL VISIT THE SITE TO FAMILIARIZE THEMSELVES WITH EXISTING CONDITIONS.



DD PROJECT NAME: N/A
 DRAWING NAME: 1343.24-Phasing-AS-Built
 FIELD BOOK USED: N/A

DESIGNED BY: P. OSTROWSKI
 DRAWN BY: B. VANDAMM
 CHECKED BY: W. HASKELL
 SCALE: AS NOTED
 DATE: 11/19/2009

REFERENCES:
 FALL BROOK PHASE 3
 NORTHPORT TRAFFIC AND PARKING PLAN

CITY OF PORTLAND, MAINE
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 ENGINEERING SECTION



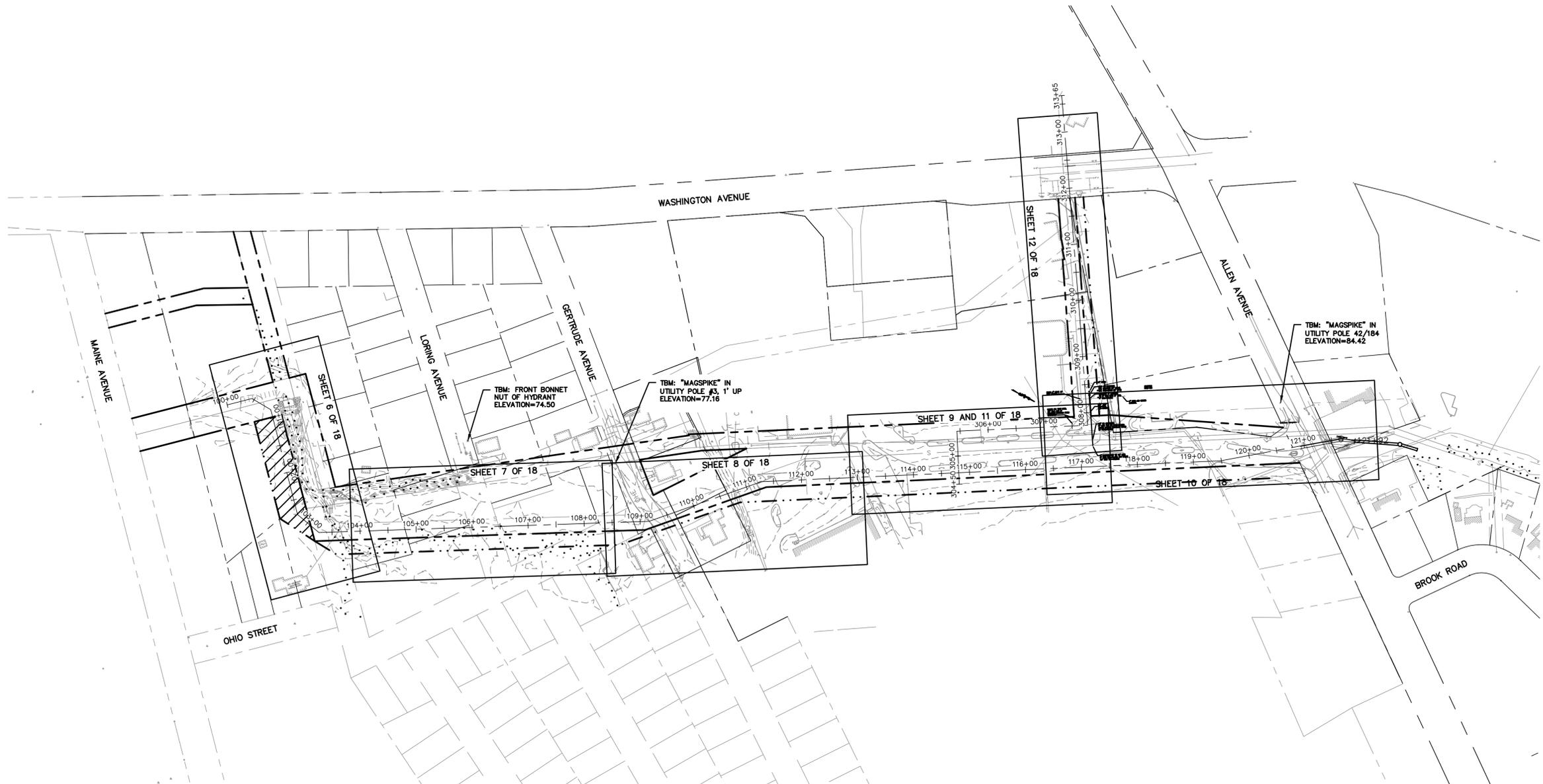
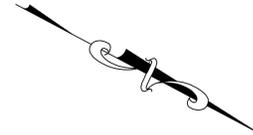
SHEET # 4 OF 18
 VAULT PLAN NUMBER VPLAN #

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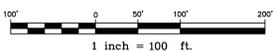
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15 Shaker Road
Gray, ME 04039
Engineering Excellence Since 1998
207-657-6910
FAX: 207-657-6912
E-Mail: mailbox@gorrillpalmer.com



CITY OF PORTLAND, MAINE
PUBLIC SERVICES DEPARTMENT
ENGINEERING SECTION

FALL BROOK
PHASE 3
OVERALL LAYOUT
PLAN

SEE COVER SHEET
FOR SIGNATURE

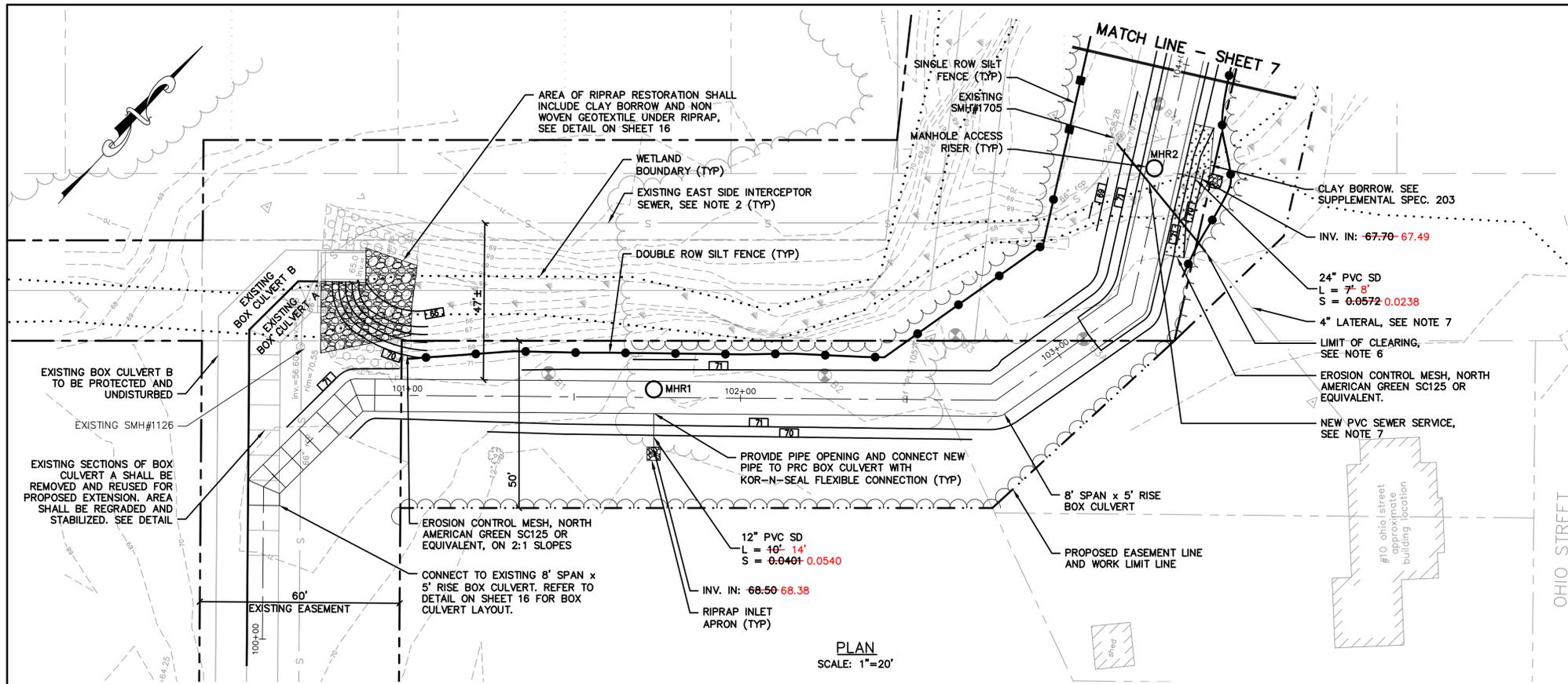
DESIGNED BY:	P. OSTROWSKI
DRAWN BY:	B. VANDAMM
CHECKED BY:	W. HASKELL
SCALE:	AS NOTED
DATE:	01/23/2009

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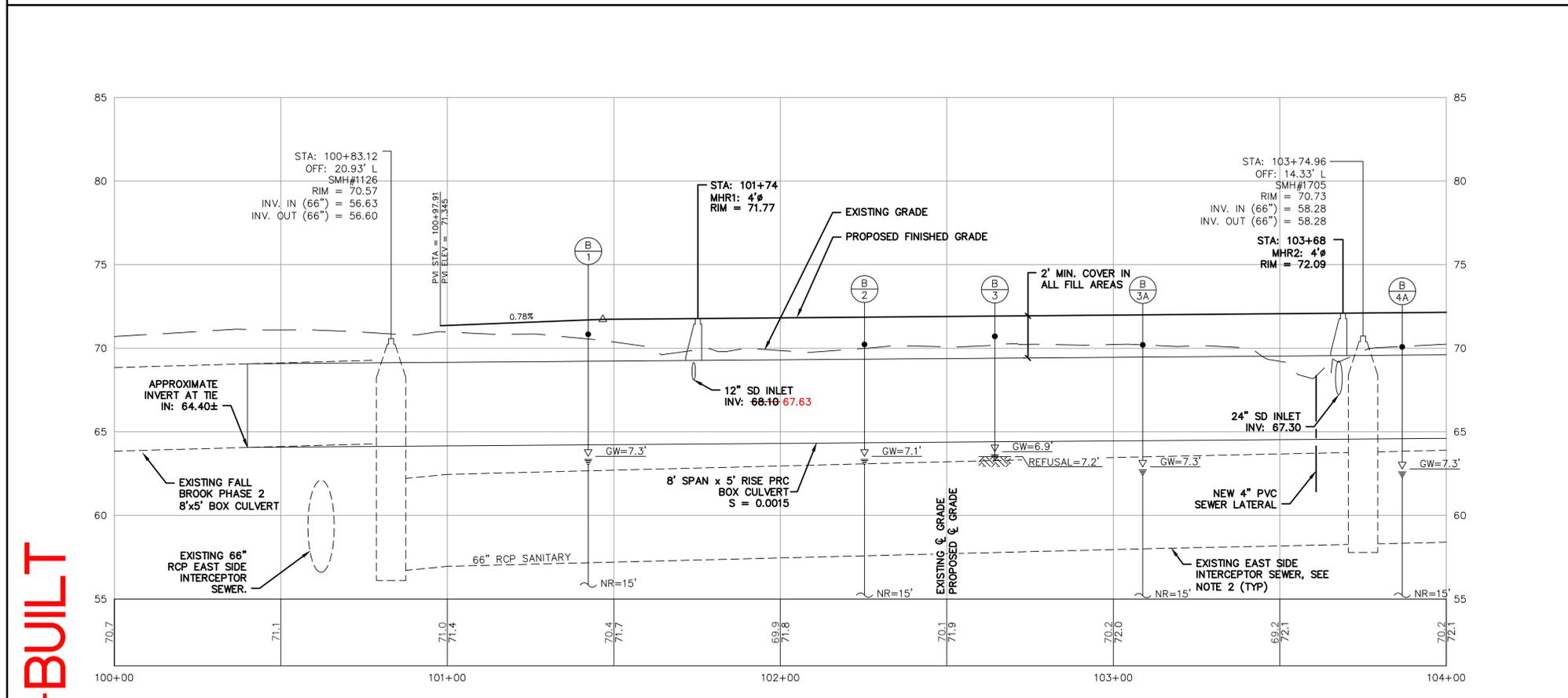
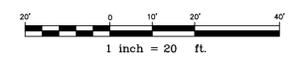
LDD PROJECT NAME:	N/A
DRAWING NAME:	1343.24-SF-Overall-AS B
FIELD BOOK USED:	N/A

SHEET #
5 OF 18

VAULT PLAN NUMBER



- NOTES:**
- EXISTING PROFILE GRADE IS CENTERED ON PROPOSED STORM DRAIN.
 - PROTECT EXISTING EAST SIDE INTERCEPTOR SEWER MANHOLE STRUCTURES AND PIPES.
 - REFER TO SHEETS 17 AND 18 OF 18 FOR EROSION CONTROL DETAILS AND NOTES.
 - CONSTRUCTION ACCESS SHALL BE VIA GERTRUDE AVENUE, LORING AVENUE AND NORTHPORT BUSINESS PARK. CONSTRUCTION ACCESS SHALL NOT BE ALLOWED VIA MAINE AVENUE.
 - CONTRACTOR IS CAUTIONED THAT EXISTING VEGETATION WITHIN CROSS COUNTRY CONSTRUCTION AREA CONSISTS OF MATURE (>12" DIAMETER) DECIDUOUS AND EVERGREEN TREES. NO SEPARATE/INDIVIDUAL PAYMENT WILL BE MADE FOR CLEARING WORK AREA. PAYMENT SHALL BE ON A PER ACRE BASIS.
 - CLEARING LIMITS SHALL NOT BE EXCEEDED WITHOUT CITY APPROVAL.
 - THE HOUSE OFF OHIO STREET CLOSEST TO EAST SIDE INTERCEPTOR HAS A SEWER SERVICE WHICH TIES INTO THE INTERCEPTOR SEWER. INSTALL A NEW PVC SEWER SERVICE ENCASED IN A STEEL SLEEVE (SCH 40) UNDER PROPOSED BOX CULVERT.



AS-BUILT

PROFILE
HORIZONTAL: 1"=20'
VERTICAL: 1"=4'

AS-BUILT

DECEMBER 01, 2011
ALL AS-BUILT INFORMATION PROVIDED BY D&C CONSTRUCTION

AS-BUILT DRAWING PREPARED BY GORRILL-PALMER CONSULTING ENGINEERS

GP Gorrill-Palmer Consulting Engineers, Inc.
 Engineering Excellence Since 1998
 PO Box 1237 15 Shaker Road Gray, ME 04039
 207-657-6910 207-657-6912
 E-Mail: mailbox@gorrillpalmer.com

REFERENCES:

DESIGNED BY: P. GORRILL
 DRAWN BY: B. VANDAMMI
 CHECKED BY: W. HASKELL
 SCALE: AS NOTED
 DATE: 01/23/2009

SEE COVER SHEET FOR SIGNATURE

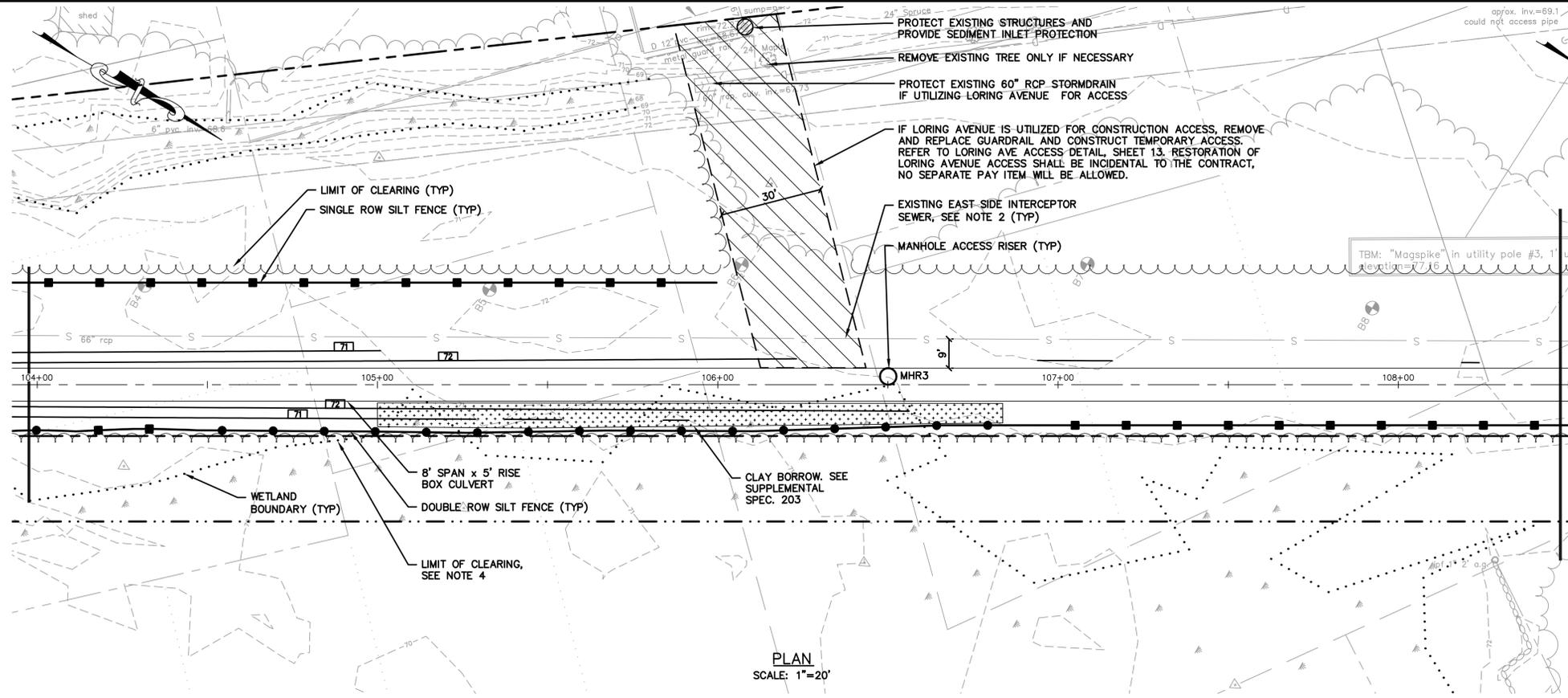
FALL BROOK PHASE 3
 PLAN AND PROFILE
 STATION 100+00 TO 104+00

CITY OF PORTLAND, MAINE
 PUBLIC SERVICES DEPARTMENT
 ENGINEERING SECTION

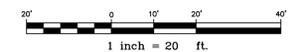
SHEET # 6 OF 18
 VAULT PLAN NUMBER

MATCH LINE - SHEET 6

MATCH LINE - SHEET 8



PLAN
SCALE: 1"=20'



NOTES:

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DATE:	01/23/2009

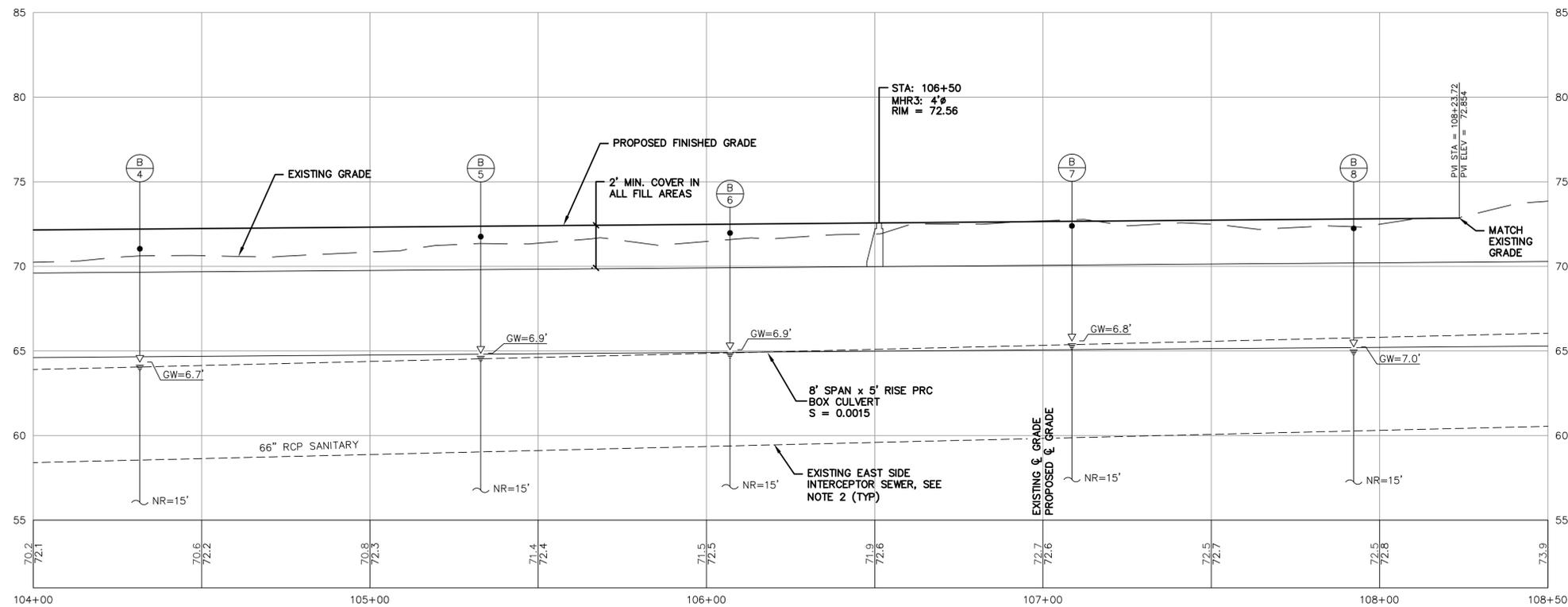
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FALL BROOK
PHASE 3
PLAN AND PROFILE
STATION 104+00 TO 108+50

CITY OF PORTLAND, MAINE
PUBLIC SERVICES DEPARTMENT
ENGINEERING SECTION



SHEET #
7 OF 18
VAULT PLAN NUMBER



PROFILE
HORIZONTAL: 1"=20'
VERTICAL: 1"=4'

AS-BUILT

DECEMBER 01, 2011
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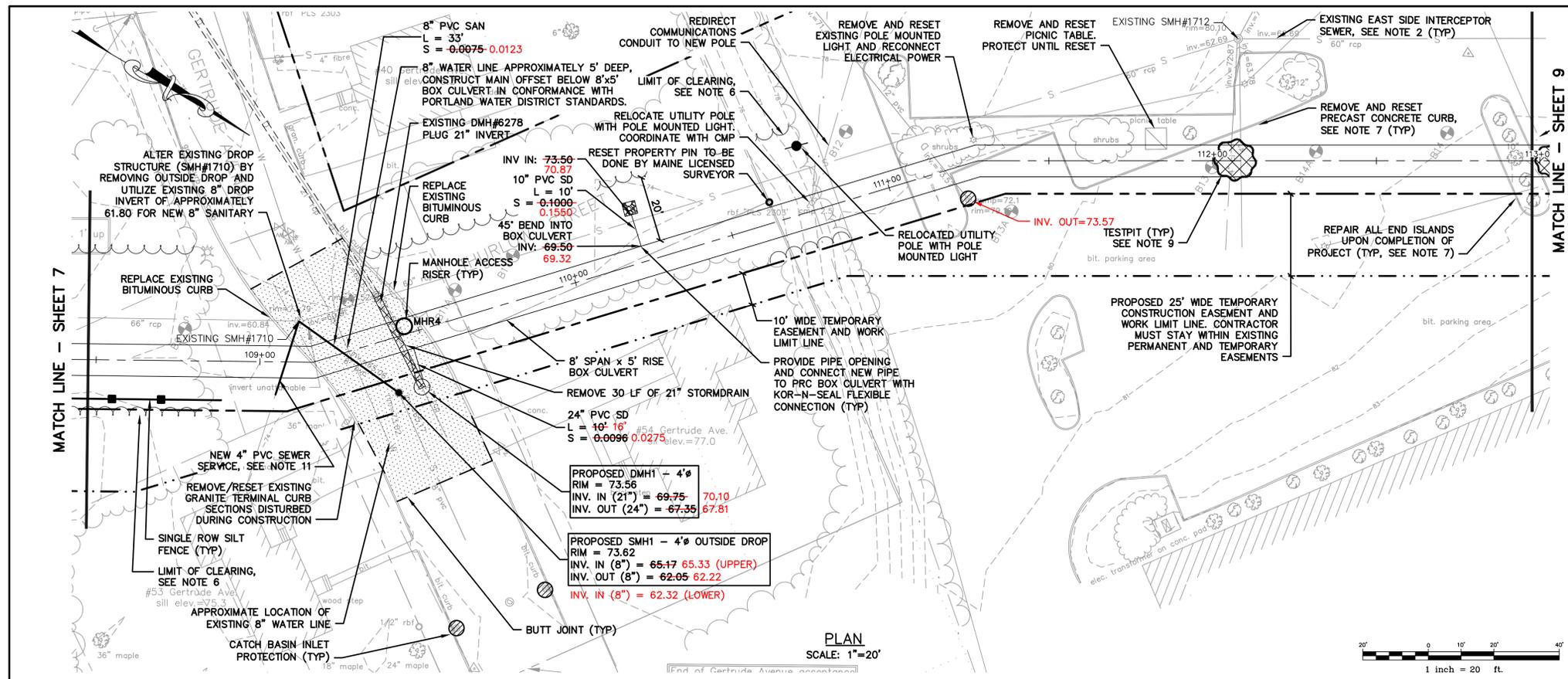
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Gray, ME 04039

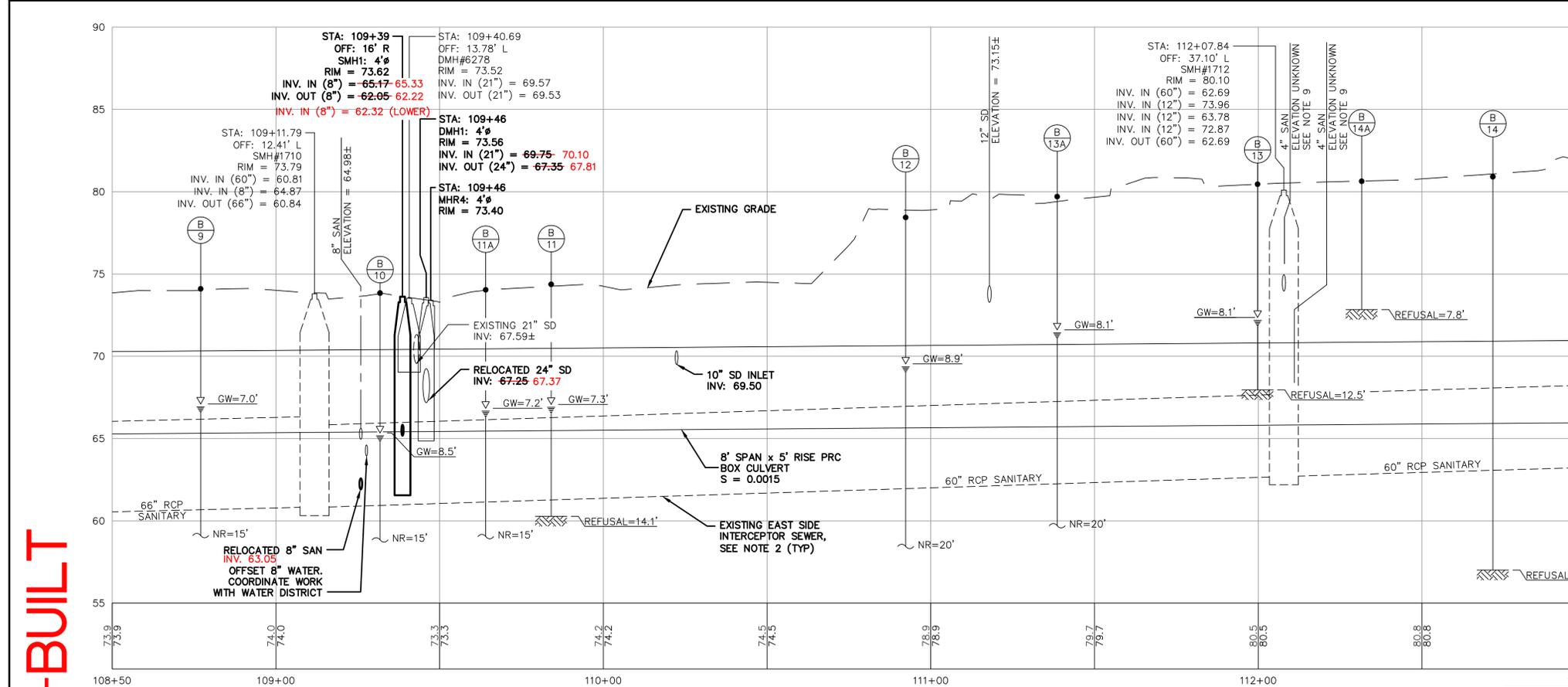
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FAX: 207-657-6912
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AS-BUILT



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 - * 603 - PIPE, CULVERTS AND STORM DRAINS
 - * 604 - MANHOLE, INLETS AND CATCH BASINS
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 - ELEVATION OF EXISTING 4" SANITARY SERVICES UNKNOWN, TEST PIT AREA TO DETERMINE EXACT LOCATION AND ELEVATION.
 - EXISTING UTILITIES WITHIN NORTHPORT BUSINESS PARK BASED ON PLAN TITLED "NORTH PORT REALTY TRUST, ALTA/ACSM LAND TITLE SURVEY" PREPARED BY H&EC JORDAN DATED JAN 18, 1996. CONTRACTOR IS CAUTIONED THAT ADDITIONAL UTILITIES MAY EXIST WHICH ARE NOT DEPICTED ON THESE PLANS.
 - INSTALL NEW PVC SEWER SERVICE ENCASED IN A STEEL SLEEVE (SCH 40) UNDER PROPOSED BOX CULVERT



AS-BUILT

AS-BUILT
 DECEMBER 01, 2011
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 GORRILL-PALMER CONSULTING ENGINEERS

LOD PROJECT NAME: N/A
 DRAWING NAME: 1343.24-Phase-AS-BUILT.d
 FIELD BOOK USED: N/A

RESOURCES:

DESIGNED BY: P. OSTROWSKI
 DRAWN BY: B. VANDAM
 CHECKED BY: W. HASKELL
 SCALE: AS NOTED
 DATE: 01/23/2009

SEE COVER SHEET FOR SIGNATURE

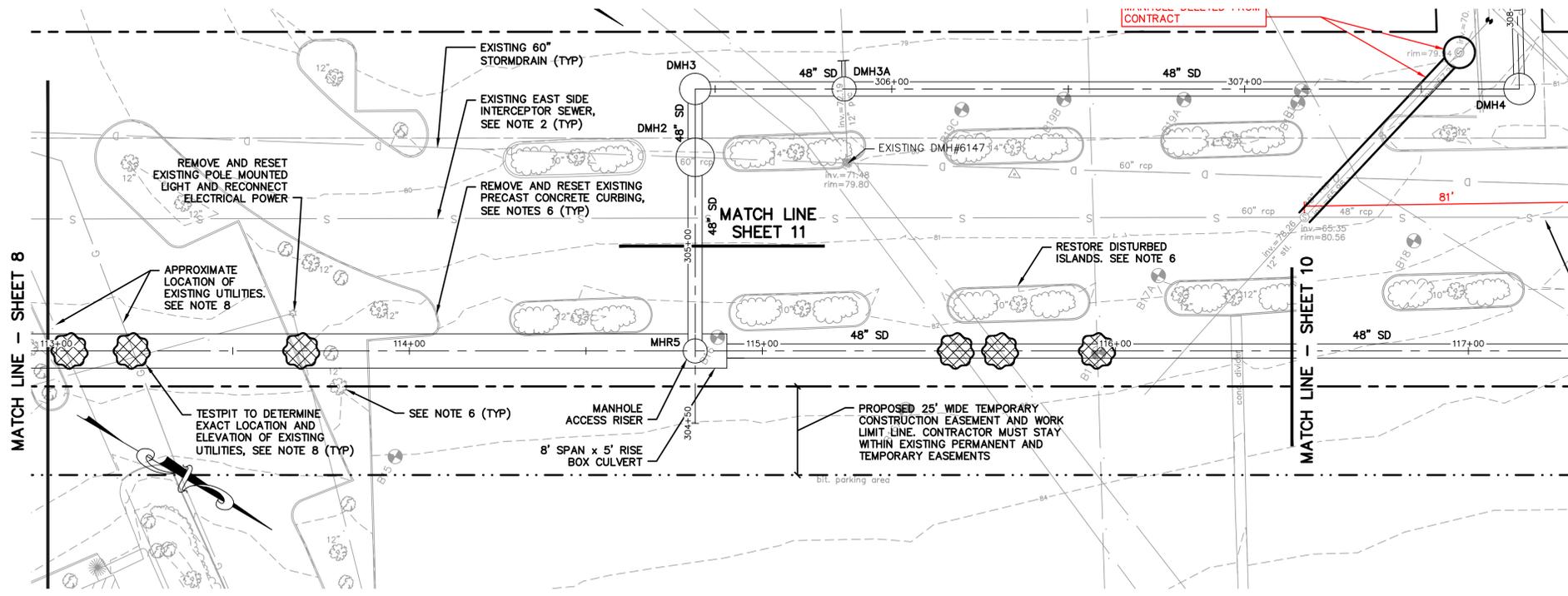
FALL BROOK
PHASE 3
PLAN AND PROFILE
 STATION 108+50 TO 113+00

CITY OF PORTLAND, MAINE
PUBLIC SERVICES DEPARTMENT
ENGINEERING SECTION

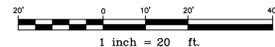
AS-BUILT
 DECEMBER 01, 2011
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SHEET # 8 OF 18
 VAULT PLAN NUMBER



PLAN
SCALE: 1"=20'



NOTES:

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- PROTECT EXISTING EAST SIDE INTERCEPTOR SEWER STRUCTURES AND PIPES.
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 - * 603 - PIPE, CULVERTS AND STORM DRAINS
 - * 604 - MANHOLE, INLETS AND CATCH BASINS
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REFERENCES:

DESIGNED BY:	P. OSTROWSKI
DRAWN BY:	B. VANDAMM
CHECKED BY:	W. HASKELL
SCALE:	AS NOTED
DATE:	01/25/2009

SEE COVER SHEET FOR SIGNATURE

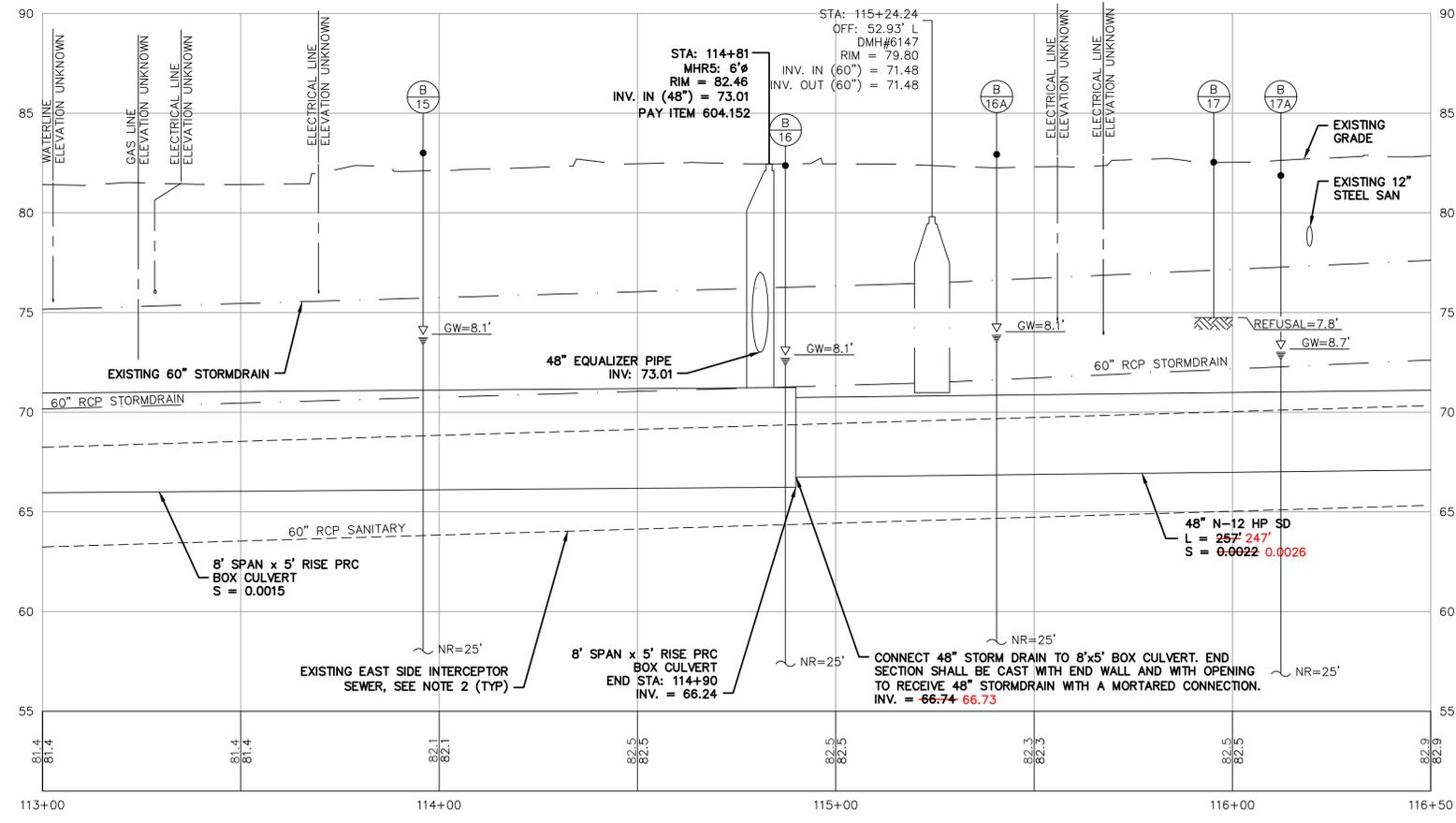
FALL BROOK
PHASE 3
PLAN AND PROFILE
STATION 113+00 TO 116+50

CITY OF PORTLAND, MAINE
PUBLIC SERVICES DEPARTMENT
ENGINEERING SECTION



SHEET #
9 OF 18

VAULT PLAN NUMBER



PROFILE
HORIZONTAL: 1"=20'
VERTICAL: 1"=4'

AS-BUILT

DECEMBER 01, 2011
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AS-BUILT DRAWING PREPARED BY
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15 Shaker Road Gray, ME 04039 FAX: 207-657-6912
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AS-BUILT

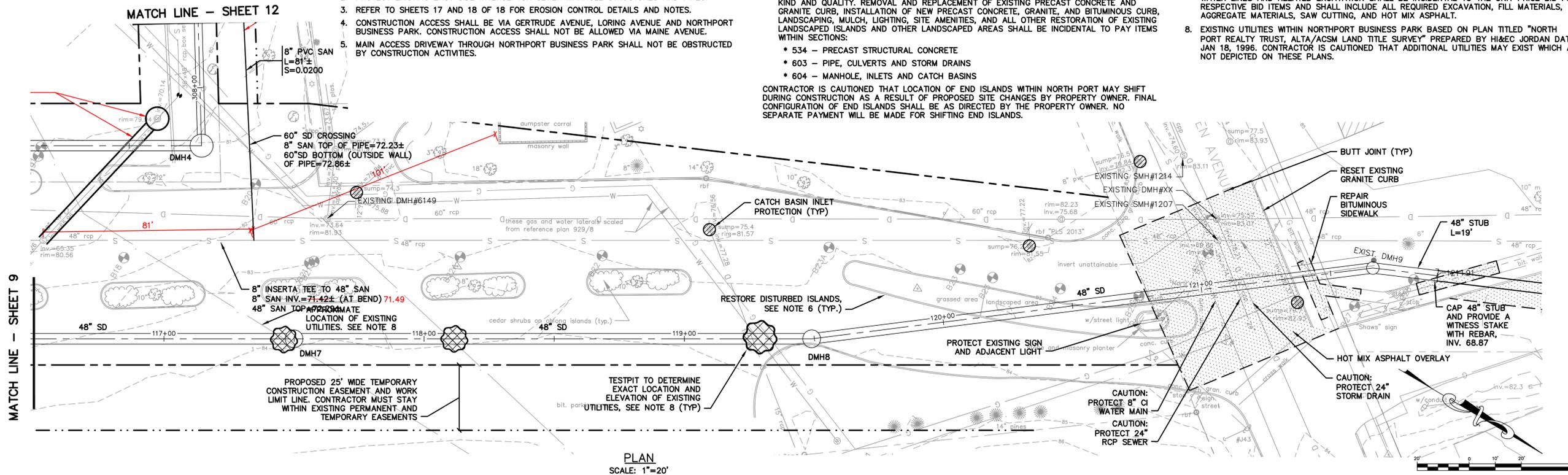
NOTES:

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MATCH LINE - SHEET 9

MATCH LINE - SHEET 12

LDD PROJECT NAME: N/A

DRAWING NAME: 1343.24-Phase-AS BUILT

FIELD BOOK USED: N/A

REFERENCES:

DESIGNED BY:	P. OSTROWSKI
DRAWN BY:	B. VANDAMM
CHECKED BY:	W. HASKELL
SCALE:	AS NOTED
DATE:	01/23/2009

SEE COVER SHEET FOR SIGNATURE

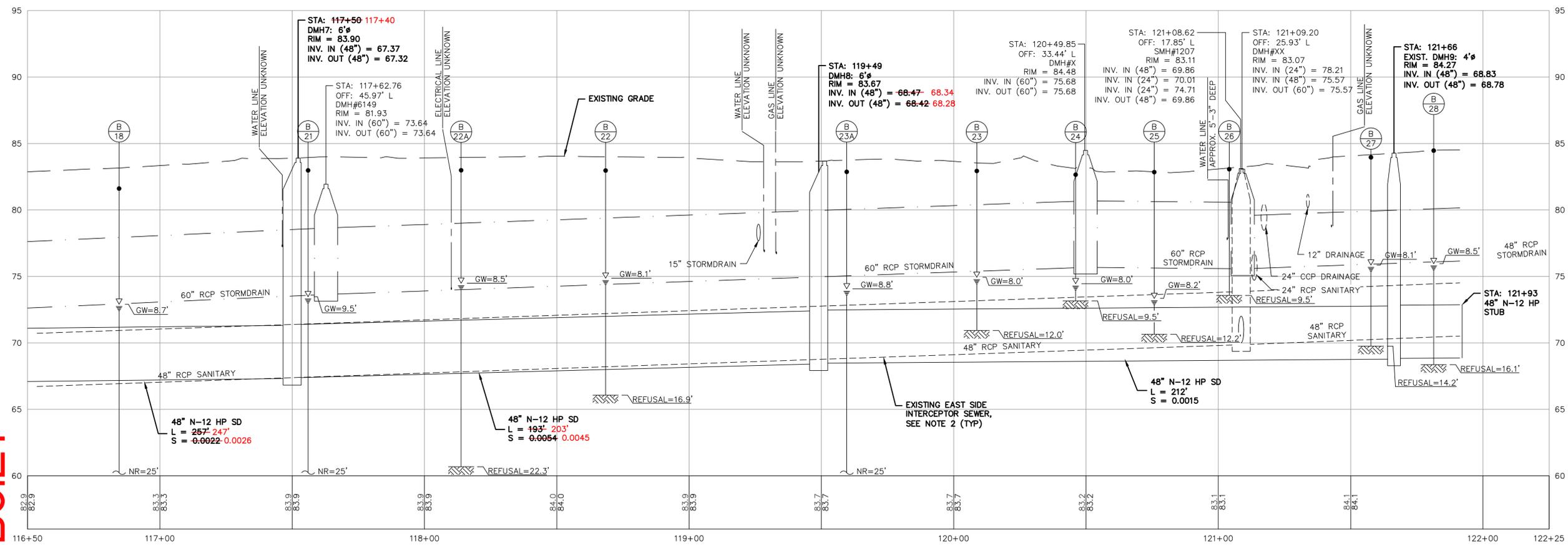
FALL BROOK
PHASE 3
PLAN AND PROFILE
STATION 116+50 TO 122+00

CITY OF PORTLAND, MAINE
PUBLIC SERVICES DEPARTMENT
ENGINEERING SECTION



SHEET # 10 OF 18
VAULT PLAN NUMBER

AS-BUILT

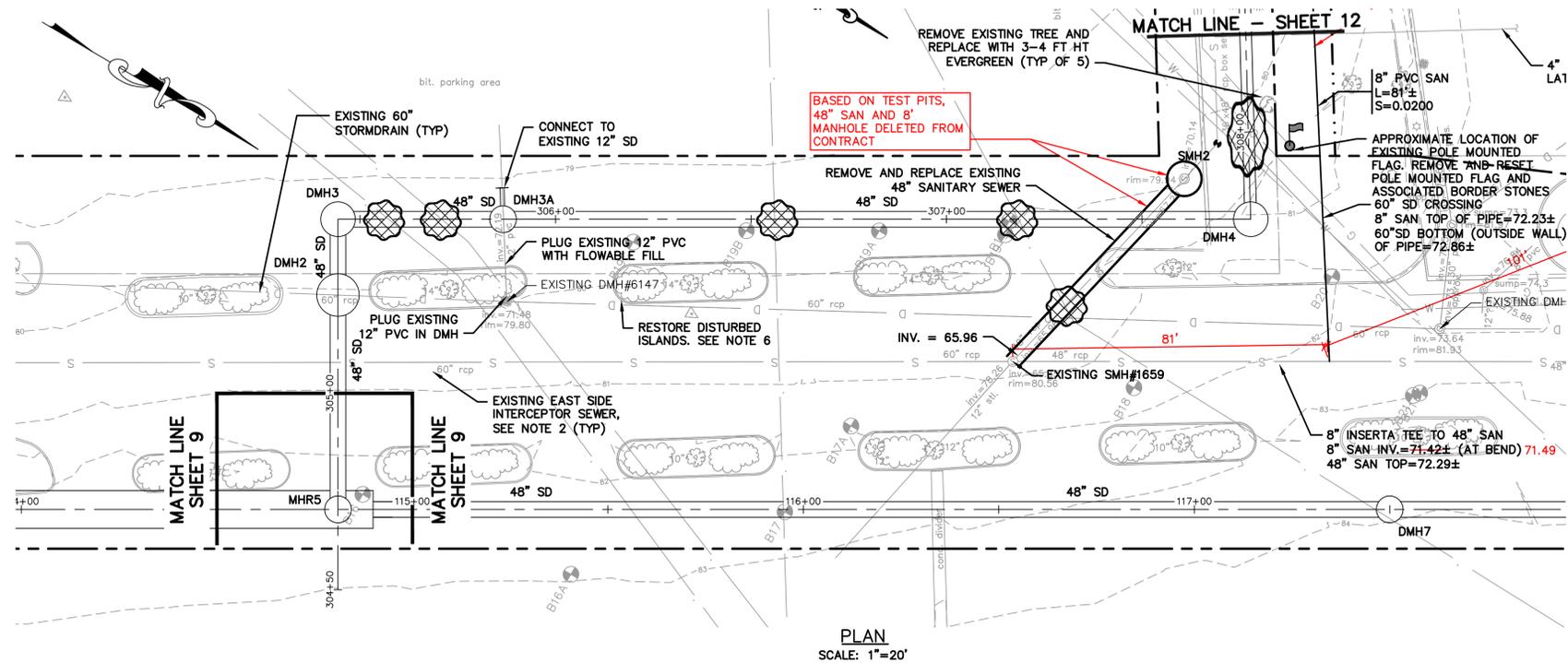


AS-BUILT
DECEMBER 01, 2011

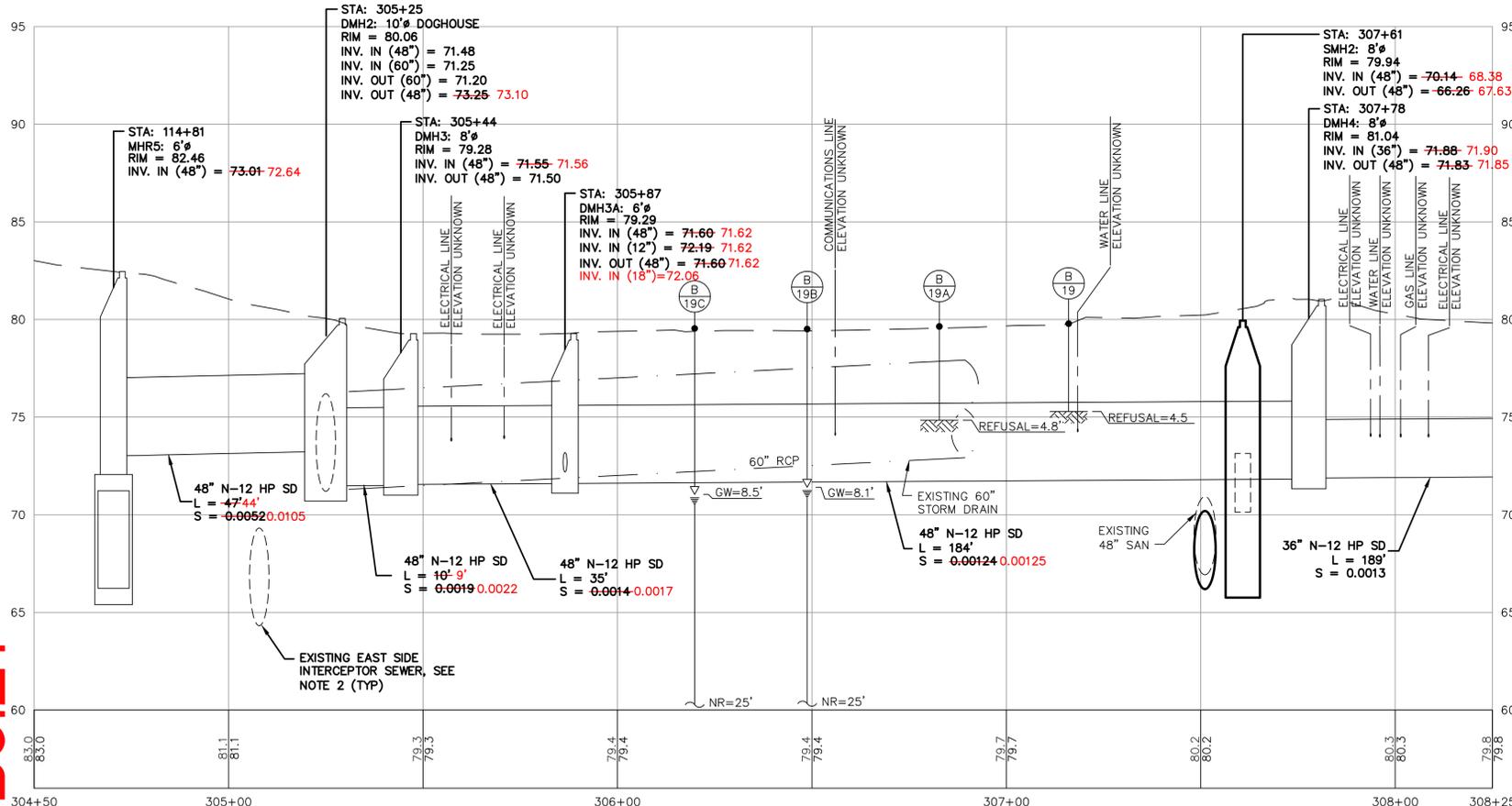
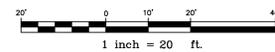
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AS-BUILT



PLAN
SCALE: 1"=20'



PROFILE
HORIZONTAL: 1"=20'
VERTICAL: 1"=4'

NOTES:

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REFERENCES:

DESIGNED BY:	P. OSTROWSKI
DRAWN BY:	B. VANDAM
CHECKED BY:	W. HASKELL
SCALE:	AS NOTED
DATE:	01/23/2009

SEE COVER SHEET FOR SIGNATURE

FALL BROOK
PHASE 3
PLAN AND PROFILE
STATION 304+50 TO 308+25

CITY OF PORTLAND, MAINE
PUBLIC SERVICES DEPARTMENT
ENGINEERING SECTION



SHEET #
11 OF 18
VAULT PLAN NUMBER

AS-BUILT

DECEMBER 01, 2011

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AS-BUILT DRAWING PREPARED BY
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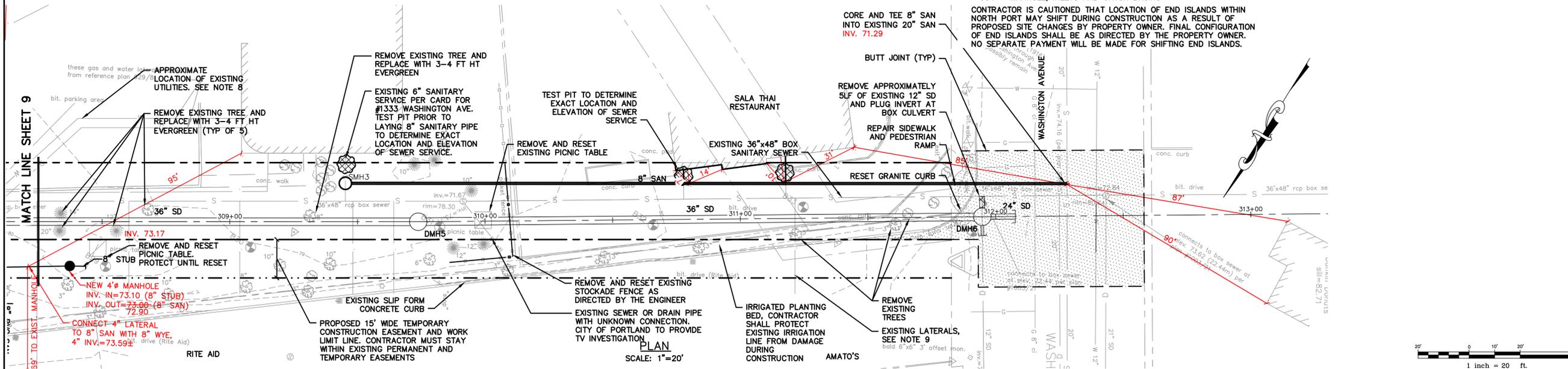
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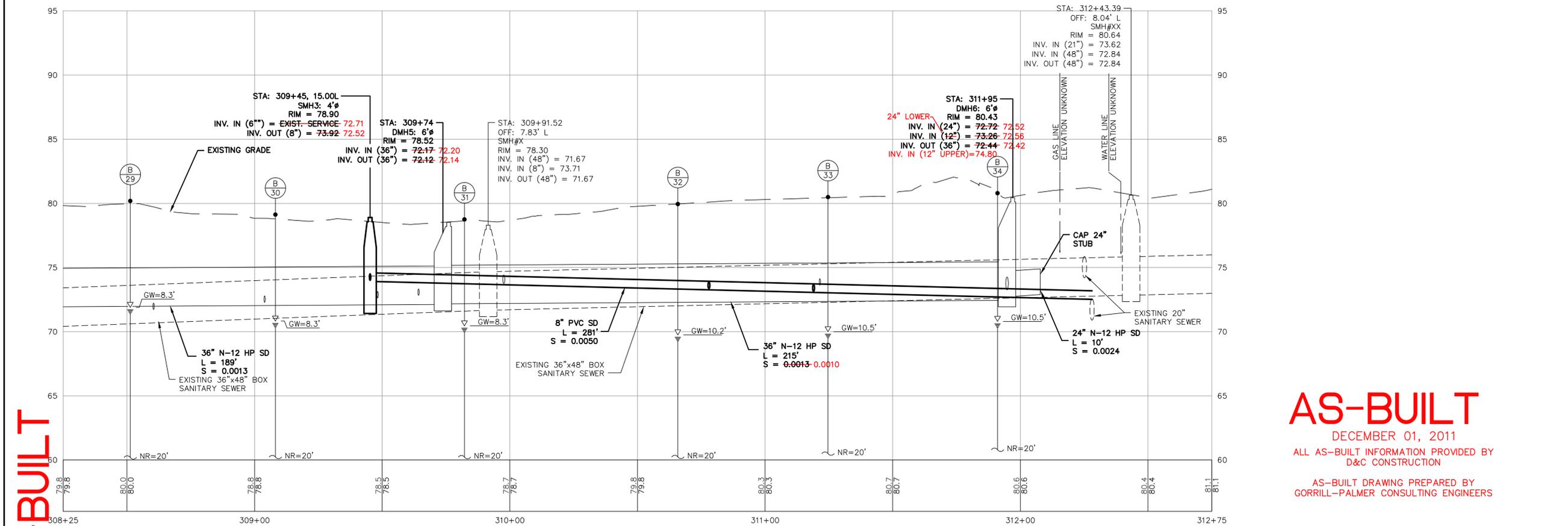
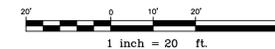
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 - * 603 - PIPE, CULVERTS AND STORM DRAINS
 - * 604 - MANHOLE, INLETS AND CATCH BASINS

- REPLACEMENT OF PAVED SURFACES DISTURBED BY INSTALLATION OF BOX CULVERT AND PIPES SHALL BE INCIDENTAL TO THE UNIT PRICE BID FOR BOX CULVERT AND PIPE AND SHALL INCLUDE ALL REQUIRED EXCAVATION, FILL MATERIALS, AGGREGATE MATERIALS, SAW CUTTING, AND HOT MIX ASPHALT.
- EXISTING UTILITIES WITHIN NORTHPORT BUSINESS PARK BASED ON PLAN TITLED "NORTH PORT REALTY TRUST, ALTA/ACSM LAND TITLE SURVEY" PREPARED BY H&C JORDAN DATED JAN 18, 1996. CONTRACTOR IS CAUTIONED THAT ADDITIONAL UTILITIES MAY EXIST WHICH ARE NOT DEPICTED ON THESE PLANS.
- EXISTING LATERALS OBSERVED DURING A TV INSPECTION CONDUCTED BY THE CITY OF PORTLAND, LOCATIONS ARE APPROXIMATE. CONDITION OF LATERALS (LIVE, CAPPED, ABANDONED) UNKNOWN. CONTRACTOR TO TEST PIT AREA AROUND LATERALS TO DETERMINE LOCATION, SIZE, ELEVATION AND CONDITION OF LATERALS.

CONTRACTOR IS CAUTIONED THAT LOCATION OF END ISLANDS WITHIN NORTH PORT MAY SHIFT DURING CONSTRUCTION AS A RESULT OF PROPOSED SITE CHANGES BY PROPERTY OWNER. FINAL CONFIGURATION OF END ISLANDS SHALL BE AS DIRECTED BY THE PROPERTY OWNER. NO SEPARATE PAYMENT WILL BE MADE FOR SHIFTING END ISLANDS.



SCALE: 1"=20'



PROFILE
HORIZONTAL: 1"=20'
VERTICAL: 1"=4'

AS-BUILT

AS-BUILT

DECEMBER 01, 2011
ALL AS-BUILT INFORMATION PROVIDED BY D&C CONSTRUCTION
AS-BUILT DRAWING PREPARED BY GORRILL-PALMER CONSULTING ENGINEERS

GP Gorrill-Palmer Consulting Engineers, Inc.
Engineering Excellence Since 1998
PO Box 1237 15 Shaker Road Gray, ME 04039
207-657-6910 FAX: 207-657-6912 E-Mail: mailbox@gorrillpalmer.com

REFERENCES:

DESIGNED BY:	C. OSTROWSKI
DRAWN BY:	B. VANDAMM
CHECKED BY:	M. HASKELL
SCALE:	AS NOTED
DATE:	01/23/2009

SEE COVER SHEET FOR SIGNATURE

FALL BROOK
PHASE 3
PLAN AND PROFILE
STATION 308+25 TO 312+15

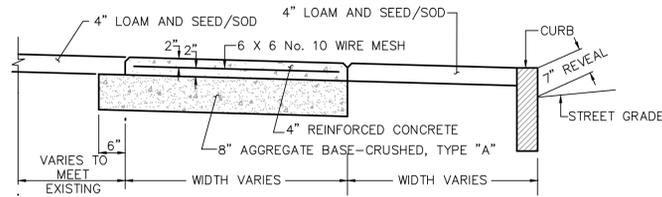
CITY OF PORTLAND, MAINE
PUBLIC SERVICES DEPARTMENT
ENGINEERING SECTION

SHEET # 12 OF 18
VAULT PLAN NUMBER

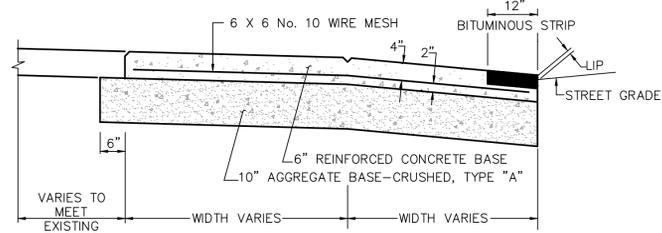
LDD PROJECT NAME: N/A
DRAWING NAME: 1343.24-Phase-AS BUILT
FIELD BOOK USED: N/A

NOTE:

- CURB RAMP LENGTHS ARE BASED ON SEVEN (7) INCH CURB REVEAL HEIGHT AND NO RUNNING SLOPE. RAMP LENGTHS SHALL BE ADJUSTED AS NECESSARY TO ACCOMMODATE VARYING CURB REVEAL HEIGHTS AND TO MATCH RUNNING SLOPES OF ADJACENT ROADWAY AND SIDEWALK SLOPES TO MAINTAIN A RAMP THAT DOES NOT EXCEED THE MAXIMUM RAMP SLOPE OF 1:12.
- DETECTABLE WARNINGS SHALL CONSIST OF RAISED TRUNCATED DOMES AND SHALL HAVE A BASE DIAMETER OF 0.9 INCHES (23 mm) MINIMUM AND 1.4 INCHES (36 mm) MAXIMUM; A TOP DIAMETER OF 50 PERCENT OF THE BASE DIAMETER MINIMUM TO 65 PERCENT OF THE BASE DIAMETER MAXIMUM AND A HEIGHT OF 0.2 INCHES (5.1 mm), A CENTER-TO-CENTER SPACING OF 1.6 INCHES (41mm) MINIMUM AND 2.4 INCHES (61mm) MAXIMUM; AND A BASE-TO-BASE SPACING OF 0.65 INCHES (17mm) MINIMUM, MEASURED BETWEEN THE MOST ADJACENT DOMES ON A SQUARE GRID.
- DETECTABLE WARNINGS SHALL CONTRAST VISUALLY WITH ADJOINING SURFACES, EITHER LIGHT-ON-DARK, OR DARK-ON-LIGHT. THE MATERIAL USED TO PROVIDE CONTRAST SHALL BE AN INTEGRAL PART OF THE WALKING SURFACE. DETECTABLE WARNINGS USED ON INTERIOR SURFACES SHALL DIFFER FROM ADJOINING WALKING SURFACES IN RESILIENCY OR SOUND-ON-CANE CONTACT.
- ALL ACCESSIBLE ROUTE SIDEWALKS INTERSECTING ROADWAYS, DRIVEWAYS, OR OTHER VEHICULAR CROSSINGS REQUIRE DETECTABLE WARNINGS. DETECTABLE WARNING ZONES SHALL BE INSTALLED SIX (6) INCHES (OR THE HORIZONTAL THICKNESS OF THE ADJACENT CURB) FROM THE FLOW LINE OF THE CURB, EXTEND INTO THE SIDEWALK FOR A 24" DEPTH, AND COVER THE COMPLETE WIDTH OF THE SIDEWALK OR RAMP AREA. DETECTABLE WARNING ZONES SHALL CONFORM TO THE SLOPE REQUIREMENTS OF THE RAMP, LANDING, OR ACCESSIBLE ROUTE AS DEFINED IN THE SPECIFIED DETAIL. DETECTABLE WARNINGS SHALL NOT BE INSTALLED IN FLARED SIDES, IF THE RAMP INCLUDES FLARED SIDES.
- ALL LANDING AREAS SHALL BE 6 FEET WIDE BY 6 FEET LONG (MINIMUM DIMENSIONS). THE SLOPE OF THE LANDING AREA SHALL NOT EXCEED A 1:48 IN ANY DIRECTION.
- ALL ACCESSIBLE ROUTE SLOPES ADJOINING THE LANDING AREA, EXCLUDING THE CURB RAMP, SHALL NOT EXCEED A SLOPE OF 1:20 UNLESS OTHERWISE NOTED.



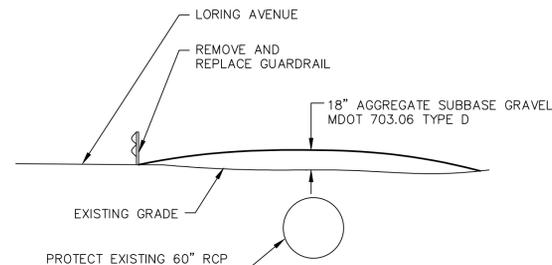
SECTION AT SIDEWALK



SECTION AT DRIVEWAY

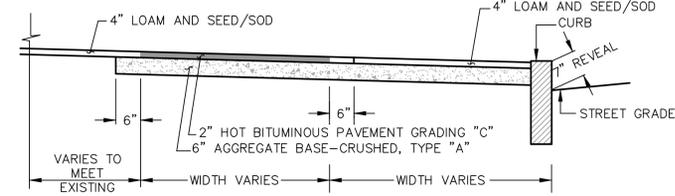
CONCRETE SIDEWALK AND DRIVEWAY CONSTRUCTION

NOT TO SCALE

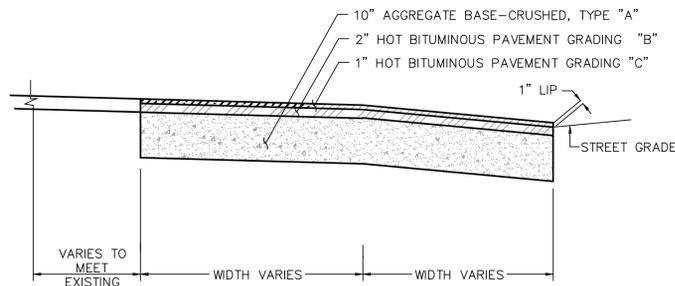


LORING AVENUE TEMPORARY ACCESS

NOT TO SCALE



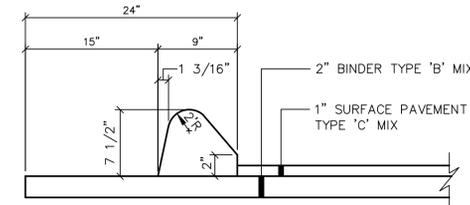
SECTION AT SIDEWALK



SECTION AT DRIVEWAY

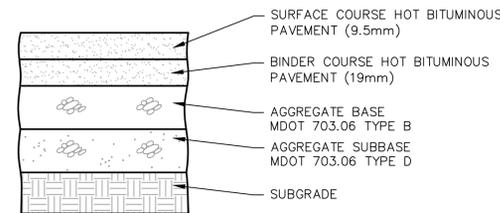
BITUMINOUS SIDEWALK AND DRIVEWAY CONSTRUCTION

NOT TO SCALE



TYPE 3A CURB DETAIL

NOT TO SCALE



NOTE: COMPACT SUBGRADE TO 95% MAXIMUM DRY DENSITY IN ACCORDANCE WITH ASTM D-1557

THICKNESS OF LAYER

PRINCIPAL ARTERIAL*	RESIDENTIAL STREET	LAYERS
2"	1 1/2"	HOT MIX ASPHALT 9.5mm
3"	2"	HOT MIX ASPHALT 19mm
3"	3"	AGGREGATE BASE GRAVEL MDOT 703.06 TYPE B
18"	15"	AGGREGATE SUBBASE GRAVEL MDOT 703.06 TYPE D

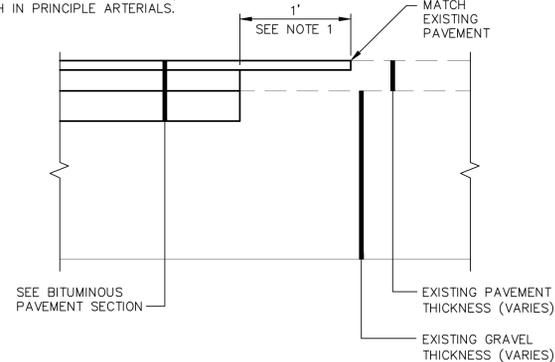
* WASHINGTON AVENUE

BITUMINOUS PAVEMENT SECTION

NOT TO SCALE

NOTE:

- GRIND EXISTING PAVEMENT, TO 1 1/2" DEPTH IN RESIDENTIAL STREETS, AND 2" DEPTH IN PRINCIPLE ARTERIALS.



PAVEMENT BUTT JOINT DETAIL

NOT TO SCALE

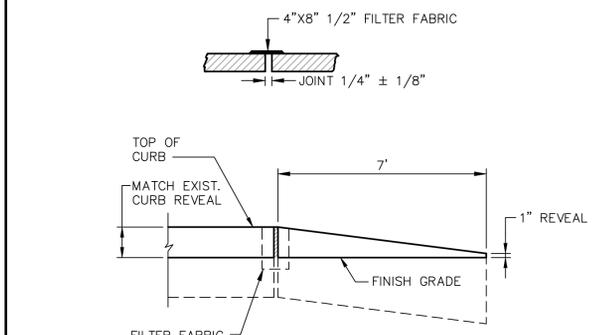
ALL AS-BUILT INFORMATION PROVIDED BY D&C CONSTRUCTION

AS-BUILT DRAWING PREPARED BY GORRILL-PALMER CONSULTING ENGINEERS



Gorrill-Palmer Consulting Engineers, Inc.

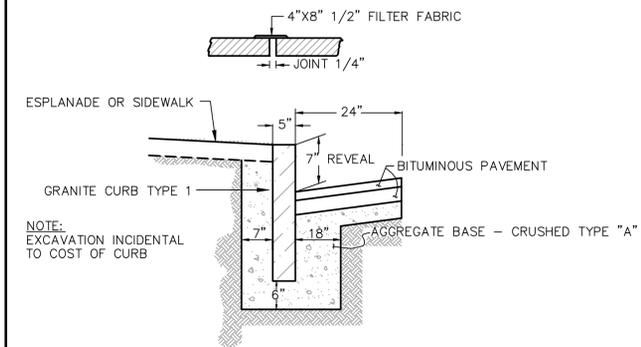
PO Box 1237, Engineering Excellence Since 1998, 207-657-6910, 15 Shaker Road, Gray, ME 04039, FAX: 207-657-6912, E-Mail: mailbox@gorrillpalmer.com



TERMINAL CURB

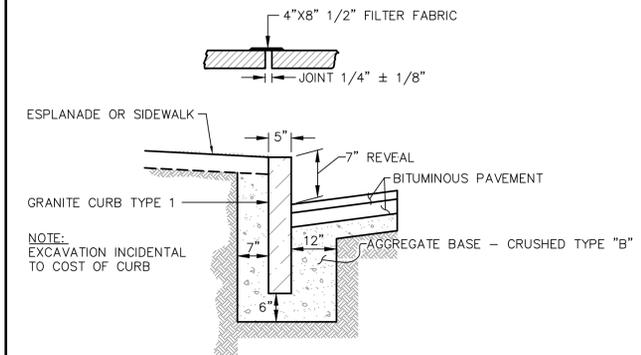
NOT TO SCALE

AS-BUILT
DECEMBER 01, 2011



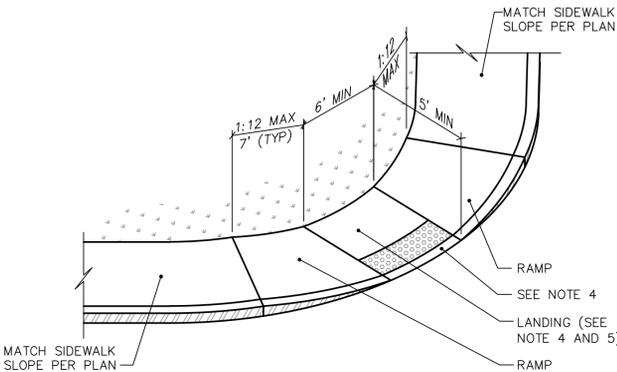
CURB REPLACEMENT DETAIL

NOT TO SCALE



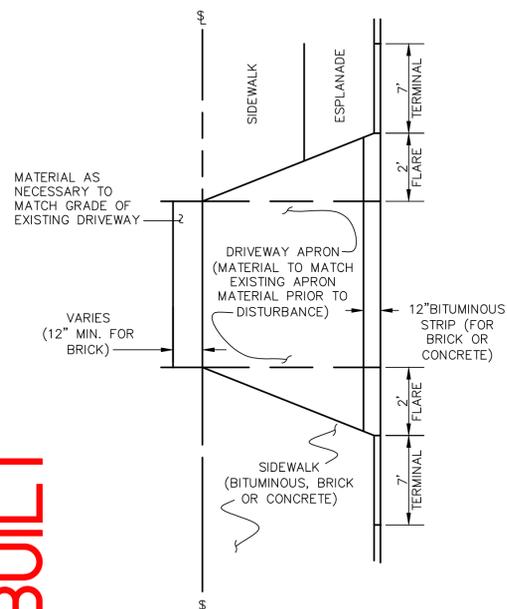
CURB INSTALLATION

NOT TO SCALE



BARRIER FREE RAMP-OFFSITE

NOT TO SCALE



SIDEWALK AND DRIVEWAY CONSTRUCTION

NOT TO SCALE

AS-BUILT

DD PROJECT NAME: N/A
DRAWING NAME: 1343.24-DET-AS BUILT-#4
FIELD BOOK USED: N/A

REFERENCES:

DESIGNED BY: P. OSTROWSKI
DRAWN BY: B. VANDAMM
CHECKED BY: W. HASKELL
SCALE: AS NOTED
DATE: 07/25/2009

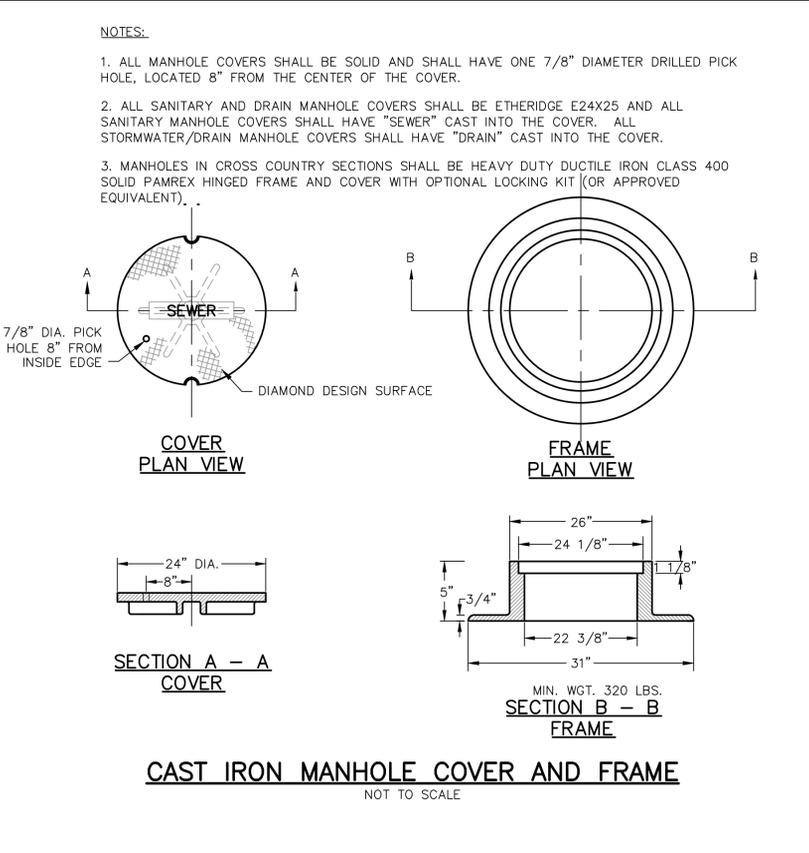
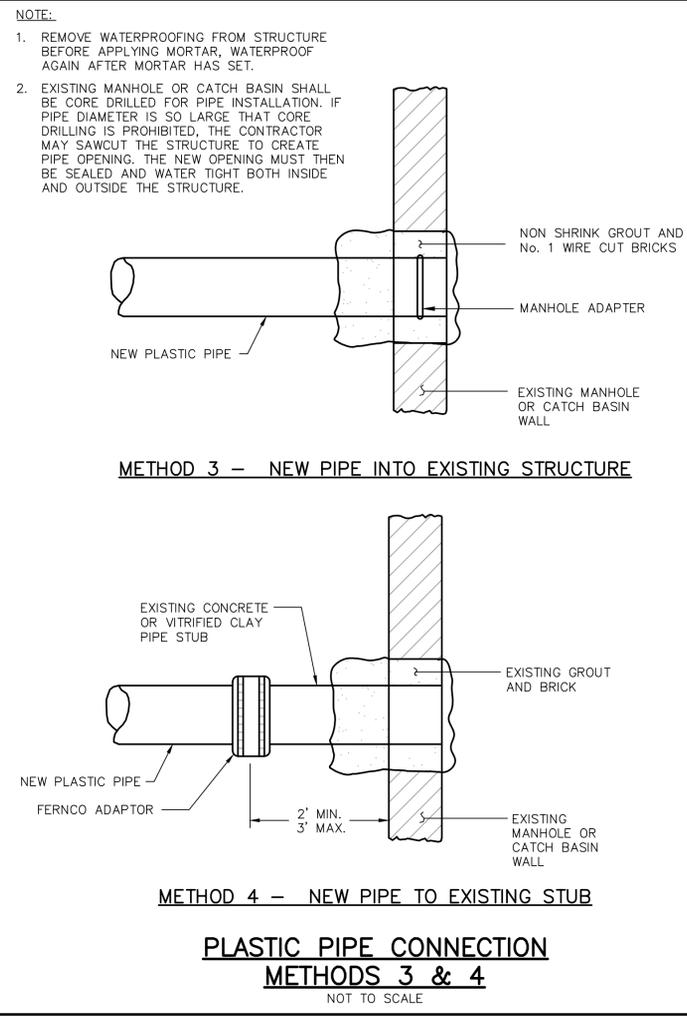
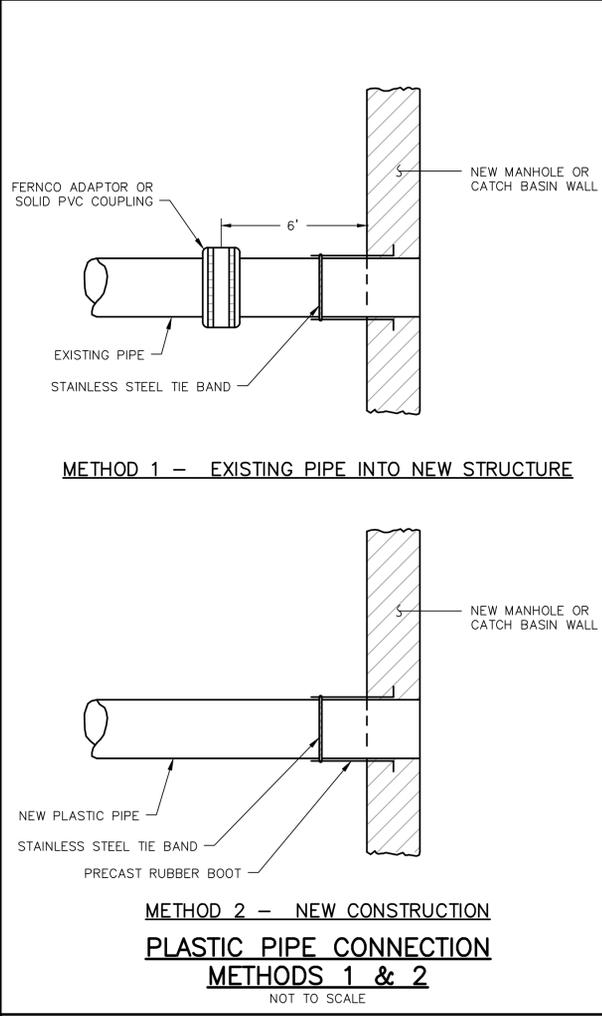
SEE COVER SHEET FOR SIGNATURE

FALL BROOK
PHASE 3
DETAILS
ROADWAY

CITY OF PORTLAND, MAINE
PUBLIC SERVICES DEPARTMENT
ENGINEERING SECTION



SHEET # 13 OF 18
VAULT PLAN NUMBER

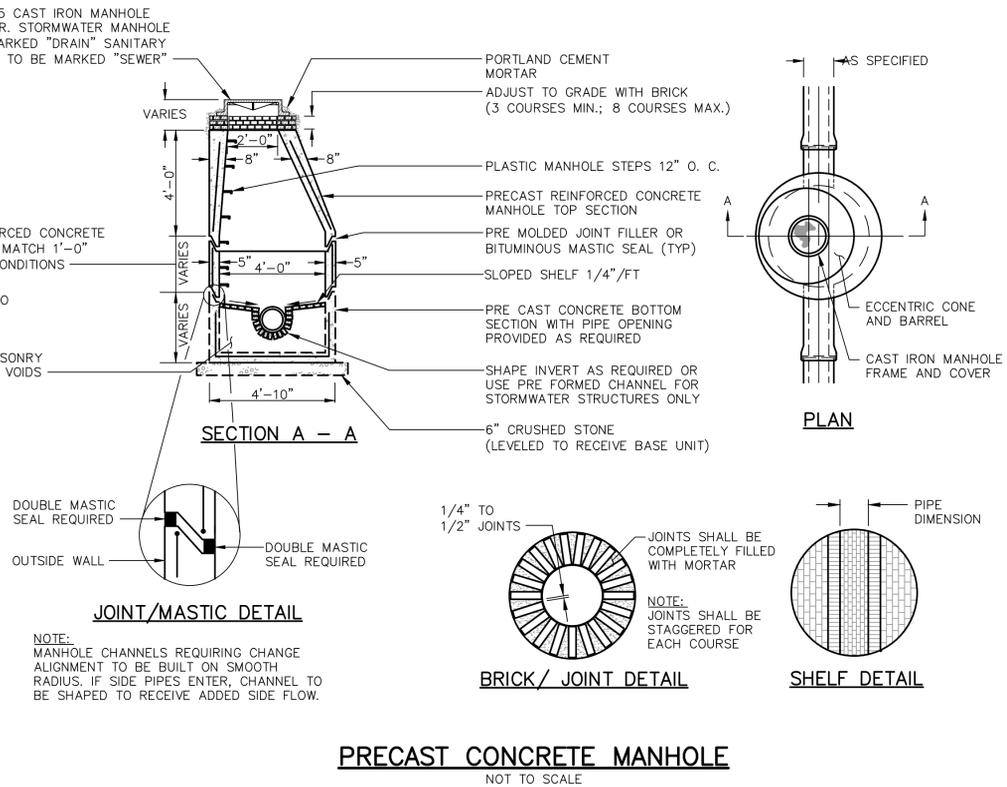
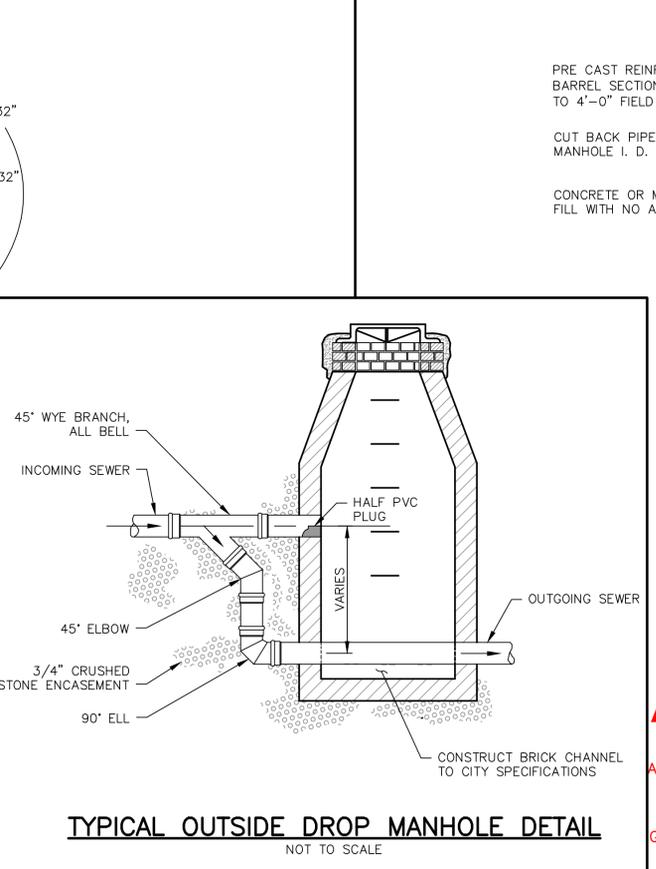
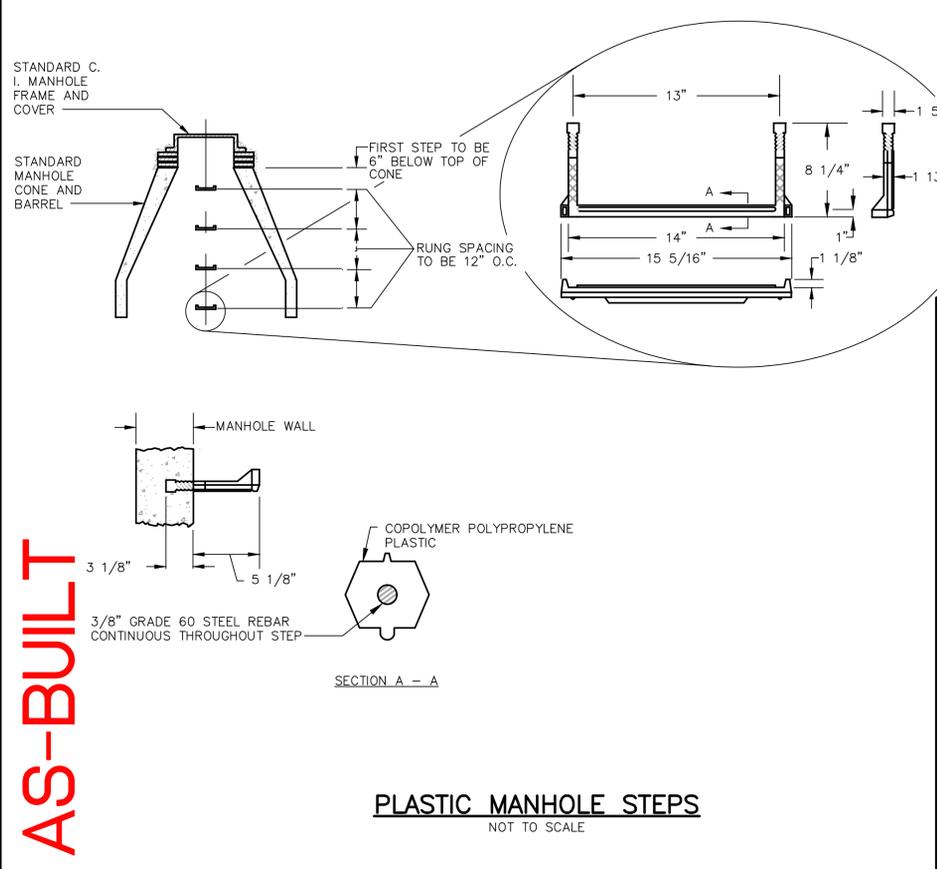


- GENERAL NOTES FOR MANHOLES AND CATCH BASINS**
- ALL CONCRETE SHALL HAVE A MINIMUM ULTIMATE COMPRESSIVE STRENGTH OF 4000 LBS. PER SQ. INCH AT THE END OF 28 DAYS, UNLESS OTHERWISE NOTED.
 - MANHOLES MAY BE CONSTRUCTED OF MASONRY, PRECAST REINFORCED CONCRETE, OR CAST IN PLACE.
 - PRECAST REINFORCED CONE BARREL MANUFACTURED PER ASTM SPEC. C-478.
 - ALL STORM AND SEWER MANHOLE COVERS SHALL BE SOLID AND SHALL HAVE ONE 7/8" DIAMETER DRILLED PICK HOLE LOCATED 8" FROM THE CENTER OF THE COVER.
 - ALL SANITARY MANHOLE COVERS SHALL HAVE "SEWER" CAST INTO THE COVER. ALL STORMWATER/DRAIN MANHOLE COVERS SHALL HAVE "DRAIN" CAST INTO THE COVER.
 - ALL MANHOLE RISERS SHALL BE ETHERIDGE 24" OR APPROVED EQUAL.
 - SEWER BRICK SHALL CONFORM TO ASTM SPEC. DESIGNATE ON C-32-63, GRADE MA AND SA.
 - ALL SANITARY MANHOLES SHALL HAVE A WATERPROOFING COATING APPLIED TO THE EXTERIOR SURFACE. IF CONSTRUCTED OF BRICK MASONRY, SURFACE SHALL BE PLASTERED WITH A SMOOTH MORTAR FINISH 3/8" THICK. AFTER THE MORTAR HAS SET, THE SURFACE SHALL BE WATERPROOFED AS REQUIRED BY SUPPLEMENTAL SPECIFICATIONS SECTION 604.
 - CATCH BASIN FRAMES FOR TYPE A4 CATCH BASIN CURB INLETS SHALL BE ETHERIDGE DR5A OR APPROVED EQUAL.
 - CASTINGS SHALL CONFORM TO ASTM DESIGNATION A48-CLASS 35.
 - EXISTING MANHOLES, CATCH BASINS, FRAMES, AND COVERS SHALL BE SALVAGED BY THE CONTRACTOR, AND SHALL REMAIN THE PROPERTY OF THE CITY OF PORTLAND.
 - ALL CATCH BASIN OUTLETS SHALL BE INSTALLED WITH A CASCO TRAP.

REFERENCES:

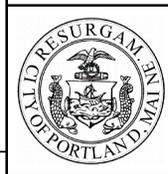
DESIGNED BY:	P. OSTROMSKI
DRAWN BY:	B. VANDUAM
CHECKED BY:	W. HASKELL
SCALE:	AS NOTED
DATE:	07/23/2009

LDD PROJECT NAME: N/A
DRAWING NAME: 1343.24-DET-AS-BUILT.dwg
FIELD BOOK USED: N/A



FALL BROOK
PHASE 3
DETAILS
UTILITY - SHEET 1

CITY OF PORTLAND, MAINE
PUBLIC SERVICES DEPARTMENT
ENGINEERING SECTION

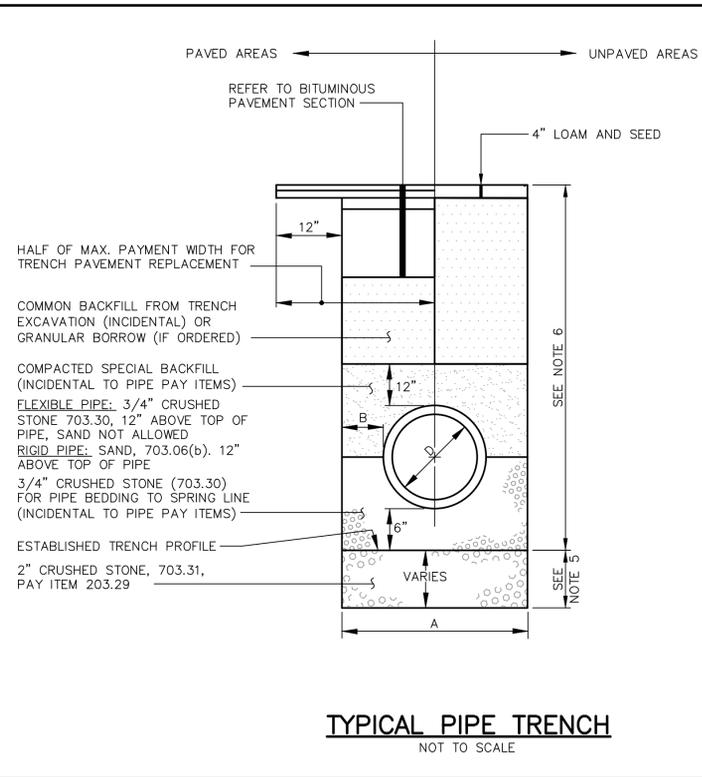


AS-BUILT

AS-BUILT
DECEMBER 01, 2011
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Gray, ME 04039
207-657-6910
207-657-6912
E-Mail: mailbox@gorrillpalmer.com

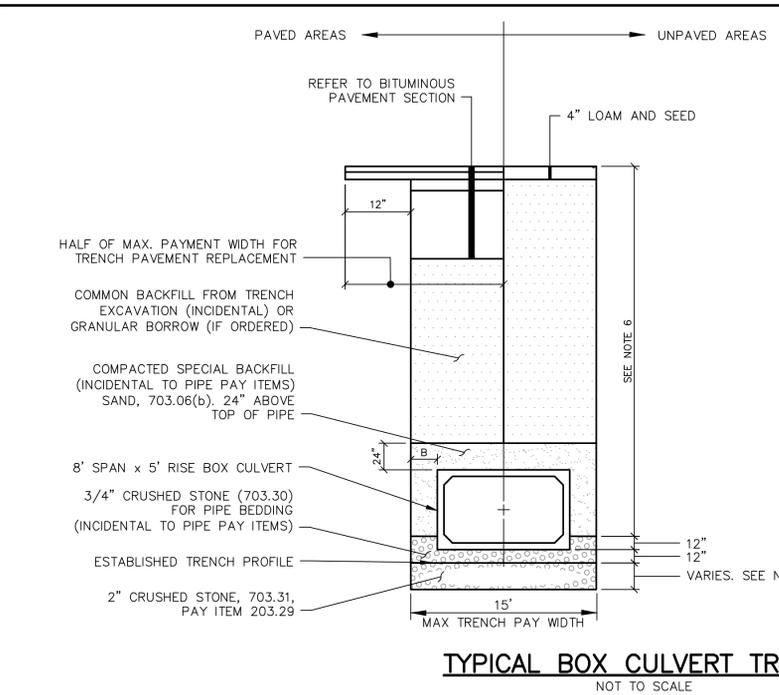
SHEET # 14 OF 18
VAULT PLAN NUMBER



- NOTES**
1. ALTERNATIVE CONSTRUCTION METHODS OR PAYMENT METHODS SHALL BE APPROVED IN ADVANCE BY THE CITY.
 2. IN PAVED AREAS REFER TO BITUMINOUS PAVEMENT SECTION FOR DEPTHS OF GRAVEL AND HOT MIX ASPHALT PAVEMENT BASED ON THE CORRESPONDING STREET CLASSIFICATION.
 3. DIMENSION "B" SHALL BE SUFFICIENT TO ALLOW CRUSHED STONE BEDDING TO BE PLACED AND COMPACTED UNDER THE HAUNCHES OF THE PIPE; BUT IN ALL CASES "B" SHALL BE AT LEAST 9".
 4. DIMENSION "A" IS THE MAXIMUM WIDTH ALLOWED FOR CALCULATING PAY QUANTITIES UNDER GRANULAR BORROW, CRUSHED STONE, STRUCTURAL EARTH EXCAVATION, AND STRUCTURAL ROCK EXCAVATION. DIMENSION "A" SHALL BE BASED ON PIPE DIAMETER "D", AS SET FORTH IN THE FOLLOWING TABLE.
 5. EXCAVATION BELOW ESTABLISHED TRENCH PROFILE (IF ORDERED). PAY ITEM 206.061.
 6. EXCAVATION INCIDENTAL TO PIPE PAY ITEMS (PAVED AND SEEDED AREAS)

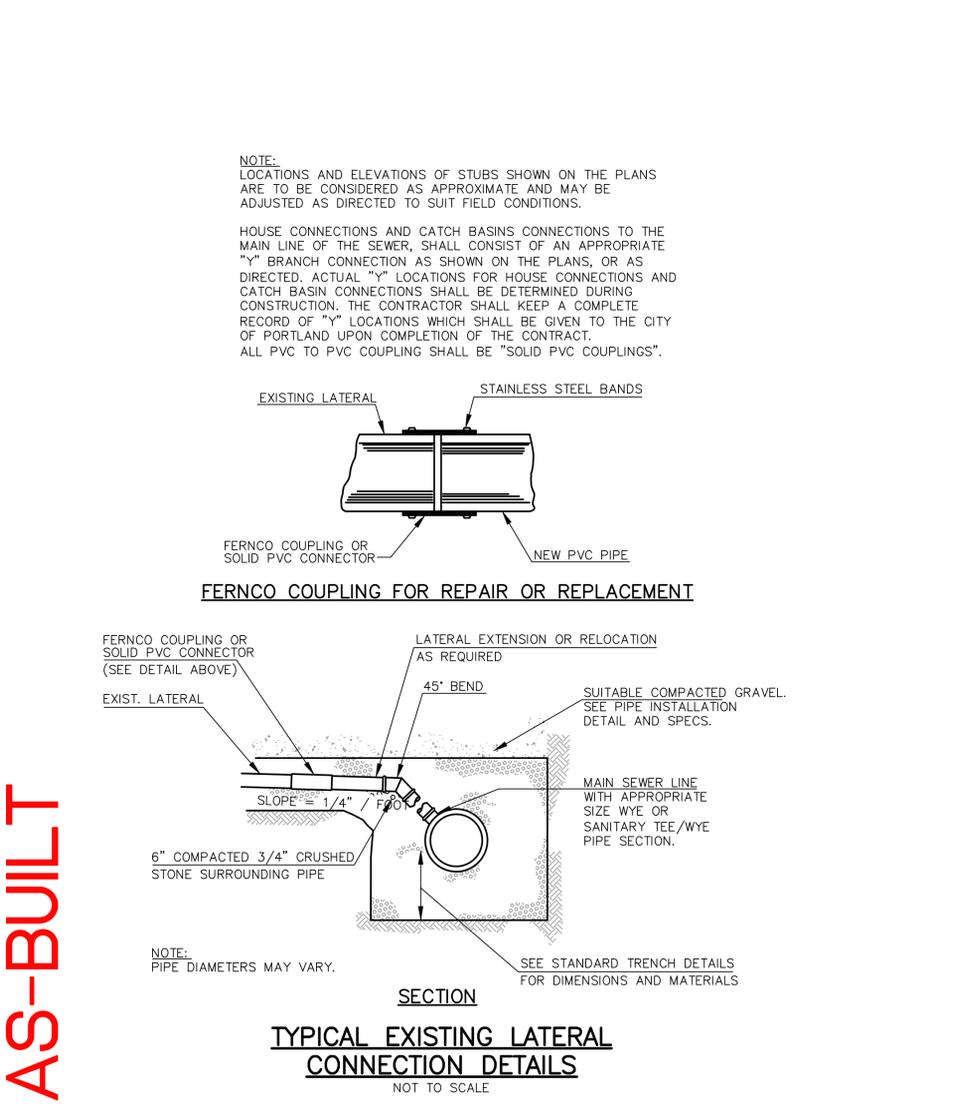
PIPE DIAMETER, "D" (INCHES)	MAX. TRENCH WIDTH, "A" (FEET)
4	4.0
6	4.0
8	4.0
10	4.0
12	4.0
15	4.0
18	5.0
21	5.0
24	5.5
27	6.0
30	6.0
36	7.0
42	8.0
48	8.0

TYPICAL PIPE TRENCH
NOT TO SCALE

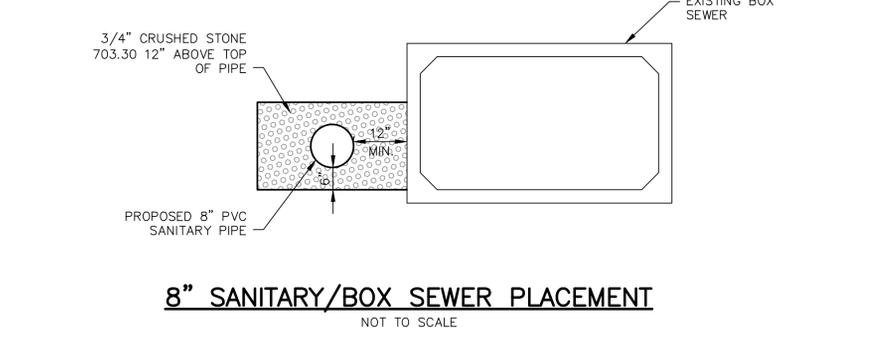


- NOTES**
1. ALTERNATIVE CONSTRUCTION METHODS OR PAYMENT METHODS SHALL BE APPROVED IN ADVANCE BY THE CITY.
 2. IN PAVED AREAS REFER TO BITUMINOUS PAVEMENT SECTION FOR DEPTHS OF GRAVEL AND HOT MIX ASPHALT PAVEMENT BASED ON THE REQUIREMENTS FOR THE CORRESPONDING STREET CLASSIFICATION.
 3. DIMENSION "B" SHALL NOT BE LESS THAN 18".
 4. EXCAVATION BELOW ESTABLISHED TRENCH PROFILE (IF ORDERED). PAY ITEM 205.061.
 5. EXCAVATION INCIDENTAL TO PIPE PAY ITEMS (PAVED AND SEEDED AREAS)

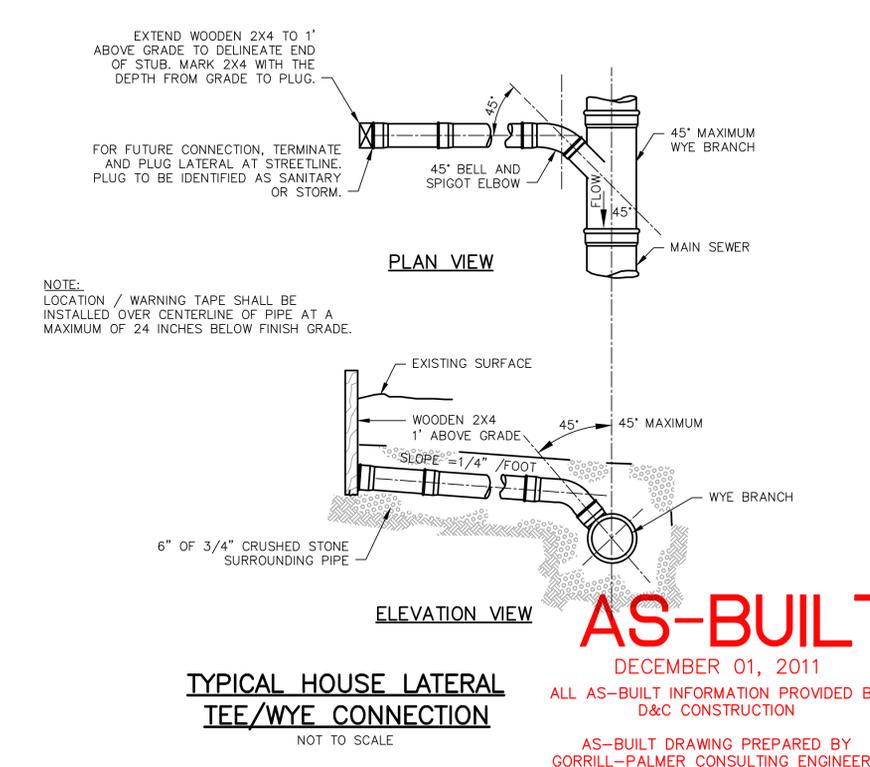
TYPICAL BOX CULVERT TRENCH
NOT TO SCALE



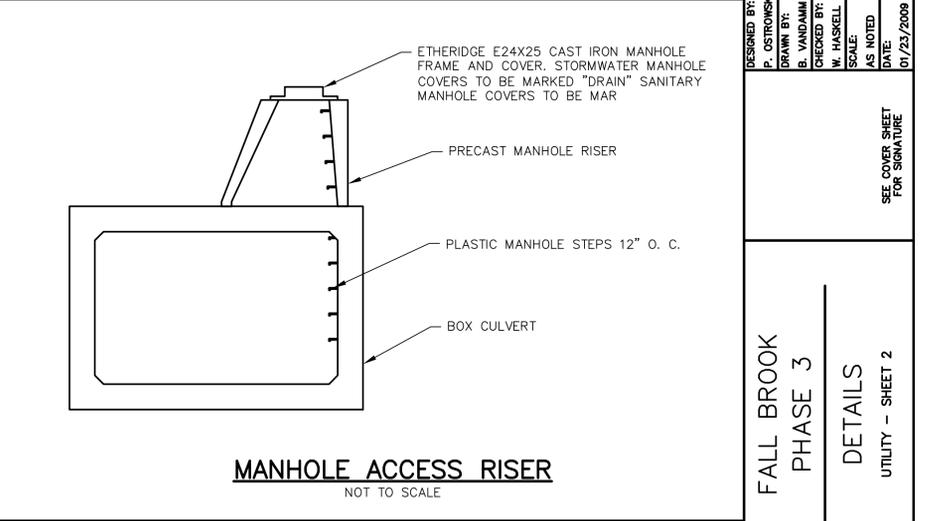
TYPICAL EXISTING LATERAL CONNECTION DETAILS
NOT TO SCALE



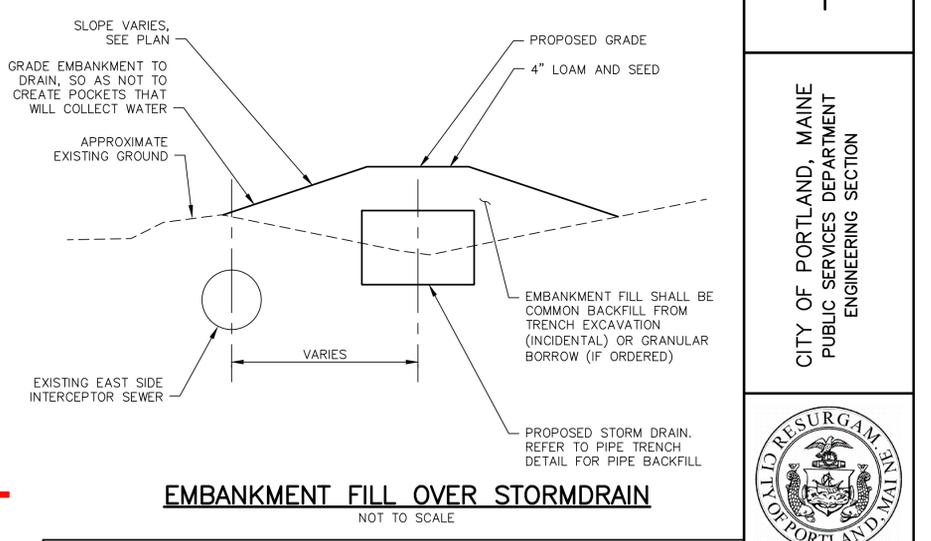
8" SANITARY/BOX SEWER PLACEMENT
NOT TO SCALE



TYPICAL HOUSE LATERAL TEE/WYE CONNECTION
NOT TO SCALE



MANHOLE ACCESS RISER
NOT TO SCALE



EMBANKMENT FILL OVER STORMDRAIN
NOT TO SCALE

AS-BUILT

AS-BUILT

DECEMBER 01, 2011
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207-657-6910 FAX: 207-657-6912 E-Mail: mailbox@gorrillpalmer.com

REFERENCES:

DESIGNED BY: P. OSTROWSKI
DRAWN BY: B. VANDAMM
CHECKED BY: W. HASKELL
SCALE: AS NOTED
DATE: 01/23/2009

LDD PROJECT NAME: N/A
DRAWING NAME: 13A3.24-DET-AS BUILT.RVT
FIELD BOOK USED: N/A

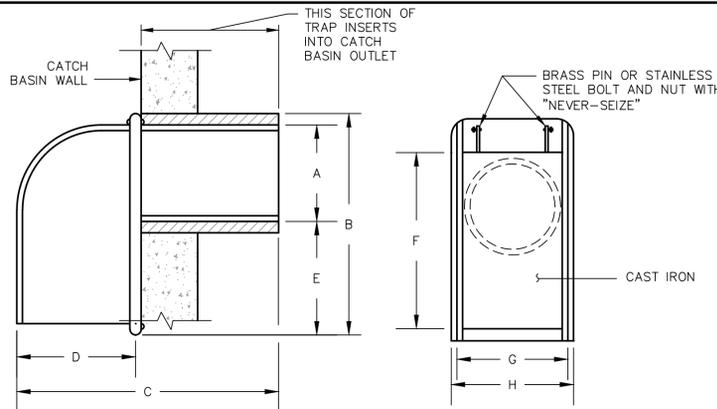
SEE COVER SHEET FOR SIGNATURE

FALL BROOK PHASE 3 DETAILS UTILITY - SHEET 2

CITY OF PORTLAND, MAINE PUBLIC SERVICES DEPARTMENT ENGINEERING SECTION

WILD RESURGAM PORTLAND, MAINE

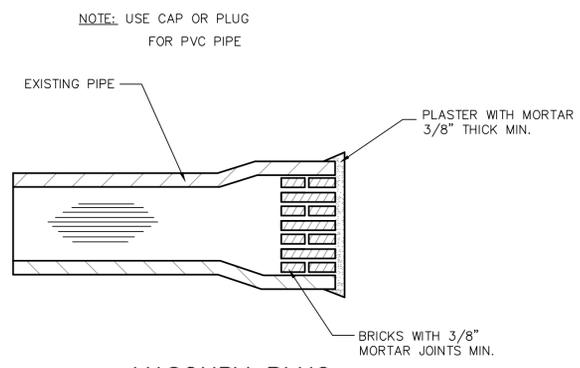
SHEET # 15 OF 18 VAULT PLAN NUMBER



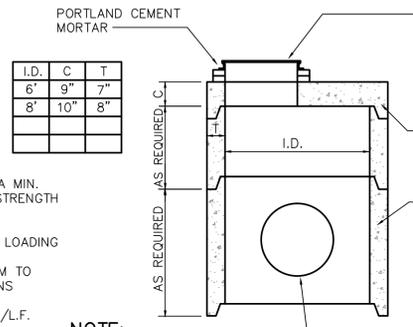
SIZE	A	B	C	D	E	F	G	H
6 in.	5 1/2"	13 3/8"	13 3/4"	5 3/8"	5 7/8"	11 5/8"	6 1/2"	7 1/4"
8 in.	7 1/2"	15"	15 3/8"	5 1/2"	5 3/8"	13 3/4"	8 3/4"	9 3/8"
10 in.	9 1/2"	16"	16 1/4"	6"	4 1/2"	14 1/8"	11 1/2"	12 3/8"
12 in.	11 1/2"	17"	22"	8"	3 1/2"	17"	12 1/2"	13 3/8"

(AS MANUFACTURED BY THE ETHERIDGE FOUNDRY IN PORTLAND, ME.)
 NOTE: CONTRACTOR SHALL UTILIZE THE "CASCO TRAP" AS MANUFACTURED BY THE ETHERIDGE FOUNDRY, OR AN APPROVED EQUIVALENT AS SUPPLIED BY THE LEBARON FOUNDRY, MODEL # L-202 "STANDARD CATCH BASIN TRAP"

CASCO TRAP
NOT TO SCALE

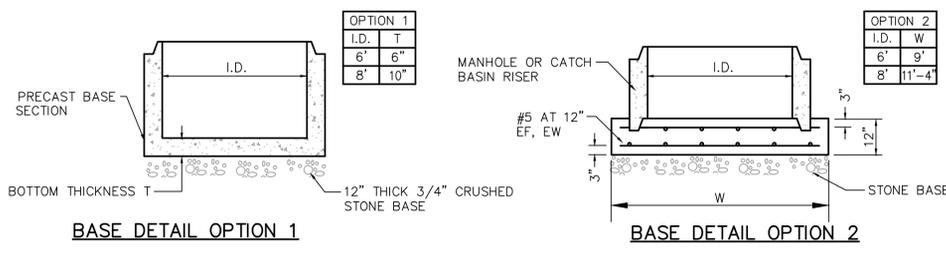


MASONRY PLUG
NOT TO SCALE

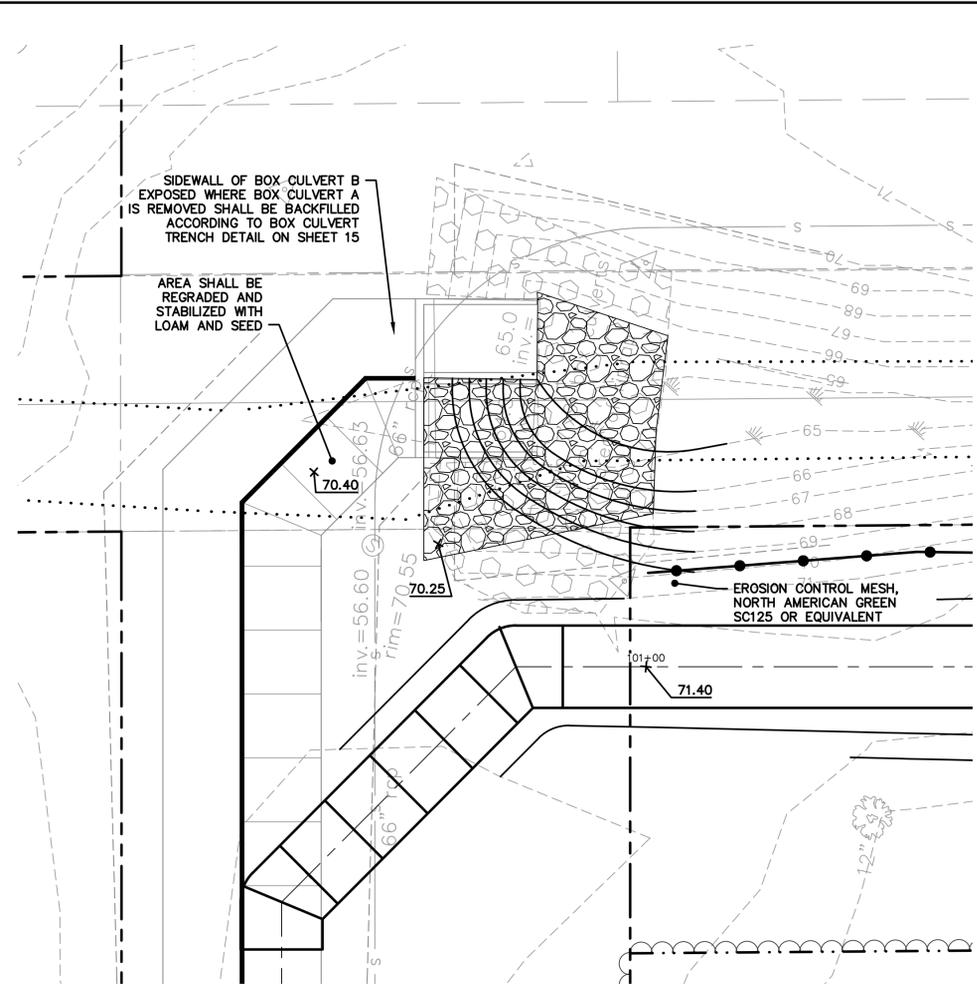


- DESIGN NOTES:**
- ALL CONCRETE TO HAVE A MIN. 4,000 PSI COMPRESSIVE STRENGTH AT 28 DAYS
 - DESIGN FOR H-20 WHEEL LOADING
 - CATCH BASIN TO CONFORM TO ASTM-C478 SPECIFICATIONS
 - REINFORCE TO .12 IN. SQ./L.F.

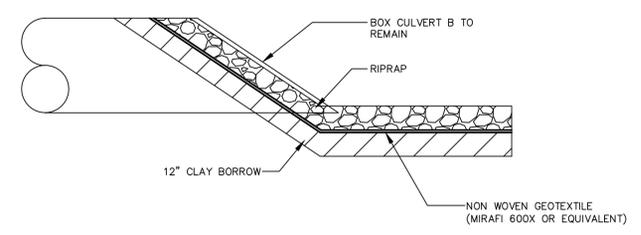
NOTE: FOR BASE CONSTRUCTION SEE BASE DETAIL



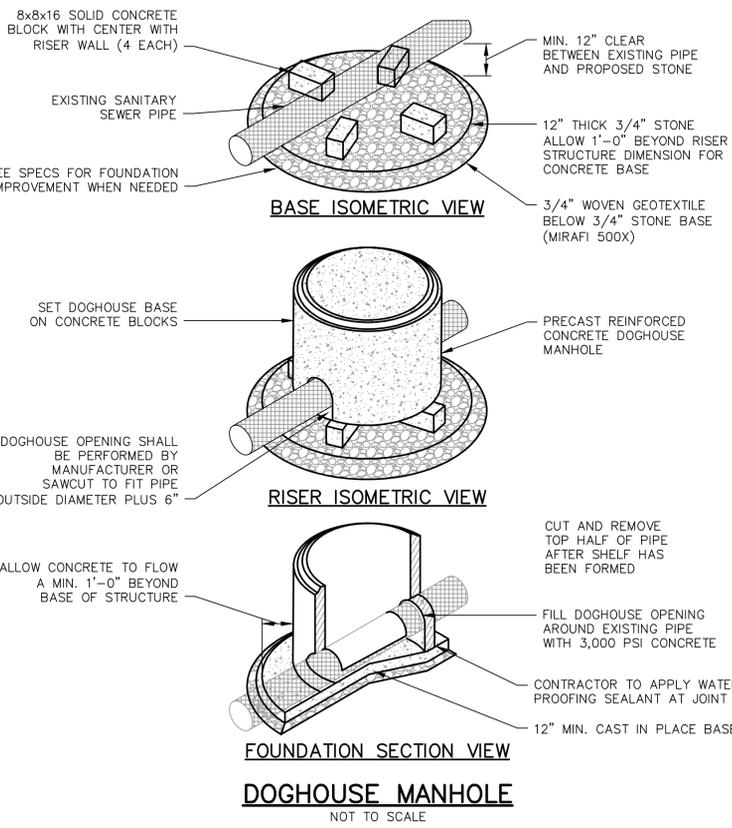
LARGE DIAMETER STORM DRAIN MANHOLE AND CATCH BASIN WITH FLAT TOP
NOT TO SCALE



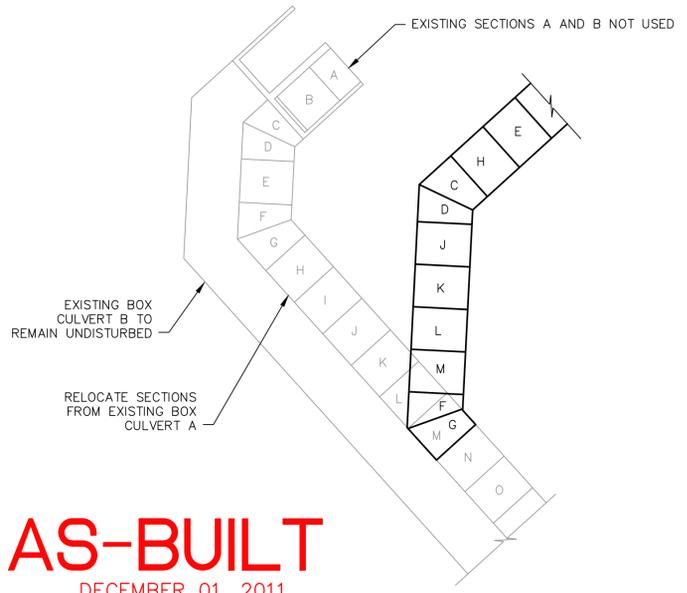
CULVERT AREA RESTORATION
SCALE: 1"=10'



CULVERT RESTORATION SECTION
NOT TO SCALE



DOGHOUSE MANHOLE
NOT TO SCALE



BOX CULVERT TIE IN
NOT TO SCALE

AS-BUILT
DECEMBER 01, 2011
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AS-BUILT DRAWING PREPARED BY GORRILL-PALMER CONSULTING ENGINEERS

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 E-Mail: mailbox@gorrillpalmer.com

REFERENCES:

DESIGNED BY: P. OSTROMSKI	LDD PROJECT NAME: N/A
DRAWN BY: B. VANDAMM	DRAWING NAME: 1343.24-DET-AS BUILT-DW
CHECKED BY: W. HASKELL	FIELD BOOK USED: N/A
SCALE: AS NOTED	
DATE: 01/23/2009	

SEE COVER SHEET FOR SIGNATURE

FALL BROOK PHASE 3 DETAILS DRAINAGE

CITY OF PORTLAND, MAINE
PUBLIC SERVICES DEPARTMENT
ENGINEERING SECTION

AS-BUILT
DECEMBER 01, 2011
ALL AS-BUILT INFORMATION PROVIDED BY D&C CONSTRUCTION

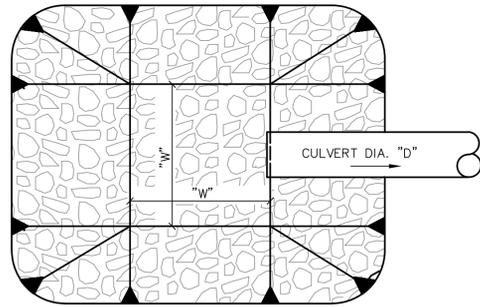
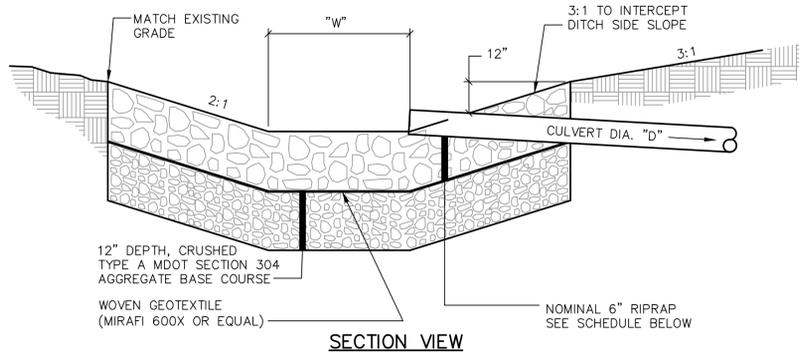
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BOX CULVERT TIE IN
NOT TO SCALE

SHEET # 16 OF 18
VAULT PLAN NUMBER

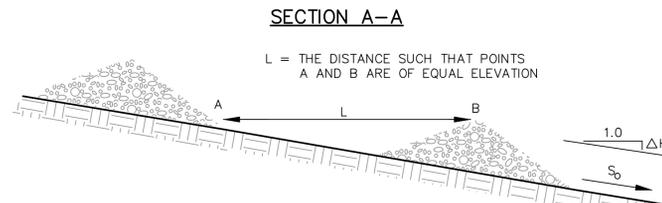
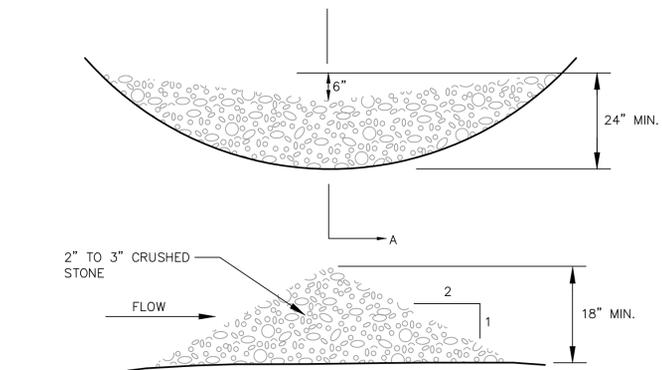
AS-BUILT

AS-BUILT



SCHEDULE				
INLET	CULVERT DIAMETER (D)	WIDTH (W)	STONE D ₅₀	RIPRAP THICKNESS
CULVERT INLETS	10"-15"	3'	6"	15"
	18"-24"	5'	6"	15"

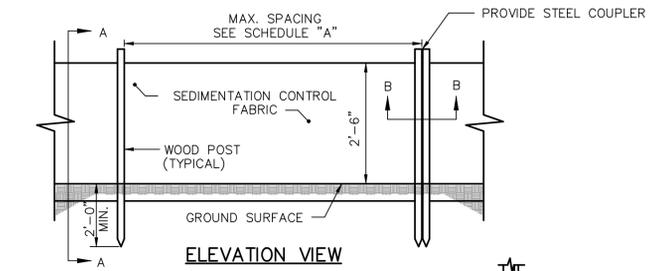
CULVERT INLET APRON
NOT TO SCALE



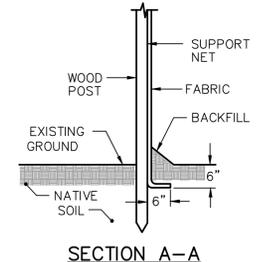
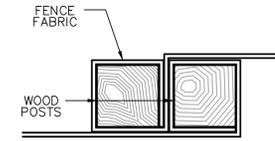
SPACING BETWEEN CHECK DAMS

S ₀ (FT./FT.)	L (FT.)
0.020	75
0.030	50
0.040	40
0.050	30
0.080	20
0.100	15'

STONE CHECK DAM
NOT TO SCALE

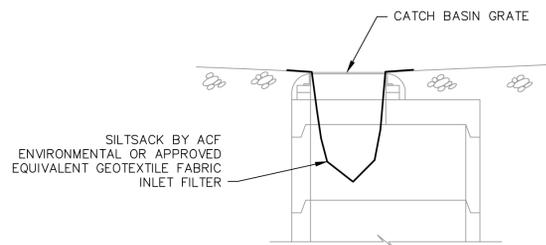


SCHEDULE "A"	
SILT FENCE REINFORCEMENT	MAX. SPACING
NONE	6'
WIRE REINFORCEMENT 14 GAUGE, 6" MESH	10'

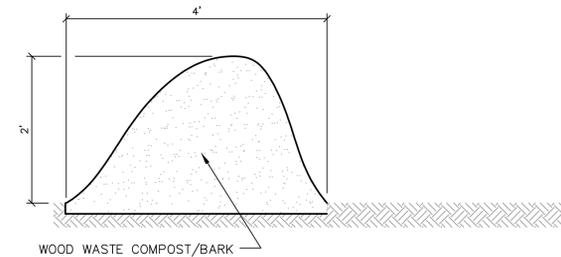


SECTION B-B

SILTATION FENCE
NOT TO SCALE



CATCH BASIN INLET FILTER
NOT TO SCALE



WOOD WASTE COMPOST/BARK FILTER BERM
NOT TO SCALE

NOTES:

- THE WOOD WASTE COMPOST/BARK MIX SHALL CONFORM TO THE FOLLOWING STANDARDS:
 - MOISTURE CONTENT - 30-60%.
 - pH - 5.0 - 8.0.
 - SCREEN SIZE - 100% LESS THAN 3", MAX. 70% LESS THAN 1".
 - NO LESS THAN 40% ORGANIC MATERIAL (DRY WEIGHT) BY LOSS OF IGNITION.
 - NO STONES LARGER THAN 2" IN DIAMETER.
 - SILTS, CLAYS OR SUGAR SANDS ARE NOT ACCEPTABLE IN THE MIX.
- THE COMPOST BERM SHALL BE PLACED, UNCOMPACTED, ALONG A RELATIVELY LEVEL CONTOUR.
- THE WOOD WASTE COMPOST/BARK FILTER BERM MAY BE USED IN LIEU OF SILTATION FENCE, AT THE TOE OF SHALLOW SLOPES, ON FROZEN GROUND, LEDGE OUT CROPS, VERY ROOTED FORESTED AREA OR AT THE EDGE OF GRAVEL PARKING AREAS.
- BERMS SHALL REMAIN IN PLACE UNTIL UPSTREAM AREA IS COMPLETED OR 90% CATCH OF VEGETATION IS ATTAINED. BERMS SHALL BE REMOVED BY SPREADING SUCH THAT NATIVE EARTH CAN BE SEEN BELOW.
- WOODWASTE COMPOST BARK FILTER BERM SHALL NOT BE USED IN WETLAND AREAS.

AS-BUILT
DECEMBER 01, 2011
ALL AS-BUILT INFORMATION PROVIDED BY
D&C CONSTRUCTION
AS-BUILT DRAWING PREPARED BY
GORRILL-PALMER CONSULTING ENGINEERS

GP Gorrill-Palmer Consulting Engineers, Inc.
PO Box 1237 Engineering Excellence Since 1998 207-657-6910
15 Shaker Road Gray, ME 04039 FAX: 207-657-6912
E-Mail: mailbox@gorrillpalmer.com

REFERENCES:

DESIGNED BY: P. OSTROWSKI
DRAWN BY: B. VANDAM
CHECKED BY: W. HASKELL
SCALE: AS NOTED
DATE: 01/23/2009

LDD PROJECT NAME: N/A
DRAWING NAME: 1343.24-DET-AS BUILT-1
FIELD BOOK USED: N/A

SEE COVER SHEET FOR SIGNATURE

FALL BROOK
PHASE 3
DETAILS
EROSION AND SEDIMENTATION CONTROL

CITY OF PORTLAND, MAINE
PUBLIC SERVICES DEPARTMENT
ENGINEERING SECTION



SHEET #
17 OF 18
VAULT PLAN NUMBER

8.3.5 EROSION CONTROL MEASURES AND SITE STABILIZATION

THE PRIMARY POINTS THAT ARE EMPHASIZED BY THE EROSION AND SEDIMENTATION CONTROL PLAN TO BE IMPLEMENTED FOR THIS PROJECT ARE AS FOLLOWS:
 * DEVELOPMENT OF A CAREFUL CONSTRUCTION SEQUENCE.
 * RAPID REVEGETATION OF DENUDED AREAS TO MINIMIZE THE DURATION OF SOIL EXPOSURE.
 * RAPID STABILIZATION OF DRAINAGE PATHS TO AVOID RILL AND GULLY EROSION.
 * THE USE OF ON-SITE MEASURES TO CAPTURE SEDIMENT (SEDIMENTATION BASINS, SILT FENCE, ETC.)

THE FOLLOWING TEMPORARY AND PERMANENT EROSION AND SEDIMENTATION CONTROL DEVICES WILL BE IMPLEMENTED AS PART OF THE SITE DEVELOPMENT. THESE DEVICES SHALL BE INSTALLED AS INDICATED ON THE PLANS OR AS DESCRIBED WITHIN THIS REPORT. AS THE PROPOSED PROJECT HAS AN ENVISIONED STARTED DATE OF DECEMBER WITH ONGOING CONSTRUCTION DURING THE WINTER MONTHS (SEPTEMBER 15 TO APRIL 15) THE CONTRACTOR IS REFERRED TO SECTION 8.4 - WINTER STABILIZATION PLAN AND 8.5 - STANDARDS FOR TIMELY STABILIZATION OF CONSTRUCTION SITE DURING WINTER, FOR ADDITIONAL INFORMATION RELATIVE TO EROSION CONTROL MEASURE. FOR FURTHER REFERENCE, SEE THE MAINE EROSION AND SEDIMENT CONTROL HANDBOOK FOR CONSTRUCTION: BEST MANAGEMENT PRACTICES.

A. TEMPORARY EROSION CONTROL MEASURES

THE FOLLOWING MEASURES ARE PLANNED AS TEMPORARY EROSION AND SEDIMENTATION CONTROL MEASURES DURING CONSTRUCTION:

1. A CRUSHED-STONE-STABILIZED CONSTRUCTION ENTRANCE SHALL BE INSTALLED AT THE PROPOSED ACCESS POINTS TO THE CONSTRUCTION AREA. WATER SHALL BE UTILIZED TO CONTROL DUST.
 2. SILTATION FENCE OR OTHER APPROVED SEDIMENT BARRIER SHALL BE INSTALLED DOWNSTREAM OF ANY DISTURBED AREAS TO TRAP RUNOFF-BORNE SEDIMENTS UNTIL THE SITE IS RE-VEGETATED. DURING FROZEN CONDITIONS, SEDIMENT BARRIERS SHALL CONSIST OF WOOD WASTE FILTER BERMS AS FROZEN SOILS PREVENT PROPER INSTALLATION OF HAY BALES AND SILT FENCE. SILT FENCE SHALL BE INSTALLED PER THE DETAIL PROVIDED IN THE PLAN SET AND INSPECTED IMMEDIATELY AFTER EACH RAINFALL EVENT AND AT LEAST DAILY DURING PROLONGED RAINFALL. REPAIRS SHALL BE MADE IF THERE ARE ANY SIGNS OF EROSION OR SEDIMENTATION BELOW THE FENCE LINE OR IF THE FENCE BECOMES DAMAGED, TORN, OR KNOCKED OVER. IF THERE ARE SIGNS OF UNDERCUTTING AT THE CENTER OR THE EDGES, OR IMPOUNDING OF LARGE VOLUMES OF WATER BEHIND THE FENCE, THE BARRIER SHALL BE REPLACED WITH A STONE CHECK DAM. A DOUBLE ROW OF SILTATION FENCE SHALL BE INSTALLED ADJACENT TO WETLANDS, AS SHOWN ON THE PLANS.

3. STRAW OR HAY MULCH INCLUDING HYDROSEEDING IS INTENDED TO PROVIDE COVER FOR DENUDED OR SEEDED AREAS UNTIL RE-VEGETATION IS ESTABLISHED. MULCH PLACED BETWEEN APRIL 15 AND SEPTEMBER 15 ON SLOPES LESS THAN 15 PERCENT SHALL BE ANCHORED BY APPLYING WATER; MULCH PLACED ON SLOPES GREATER THAN OR EQUAL TO 15 PERCENT SHALL BE COVERED BY A FABRIC NETTING AND ANCHORED WITH STAPLES IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. FABRIC NETTING AND STAPLES SHALL BE USED ON ALL DISTURBED AREAS WITHIN 100 FEET OF ANY STREAM OR WETLAND REGARDLESS OF THE UPSTREAM SLOPE. MULCH PLACED BETWEEN SEPTEMBER 15 AND APRIL 15 ON SLOPES GREATER THAN OR EQUAL TO 8 PERCENT SHALL BE COVERED WITH A FABRIC NETTING AND ANCHORED WITH STAPLES IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. SLOPES STEEPER THAN 3H:1V AND EQUAL TO OR FLATTER THAN 2H:1V THAT ARE TO BE RE-VEGETATED SHALL RECEIVE CURLEX BLANKETS BY AMERICAN EXCELSIOR OR APPROVED EQUIVALENT. SLOPES STEEPER THAN 2H:1V SHALL RECEIVE RIPRAP AS NOTED IN THE PLAN SET. MULCH APPLICATION RATES ARE PROVIDED IN ATTACHMENT B OF THIS SECTION. IN NO INSTANCE SHALL MULCH BE PLACED OVER SNOW.

4. TEMPORARY STOCKPILES OF STUMPS, GRUBBINGS, AND/OR COMMON EXCAVATION WILL BE PROTECTED AS FOLLOWS:
 a) TEMPORARY STOCKPILES SHALL BE LOCATED AWAY FROM DRAINAGE SWALES AND SHALL NOT BE LOCATED WITHIN 100 FEET OF ANY UNDISTURBED WETLANDS.

b) STOCKPILES SHALL BE STABILIZED WITHIN SEVEN (7) DAYS OF THE TIME OF FORMATION DURING SUMMER CONSTRUCTION AND WITHIN 24 HOURS OF FORMATION DURING WINTER CONSTRUCTION BY ONE OF THE FOLLOWING METHODS:

- 1) TEMPORARILY SEEDING THE STOCKPILE BY A HYDROSEED METHOD CONTAINING AN EMULSIFIED MULCH TACKIFIER, OR
- ii) COVERING THE STOCKPILE WITH MULCH SUCH AS HAY, STRAW, OR OTHER EROSION CONTROL MIX.
- c) STOCKPILES SHALL BE SURROUNDED BY SEDIMENTATION BARRIER AT THE TIME OF FORMATION.
- 5. ALL DENUDED AREAS WITHIN 100 FEET OF UNDISTURBED WETLANDS THAT HAVE BEEN ROUGH GRADED AND ARE NOT LOCATED WITHIN A BUILDING PAD, PARKING AREA, OR ACCESS DRIVE SUBBASE AREA SHALL RECEIVE MULCH OR EROSION CONTROL MESH FABRIC WITHIN SEVEN (7) DAYS OF INITIAL DISTURBANCE OF SOIL. ALL AREAS WITHIN 100 FEET OF UNDISTURBED WETLANDS SHALL BE MULCHED PRIOR TO ANY PREDICTED RAIN EVENT REGARDLESS OF THE SEVEN-DAY WINDOW. IN OTHER AREAS THE TIME PERIOD MAY BE EXTENDED TO FOURTEEN (14) DAYS.
- 6. FOR WORK THAT IS CONDUCTED BETWEEN SEPTEMBER 15 AND APRIL 15 OF ANY CALENDAR YEAR, ALL DENUDED AREAS SHALL BE COVERED WITH HAY MULCH OR EROSION CONTROL MIX APPLIED AT TWICE THE NORMAL APPLICATION RATE AND ANCHORED WITH FABRIC NETTING. THE TIME PERIOD FOR APPLYING MULCH SHALL BE LIMITED TO SEVEN (7) DAYS FOR ALL AREAS.

7. THE SURROUNDING ROADWAY INFRASTRUCTURE SHALL BE SWEEPED OF MUD AND DUST AS NECESSARY.
 8. DURING GRUBBING OPERATIONS, STONE CHECK DAMS SHALL BE INSTALLED AT ANY EVIDENT CONCENTRATED FLOW DISCHARGE POINT AND AS INDICATED IN THE PLAN SET.

9. SILT FENCING WITH A MINIMUM STAKE SPACING OF SIX (6) FEET SHALL BE USED DOWNSTREAM OF ALL DISTURBED AREAS AND AS INDICATED IN THE PLAN SET. IF FENCE IS SUPPORTED BY WIRE FENCE REINFORCEMENT OF MINIMUM FOURTEEN (14) GAUGE AND MAXIMUM MESH SPACING OF SIX (6) INCHES, STAKES MAY BE SPACED A MAXIMUM OF TEN (10) FEET APART. THE BOTTOM OF THE FENCE SHALL BE ANCHORED.

10. STORM DRAIN CATCH BASIN INLET PROTECTION SHALL BE PROVIDED THROUGH THE USE OF STONE SEDIMENT BARRIERS OR APPROVED SEDIMENT BAGS; INSTALLATION DETAILS ARE PROVIDED IN THE PLAN SET. THE BARRIERS SHALL BE INSPECTED AFTER EACH RAINFALL AND REPAIRS MADE AS NECESSARY. SEDIMENT SHALL BE REMOVED AND THE BARRIER RESTORED TO ITS ORIGINAL DIMENSIONS WHENEVER THE SEDIMENT HAS ACCUMULATED TO ONE-HALF THE DESIGN DEPTH OF THE BARRIER. THE BARRIER SHALL BE REMOVED WHEN THE TRIBUTARY DRAINAGE AREA HAS BEEN STABILIZED.

11. WATER SHALL BE FURNISHED AND APPLIED IN ACCORDANCE WITH MDOT SPECIFICATIONS, SECTION 637 -DUST CONTROL.

12. LOAM AND SEED IS INTENDED TO SERVE AS THE PRIMARY PERMANENT RE-VEGETATIVE MEASURE FOR ALL DENUDED AREAS NOT PROVIDED WITH OTHER EROSION CONTROL MEASURES SUCH AS PAVING OR RIPRAP. APPLICATION RATES ARE PROVIDED IN ATTACHMENT B OF THIS SECTION. IN NO INSTANCE SHALL SEEDING OCCUR OVER SNOW.

B. PERMANENT EROSION CONTROL MEASURES

THE FOLLOWING PERMANENT EROSION AND SEDIMENTATION CONTROL MEASURES WILL BE IMPLEMENTED AS PART OF THE EROSION AND SEDIMENTATION CONTROL PLAN:

1. ALL AREAS DISTURBED DURING CONSTRUCTION NOT SUBJECT TO OTHER RESTORATION (PAVING, RIPRAP, ETC.) SHALL BE LOAMED, LIMED, FERTILIZED, MULCHED, AND SEEDED. FABRIC NETTING ANCHORED WITH STAPLES SHALL BE PLACED OVER THE MULCH IN AREAS AS NOTED IN PARAGRAPH 8.3.5.A.3. ALL AREAS WITHIN 100 FEET OF UNDISTURBED WETLANDS SHALL BE MULCHED PRIOR TO ANY PREDICTED RAIN EVENT REGARDLESS OF THE 7-DAY WINDOW. NATIVE TOPSOIL SHALL BE STOCKPILED AND REUSED FOR FINAL RESTORATION IF DEEMED TO BE OF SUFFICIENT QUALITY.
 2. CATCH BASINS SHALL BE PROVIDED WITH SEDIMENT SUMPS AND INLET HOODS FOR ALL OUTLET PIPES EIGHTEEN (18) INCHES IN DIAMETER OR LESS.

8.4 WINTER STABILIZATION PLAN

THE WINTER CONSTRUCTION PERIOD BEGINS SEPTEMBER 15 1 AND ENDS APRIL 15. IF THE CONSTRUCTION SITE IS NOT STABILIZED WITH PAVEMENT, ROAD GRAVEL BASE, 75 PERCENT MATURE VEGETATION COVER, OR RIPRAP BY NOVEMBER 15, ALL EXPOSED AREAS SHALL BE PROTECTED WITH OVER-WINTER STABILIZATION. AN EXPOSED AREA IS ANY AREA NOT STABILIZED WITH PAVEMENT, VEGETATION, MULCHING, EROSION CONTROL MAT, RIPRAP, OR GRAVEL BASE (ROAD ONLY). AN EXPOSED AREA SHALL ALSO BE CONSIDERED STABILIZED IF IT IS TRIBUTARY TO A FUNCTIONING SEDIMENTATION BASIN.

WINTER EXCAVATION AND EARTHWORK SHALL BE COMPLETED SUCH THAT ANY AREA LEFT EXPOSED CAN BE CONTROLLED BY THE CONTRACTOR TO THE SATISFACTION OF THE THIRD PARTY EROSION CONTROL INSPECTOR. EXPOSED AREAS SHALL BE LIMITED TO THOSE AREAS IN WHICH WORK IS EXPECTED TO COMMENCE AND COMPLETE IN THE NEXT FIFTEEN (15) DAYS AND THAT CAN BE MULCHED WITHIN ONE DAY PRIOR TO ANY SNOW EVENT.

ALL FUTURE ROADWAY AREAS SHALL BE CLASSIFIED EXPOSED UNTIL SUBBASE GRAVEL HAS BEEN INSTALLED; ALL FUTURE LOAM AND SEED AREAS SHALL BE CLASSIFIED EXPOSED UNTIL THEY HAVE BEEN LOAMED, SEEDED, AND MULCHED. HAY AND STRAW MULCH SHALL BE APPLIED AT TWICE THE NORMAL RATE, OR 150 LBS./1,000 S.F. (3 TONS/ACRE) MINIMUM, AND SHALL BE PROPERLY ANCHORED.

THE CONTRACTOR SHALL INSTALL ANY ADDITIONAL MEASURES AS NECESSARY TO CONTROL EROSION AND SEDIMENTATION FROM THE SITE DEPENDENT UPON THE ACTUAL SITE AND WEATHER CONDITIONS. EARTHWORK OPERATIONS ON OTHER AREAS SHALL NOT COMMENCE UNTIL THE EXPOSED SOIL SURFACE ON PREVIOUS AREAS BEING WORKED ON HAS BEEN STABILIZED IN ORDER TO MINIMIZE THE QUANTITY OF EXPOSED AREA AT ANY GIVEN TIME.

8.4.1 SOIL STOCKPILES

STOCKPILES OF SOIL OR SUBSOIL SHALL BE MULCHED FOR OVER-WINTER PROTECTION WITH HAY OR STRAW AT TWICE THE NORMAL RATE -150 LBS./1,000 S.F. (3 TONS/ACRE) -OR WITH A 4-INCH LAYER OF WOODWASTE EROSION CONTROL MIX. THIS MULCHING SHALL BE DONE WITHIN 24 HOURS OF STOCKING AND SHALL BE RE-ESTABLISHED PRIOR TO ANY RAINFALL OR SNOWFALL EVENT. NO SOIL STOCKPILE, MULCHED OR OTHERWISE, SHALL BE PLACED WITHIN 100 FEET OF ANY NATURAL RESOURCE.

8.4.2 NATURAL RESOURCE PROTECTION

ANY AREA WITHIN 100 FEET OF A NATURAL RESOURCE THAT IS NOT STABILIZED WITH A MINIMUM 75 PERCENT MATURE VEGETATION CATCH SHALL BE MULCHED BY DECEMBER 1 AND ANCHORED WITH PLASTIC NETTING OR PROTECTED WITH EROSION CONTROL MATS. A DOUBLE-LINE SEDIMENT BARRIER -SILT FENCE BACKED WITH HAY BALES OR EROSION CONTROL MIX -SHALL BE PLACED BETWEEN ANY NATURAL RESOURCE AND THE DISTURBED AREA. ANY NATURAL RESOURCE CROSSINGS SHALL BE PROTECTED A TO MINIMUM DISTANCE OF 100 FEET ON EITHER SIDE OF THE RESOURCE.

8.4.3 SEDIMENT BARRIERS

DURING FROZEN CONDITIONS, SEDIMENT BARRIERS SHALL CONSIST OF WOOD WASTE FILTER BERMS AS FROZEN SOILS PREVENT PROPER INSTALLATION OF HAY BALES AND SILT FENCE.

8.4.4 GENERAL MULCHING

ALL FUTURE LOAM AND SEED AREAS SHALL BE CONSIDERED DENUDED UNTIL THEY HAVE BEEN LOAMED, SEEDED, AND MULCHED. HAY AND STRAW MULCH SHALL BE APPLIED AT TWICE THE NORMAL RATE, OR 150 LBS./1,000 S.F. (3 TONS/ACRE), AND SHALL BE PROPERLY ANCHORED. IN NO INSTANCE SHALL MULCH BE SPREAD ON TOP OF SNOW; SNOW SHALL BE REMOVED DOWN TO A MAXIMUM DEPTH OF ONE (1) INCH PRIOR TO MULCH APPLICATION.

AFTER EACH DAY OF FINAL GRADING, THE AREA SHALL BE PROPERLY STABILIZED WITH ANCHORED HAY, STRAW, OR EROSION CONTROL MATTING. AN AREA SHALL BE CONSIDERED STABILIZED WHEN EXPOSED SURFACES HAVE BEEN MULCHED WITH STRAW OR HAY AT A RATE OF 150 LBS./1,000 S.F. (3 TONS/ACRE) AND ADEQUATELY ANCHORED TO THE EXTENT THAT THE GROUND SURFACE IS NOT VISIBLE THROUGH THE MULCH. ALL MULCH SHALL BE ANCHORED BY PEG LINE, MULCH NETTING, TRACKING, OR WOOD CELLULOSE FIBER. MULCH SHALL BE CONSIDERED SUFFICIENT WHEN THE GROUND SURFACE IS NO LONGER VISIBLE.

8.4.5 SLOPE AND DITCH MULCHING

SLOPES SHALL NOT BE LEFT EXPOSED FOR ANY EXTENDED PERIOD OF TIME UNLESS FULLY MULCHED AND ANCHORED WITH PEG AND NETTING OR EROSION CONTROL BLANKET. MULCH SHALL BE APPLIED TO ALL SLOPES GREATER THAN 8 PERCENT AT A RATE OF 230 LBS./1,000 S.F. MULCH NETTING SHALL BE USED TO ANCHOR MULCH IN ALL DRAINAGE WAYS WITH SLOPES GREATER THAN 3 PERCENT, FOR ALL SLOPES EXPOSED TO DIRECT WINDS, AND FOR ALL OTHER SLOPES GREATER THAN 8 PERCENT. EROSION CONTROL BLANKETS SHALL BE USED IN LIEU OF MULCH IN ALL DRAINAGE WAYS WITH SLOPES GREATER THAN OR EQUAL TO 8 PERCENT. EROSION CONTROL MIX MAY BE SUBSTITUTED FOR EROSION CONTROL BLANKETS ON ALL SLOPES NOT ASSOCIATED WITH DITCHES.

8.4.6 SEEDING

BETWEEN THE DATES OF OCTOBER 15 AND APRIL 1, LOAM AND SEED SHALL NOT BE REQUIRED. DURING PERIODS OF ABOVE-FREEZING TEMPERATURES, FINISHED AREAS SHALL BE FINE GRADED AND PROTECTED WITH MULCH OR TEMPORARILY SEEDED AND MULCHED UNTIL FINAL TREATMENT CAN BE APPLIED. AFTER NOVEMBER 1 THE EXPOSED AREA HAS BEEN LOAMED AND FINAL GRADED WITH A UNIFORM SURFACE, THE AREA MAY BE DORMANT-SEEDED AT A RATE THREE TIMES THAT SPECIFIED FOR PERMANENT SEEDING AND MULCHED. DORMANT SEEDING MAY BE PLACED PRIOR TO THE PLACEMENT OF MULCH AND STAPLE-ANCHORED FABRIC NETTING. ALL DISTURBED AREAS RECEIVING DORMANT SEEDING SHALL RECEIVE FOUR (4) INCHES OF LOAM AND SHALL BE SEEDED AT A RATE OF 5 LBS./1,000 S.F. ALL AREAS SEEDED DURING THE WINTER SHALL BE INSPECTED IN THE SPRING FOR ADEQUATE CATCH. ALL AREAS INSUFFICIENTLY VEGETATED AT THIS TIME (LESS THAN 75 PERCENT CATCH) SHALL BE RE-VEGETATED WITH LOAM, SEED, AND MULCH. IF DORMANT SEEDING IS NOT USED, ALL DISTURBED AREAS SHALL BE RE-VEGETATED IN THE SPRING.

8.4.7 DEWATERING AND TEMPORARY STREAM DIVERSION

WATER FROM CONSTRUCTION TRENCH DEWATERING OR TEMPORARY STREAM DIVERSION SHALL PASS THROUGH A FILTER BAG OR SECONDARY CONTAINMENT STRUCTURE (E.G. HAY BALE LINED POOL) PRIOR TO DISCHARGE. A DISCHARGE LOCATION SHALL BE SELECTED THAT AVOIDS FLOODING, ICING, AND SEDIMENT DISCHARGE TO ANY PROTECTED RESOURCE. IN NO INSTANCE SHALL FILTER BAGS OR CONTAINMENT STRUCTURES BE LOCATED WITHIN 100 FEET OF A PROTECTED NATURAL RESOURCE.

8.4.8 INSPECTION AND MONITORING

MAINTENANCE MEASURES SHALL BE APPLIED AS NEEDED THROUGHOUT THE ENTIRE CONSTRUCTION PHASE. AFTER EACH RAINFALL EVENT, SNOWFALL EVENT, OR PERIOD OF THAWING AND RUNOFF, CONTRACTOR SHALL PERFORM A VISUAL INSPECTION OF ALL INSTALLED EROSION CONTROL MEASURES AND PERFORM REPAIRS AS NEEDED TO ENSURE THEIR PROPER CONTINUOUS FUNCTION. IN THE SPRING FOLLOWING TEMPORARY AND/OR FINAL SEEDING AND MULCHING, CONTRACTOR SHALL INSPECT AND REPAIR ANY DAMAGED AND/OR UNESTABLISHED AREAS. VEGETATIVE COVER IS CONSIDERED ESTABLISHED WHEN A MINIMUM 85 TO 90 PERCENT OF VEGETATED AREAS EXHIBIT VIGOROUS GROWTH.

8.5 STANDARDS FOR TIMELY STABILIZATION OF CONSTRUCTION SITES DURING WINTER

8.5.1 DITCHES AND CHANNELS

CONTRACTOR SHALL CONSTRUCT AND STABILIZE ALL STONE-LINED DITCHES AND CHANNELS ON SITE BY NOVEMBER 15 AND ALL GRASS-LINED DITCHES AND CHANNELS ON SITE BY SEPTEMBER 15. IF CONTRACTOR FAILS TO STABILIZE A GRASS-LINED DITCH BY SEPTEMBER 15, CONTRACTOR SHALL TAKE ONE OF THE FOLLOWING ACTIONS TO STABILIZE THE DITCH FOR LATE FALL AND WINTER.

- 1. INSTALL SOD LINING IN DITCH -CONTRACTOR SHALL LINE DITCHES WITH PROPERLY INSTALLED SOD BY OCTOBER 1. PROPER INSTALLATION INCLUDES PINNING THE SOD TO UNDERLYING SOIL WITH WIRE PINS, ROLLING THE SOD TO GUARANTEE CONTACT BETWEEN SOD AND UNDERLYING SOIL, WATERING THE SOD TO PROMOTE ROOT GROWTH INTO UNDERLYING SOIL, AND ANCHORING THE SOD WITH JUTE OR PLASTIC MESH TO PREVENT SOD STRIPS FROM SLOUGHING DURING FLOW CONDITIONS.
- 2. INSTALL STONE LINING IN DITCH -CONTRACTOR SHALL LINE DITCHES WITH STONE RIPRAP BY NOVEMBER 15. APPLICANT SHALL RETAIN A REGISTERED PROFESSIONAL ENGINEER TO DETERMINE STONE SIZE AND LINING THICKNESS REQUIRED TO WITHSTAND ANTICIPATED FLOW VELOCITIES AND FLOW DEPTHS WITHIN THE DITCH. IF NECESSARY, CONTRACTOR SHALL RE-GRADE THE DITCH PRIOR TO PLACING STONE IN ORDER TO PREVENT A REDUCTION IN DITCH CROSS-SECTIONAL AREA.

8.5.2 DISTURBED SLOPES

CONTRACTOR SHALL CONSTRUCT AND STABILIZE STONE-LINED SLOPES BY NOVEMBER 15. ALL SLOPES TO BE VEGETATED SHALL BE SEEDED AND MULCHED BY SEPTEMBER 15. THE DEPARTMENT CONSIDERS ANY AREA HAVING A GRADE GREATER THAN 15 PERCENT TO BE A SLOPE. IF CONTRACTOR FAILS TO STABILIZE ANY SLOPE TO BE VEGETATED BY SEPTEMBER 15, CONTRACTOR SHALL TAKE ONE OF THE FOLLOWING ACTIONS TO STABILIZE THE SLOPE FOR LATE FALL AND WINTER.

- 1. STABILIZE SOIL WITH TEMPORARY VEGETATION AND EROSION CONTROL MATS -CONTRACTOR SHALL SEED THE DISTURBED SLOPE WITH WINTER RYE AT A RATE OF 3 LBS./1,000 S.F. AND APPLY EROSION CONTROL MATS OVER THE MULCHED SLOPE BY OCTOBER 1. CONTRACTOR SHALL MONITOR RYE GROWTH OVER THE FOLLOWING 30 DAYS. IF THE RYE FAILS TO GROW AT LEAST THREE INCHES OR COVER AT LEAST 75 PERCENT OF THE DISTURBED SLOPE BY NOVEMBER 1, CONTRACTOR SHALL COVER THE SLOPE WITH A LAYER OF WOODWASTE COMPOST AS DESCRIBED IN ITEM 3 BELOW OR WITH STONE RIPRAP AS DESCRIBED IN ITEM 4 BELOW.
- 2. STABILIZE SLOPE WITH SOD -CONTRACTOR SHALL STABILIZE THE DISTURBED SLOPE WITH PROPERLY INSTALLED SOD BY OCTOBER 1. PROPER SOD INSTALLATION INCLUDES PINNING TO THE UNDERLYING SOIL WITH WIRE PINS, ROLLING TO GUARANTEE CONTACT WITH UNDERLYING SOIL, WATERING TO PROMOTE ROOT GROWTH INTO UNDERLYING SOIL, AND ANCHORING WITH JUTE OR PLASTIC MESH TO PREVENT SOD STRIPS FROM SLOUGHING DURING FLOW CONDITIONS. CONTRACTOR SHALL NOT USE LATE-SEASON SOD INSTALLATION TO STABILIZE SLOPES HAVING A GRADE GREATER THAN 33 PERCENT (3H:1V).
- 3. STABILIZE SLOPE WITH WOODWASTE COMPOST -CONTRACTOR SHALL PLACE A 6-INCH WOODWASTE COMPOST LAYER ON THE DISTURBED SLOPE BY NOVEMBER 15. PRIOR TO PLACING THE WOODWASTE COMPOST, CONTRACTOR SHALL REMOVE ANY SNOW ACCUMULATION ON THE DISTURBED SLOPE. CONTRACTOR SHALL NOT USE WOODWASTE COMPOST TO STABILIZE SLOPES HAVING GRADES GREATER THAN 50 PERCENT (2H:1V) OR HAVING GROUNDWATER SEEPS ON THE SLOPE FACE.
- 4. STABILIZE SLOPE WITH STONE RIPRAP -CONTRACTOR SHALL PLACE A LAYER OF STONE RIPRAP ON THE SLOPE BY NOVEMBER 15. APPLICANT SHALL RETAIN A REGISTERED PROFESSIONAL ENGINEER TO DETERMINE STONE SIZE, LINING THICKNESS, AND FILTER LAYER DESIGN REQUIRED FOR STABILITY.

8.5.3 DISTURBED SOILS

CONTRACTOR SHALL SEED AND MULCH ALL AREAS OF DISTURBED SOIL HAVING A GRADE OF LESS THAN 15 PERCENT BY SEPTEMBER 15. IF CONTRACTOR FAILS TO STABILIZE THESE SOILS BY THIS DATE, CONTRACTOR SHALL TAKE ONE OF THE FOLLOWING ACTIONS TO STABILIZE THE SOIL FOR LATE FALL AND WINTER.

- 1. STABILIZE SOIL WITH TEMPORARY VEGETATION -CONTRACTOR SHALL SEED THE DISTURBED SOIL WITH WINTER RYE AT A RATE OF 3 LBS./1,000 S.F., LIGHTLY MULCH THE SEEDED SOIL WITH HAY OR STRAW AT A RATE OF 75 LBS./1,000 S.F., AND ANCHOR THE MULCH WITH PLASTIC NETTING BY OCTOBER 1. CONTRACTOR SHALL MONITOR RYE GROWTH OVER THE NEXT 30 DAYS. IF THE RYE FAILS TO GROW AT LEAST THREE INCHES OR COVER AT LEAST 75 PERCENT OF THE DISTURBED SOIL BEFORE NOVEMBER 15, CONTRACTOR SHALL MULCH THE AREA FOR OVER-WINTER PROTECTION AS DESCRIBED IN ITEM 3 BELOW.
- 2. STABILIZE SOIL WITH SOD -CONTRACTOR SHALL STABILIZE THE DISTURBED SOIL WITH PROPERLY INSTALLED SOD BY OCTOBER 1. PROPER SOD INSTALLATION INCLUDES PINNING TO THE UNDERLYING SOIL WITH WIRE PINS, ROLLING TO GUARANTEE CONTACT WITH UNDERLYING SOIL, WATERING TO PROMOTE ROOT GROWTH INTO UNDERLYING SOIL, AND ANCHORING WITH JUTE OR PLASTIC MESH TO PREVENT SOD STRIPS FROM SLOUGHING DURING FLOW CONDITIONS.
- 3. STABILIZE SOIL WITH MULCH -CONTRACTOR SHALL MULCH THE DISTURBED SOIL BY SPREADING HAY OR STRAW AT A RATE OF 150 LBS./1,000 S.F. TO THE EXTENT THAT NO SOILS IS VISIBLE THROUGH THE MULCH BY NOVEMBER 15. PRIOR TO APPLICATION OF MULCH, CONTRACTOR SHALL REMOVE ANY SNOW ACCUMULATION FROM THE DISTURBED AREA. IMMEDIATELY AFTER APPLYING, CONTRACTOR SHALL ANCHOR THE MULCH WITH PLASTIC NETTING TO PROTECT AGAINST DIRECT WIND.

8.6 IMPLEMENTATION SCHEDULE

THE FOLLOWING CONSTRUCTION SEQUENCE SHALL BE REQUIRED TO OPTIMIZE THE EFFECTIVENESS OF THE EROSION AND SEDIMENTATION CONTROL MEASURES. THE CONTRACTOR MAY PROPOSE ALTERNATE CONSTRUCTION SEQUENCING PROVIDED THAT THE EFFECTIVENESS OF THE OVERALL EROSION AND SEDIMENTATION CONTROL MEASURES IS PRESERVED:

NOTES:
 * FOR ALL GRADING ACTIVITIES, THE CONTRACTOR SHALL EXERCISE EXTREME CAUTION NOT TO OVEREXPOSE THE SITE BY LIMITING THE DISTURBED AREA.
 * PERIMETER EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE INSTALLED CONCURRENTLY WITH CLEARING AND GRUBBING OPERATIONS AND SHALL BE MAINTAINED BY THE CONTRACTOR AS NECESSARY AS CONSTRUCTION PROGRESSES. ADJACENT ROADS SHALL BE SWEEPED AND WATER APPLIED TO CONTROL DUST.
 CRUSHED-STONE-STABILIZED CONSTRUCTION ENTRANCE SHALL BE INSTALLED AT THE ACCESS POINTS.

- 1. INSTALL PERIMETER EROSION CONTROL MEASURES AND CATCH BASIN INLET PROTECTION AS SHOWN ON SHEETS WITHIN PLANSET.
- 2. CLEAR AND GRUB WORK AREA, BEING COGNIZANT OF NOT OVER EXPOSING TOO MUCH AREA. STOCKPILES SHALL NOT BE PLACED WITHIN 100 FEET OF A PROTECTED RESOURCE.
- 3. COMMENCE EXCAVATION FOR INSTALLATION OF PRECAST CONCRETE BOX CULVERTS.
- 4. INSTALL PRECAST CONCRETE BOX CULVERT FROM NORTH OF MAINE AVENUE TO WITHIN NORTHPORT BUSINESS PARK.
- 5. STABILIZE DISTURBED AREA, EITHER BITUMINOUS PAVEMENT OR GRASS.

8.7 EROSION, SEDIMENTATION AND STABILIZATION CONTROL PLAN

EROSION AND SEDIMENTATION CONTROL PLANS ARE INCLUDED IN THE PLAN SET.

8.8 DETAILS AND SPECIFICATIONS

EROSION AND SEDIMENTATION DETAILS, NOTES, AND SPECIFICATIONS ARE INCLUDED IN THE PLAN SET.

8.9 PROVISIONS FOR MAINTENANCE OF THE EROSION/SEDIMENTATION CONTROL FEATURES

THE PROPOSED PROJECT IS SUBJECT TO THE REQUIREMENTS OF MDEP NATURAL RESOURCE PROTECTION ACT PERMIT. THE CONTRACTOR SHALL PREPARE A LIST AND DESIGNATE BY NAME, ADDRESS, AND TELEPHONE NUMBER ALL INDIVIDUALS WHO WILL BE RESPONSIBLE FOR IMPLEMENTATION, INSPECTION, AND MAINTENANCE OF ALL EROSION AND SEDIMENTATION CONTROL MEASURES IDENTIFIED WITHIN THIS NARRATIVE AND AS CONTAINED IN THE EROSION AND SEDIMENTATION CONTROL PLAN OF THE CONTRACT DRAWINGS. SPECIFIC RESPONSIBILITIES OF THE CONTRACTOR'S INSPECTOR(S) SHALL INCLUDE:

- 1. EXECUTION OF THE CONTRACTOR/SUBCONTRACTOR CERTIFICATION, WHICH WILL BE CONTAINED IN ATTACHMENT A WITH THE FINAL APPLICATION SUBMISSION, BY ANY AND ALL PARTIES RESPONSIBLE FOR EROSION CONTROL MEASURES ON SITES AS REQUIRED BY THE ENVIRONMENTAL PROTECTION AGENCY.
- 2. ASSURING AND CERTIFYING THE OWNER'S CONSTRUCTION SEQUENCE IS IN CONFORMANCE WITH THE SPECIFIED SCHEDULE OF THIS SECTION. WEEKLY CERTIFICATION STATING COMPLIANCE, ANY DEVIATIONS, AND CORRECTIVE MEASURES NECESSARY TO COMPLY WITH THE EROSION CONTROL REQUIREMENTS OF THIS NARRATIVE SHALL BE PREPARED AND SIGNED BY THE INSPECTOR(S).
- 3. IN ADDITION TO WEEKLY CERTIFICATIONS, THE INSPECTOR(S) SHALL MAINTAIN WRITTEN REPORTS RECORDING CONSTRUCTION ACTIVITIES ON SITE WHICH INCLUDE:
 * DATES WHEN MAJOR GRADING ACTIVITIES OCCUR IN A PARTICULAR AREA.
 * DATES WHEN MAJOR CONSTRUCTION ACTIVITIES CEASE IN A PARTICULAR AREA, EITHER TEMPORARILY OR PERMANENTLY.
 * DATES WHEN AN AREA HAS BEEN STABILIZED.
- 4. INSPECTION OF THIS PROJECT WORK SITE SHALL OCCUR ON A WEEKLY BASIS AND BEFORE AND AFTER STORM EVENTS (0.5 INCHES OR MORE RAINFALL) DURING CONSTRUCTION UNTIL PERMANENT EROSION CONTROL MEASURES HAVE BEEN PROPERLY INSTALLED AND THE SITE HAS BEEN STABILIZED. INSPECTION OF THE PROJECT WORK SITE SHALL INCLUDE:
 * IDENTIFICATION OF PROPER EROSION CONTROL MEASURE INSTALLATION IN ACCORDANCE WITH THE EROSION CONTROL DETAIL SHEET OR AS SPECIFIED IN THIS NARRATIVE.
 * DETERMINATION THAT EACH EROSION CONTROL MEASURE IS OPERATING PROPERLY. IF NOT, IDENTIFY DAMAGE TO THE CONTROL DEVICE AND DETERMINE REMEDIAL MEASURES NEEDED.
 * IDENTIFICATION OF AREAS THAT APPEAR VULNERABLE TO EROSION AND DETERMINATION OF ADDITIONAL EROSION CONTROL MEASURES THAT SHOULD BE USED TO IMPROVE CONDITIONS.
 * INSPECTION OF RECENTLY SEEDED AREAS TO DETERMINE PERCENT CATCH OF VEGETATION. A MINIMUM CATCH OF 90 PERCENT IS REQUIRED PRIOR TO REMOVAL OF EROSION CONTROL MEASURES.
 * REMOVAL OF ACCUMULATED SILT/SEDIMENT WHEN DEPTH OF SEDIMENT REACHES 50 PERCENT OF THE BARRIER HEIGHT; REMOVAL OF ACCUMULATED SILT/SEDIMENT FROM BEHIND SILT FENCING WHEN DEPTH OF THE SEDIMENT REACHES SIX (6) INCHES.
- 5. IF INSPECTION OF THE SITE INDICATES A CHANGE SHOULD BE MADE TO THE EROSION CONTROL PLAN, EITHER TO IMPROVE EFFECTIVENESS OR TO CORRECT A SITE-SPECIFIC DEFICIENCY, THE INSPECTOR SHALL IMMEDIATELY IMPLEMENT THE CORRECTIVE MEASURE AND NOTIFY THE OWNER OF THE CHANGE.
- 6. ONCE CONSTRUCTION HAS BEEN COMPLETED, LONG-TERM MAINTENANCE OF CATCH BASINS SHALL BE THE RESPONSIBILITY OF THE OWNER. CATCH BASIN SUMPS SHALL BE INSPECTED IN APRIL AND OCTOBER OF EACH YEAR. SEDIMENT SHALL BE REMOVED WHEN DEPTH OF SEDIMENT REACHES ONE-HALF THE DEPTH OF THE SUMP.
- 7. ALL CERTIFICATIONS, INSPECTION FORMS, AND WRITTEN REPORTS PREPARED BY THE INSPECTOR(S) SHALL BE FILED WITH THE OWNER, WITH AN ADDITIONAL COPY SUBMITTED TO THE CITY. ALL WRITTEN CERTIFICATIONS, INSPECTION FORMS, AND WRITTEN REPORTS MUST BE FILED WITHIN ONE (1) WEEK OF THE INSPECTION DATE. A SAMPLE INSPECTION FORM WILL BE ENCLOSED IN ATTACHMENT A AS PART OF THE FINAL APPLICATION SUBMISSION.
- 8. DUE TO THE SIZE OF THE PROJECT, THE APPLICANT UNDERSTANDS THAT THE MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION WILL REQUIRE A THIRD PARTY INSPECTOR FOR EROSION AND SEDIMENTATION CONTROL. THE APPLICANT WILL CHOOSE AND PROPOSE TO RETAIN A SPECIFIC THIRD PARTY INSPECTOR FOR THE FINAL APPLICATION SUBMISSION.

8.10 PRECONSTRUCTION CONFERENCE

PRIOR TO ANY ON-SITE CONSTRUCTION, THE SITE DESIGN ENGINEER AND REPRESENTATIVES OF THE CONTRACTOR SHALL ARRANGE FOR AND HOLD A MEETING WITH THE OWNER TO DISCUSS SCHEDULING OF THE SITE CONSTRUCTION. ON OR BEFORE THAT MEETING, THE CONTRACTOR SHALL PREPARE A DETAILED SCHEDULE AND MARKED-UP SITE PLAN INDICATING AREAS AND COMPONENTS OF WORK WITH KEY DATES SHOWING DATE OF DISTURBANCE AND COMPLETION OF WORK. IF DISTURBED AREAS ARE NOT TO BE FINISHED (LOAMED, SEEDED, AND MULCHED) WITHIN SEVEN (7) DAYS, THE SCHEDULING SHALL INDICATE THOSE AREAS TO BE PROTECTED WITH TEMPORARY SEEDING/MULCH. THREE COPIES OF THE SCHEDULE AND MARKED-UP SITE PLAN SHALL BE PROVIDED TO THE OWNER. TEMPORARY SEED MIXTURE SHALL BE ANNUAL RYE GRASS APPLIED AT A RATE OF 0.9 LBS./1,000 S.F.

LOD PROJECT NAME: N/A	DRAWING NAME: 1343.24-DET-AS BUILT	FIELD BOOK USED: N/A
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DESIGNED BY: R. GORRILL	DRAWN BY: B. VANDAM	CHECKED BY: W. HASKELL	SCALE: AS NOTED	DATE: 07/23/2009
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SEE COVER SHEET FOR SIGNATURE

FALL BROOK PHASE 3 DETAILS EROSION AND SEDIMENTATION CONTROL NOTES

CITY OF PORTLAND, MAINE PUBLIC SERVICES DEPARTMENT ENGINEERING SECTION
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SHEET # 18 OF 18
VAULT PLAN NUMBER

AS-BUILT

AS-BUILT

DECEMBER 01, 2011

ALL AS-BUILT INFORMATION PROVIDED BY
D&C CONSTRUCTION

AS-BUILT DRAWING PREPARED BY
GORRILL-PALMER CONSULTING ENGINEERS



Gorrill-Palmer Consulting Engineers, Inc.

PO Box 1237
15 Shaker Road
Gray, ME 04039

Engineering Excellence Since 1998

207-657-6910
FAX: 207-657-6912
E-Mail: mailbox@gorrillpalmer.com