

CITY OF PORTLAND PUBLIC SERVICES DEPARTMENT

CONTRACT DRAWINGS

BAXTER BOULEVARD NORTH STORAGE CONDUIT

BID NUMBER: 4213

INDEX OF PLANS

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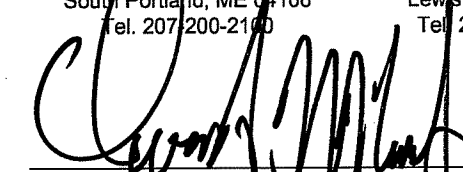
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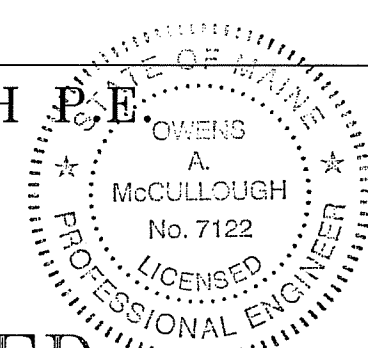
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TECHNICS

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DATE
11-16-12

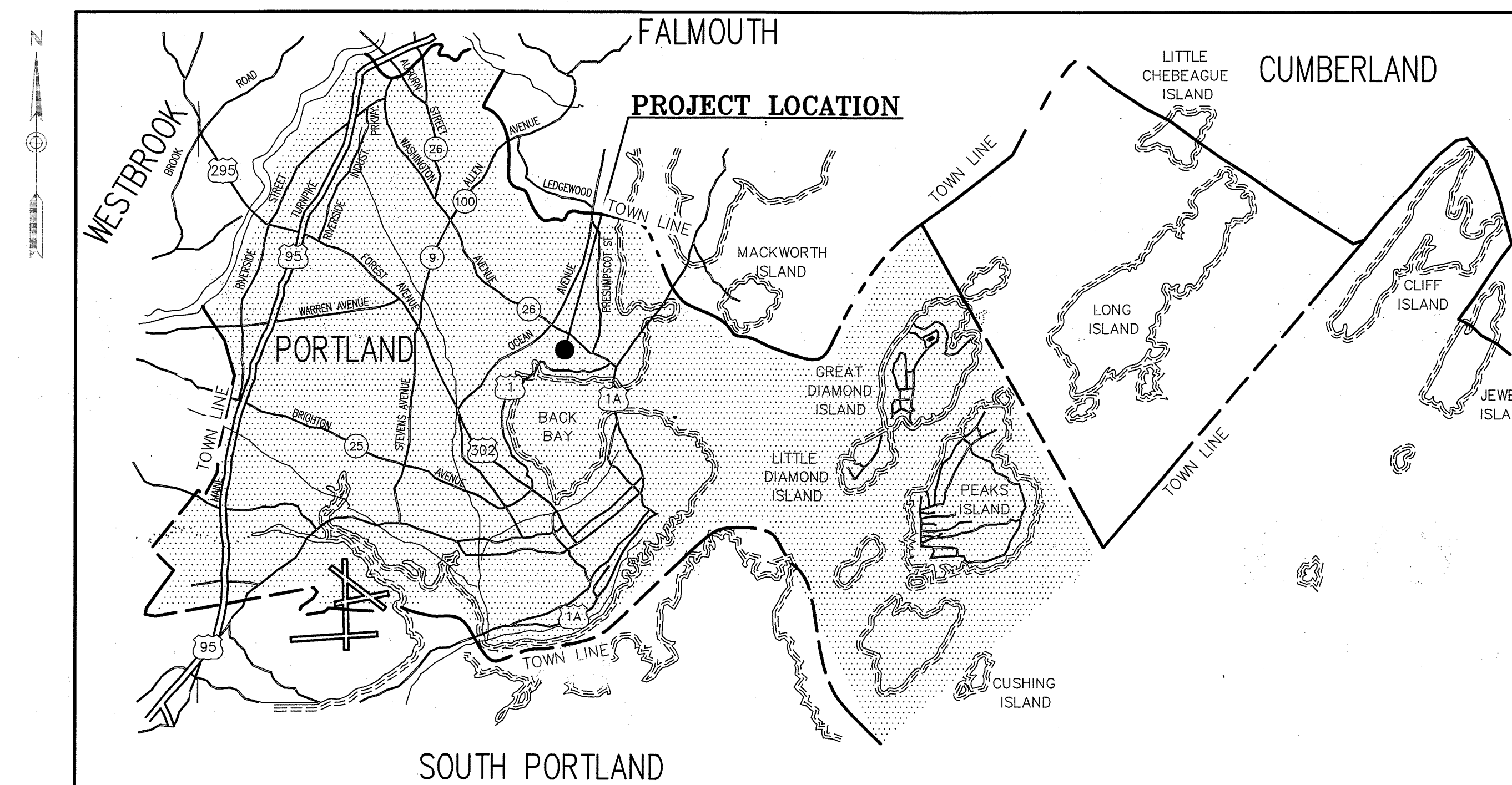
YEAR APPROVED
NOVEMBER 2012

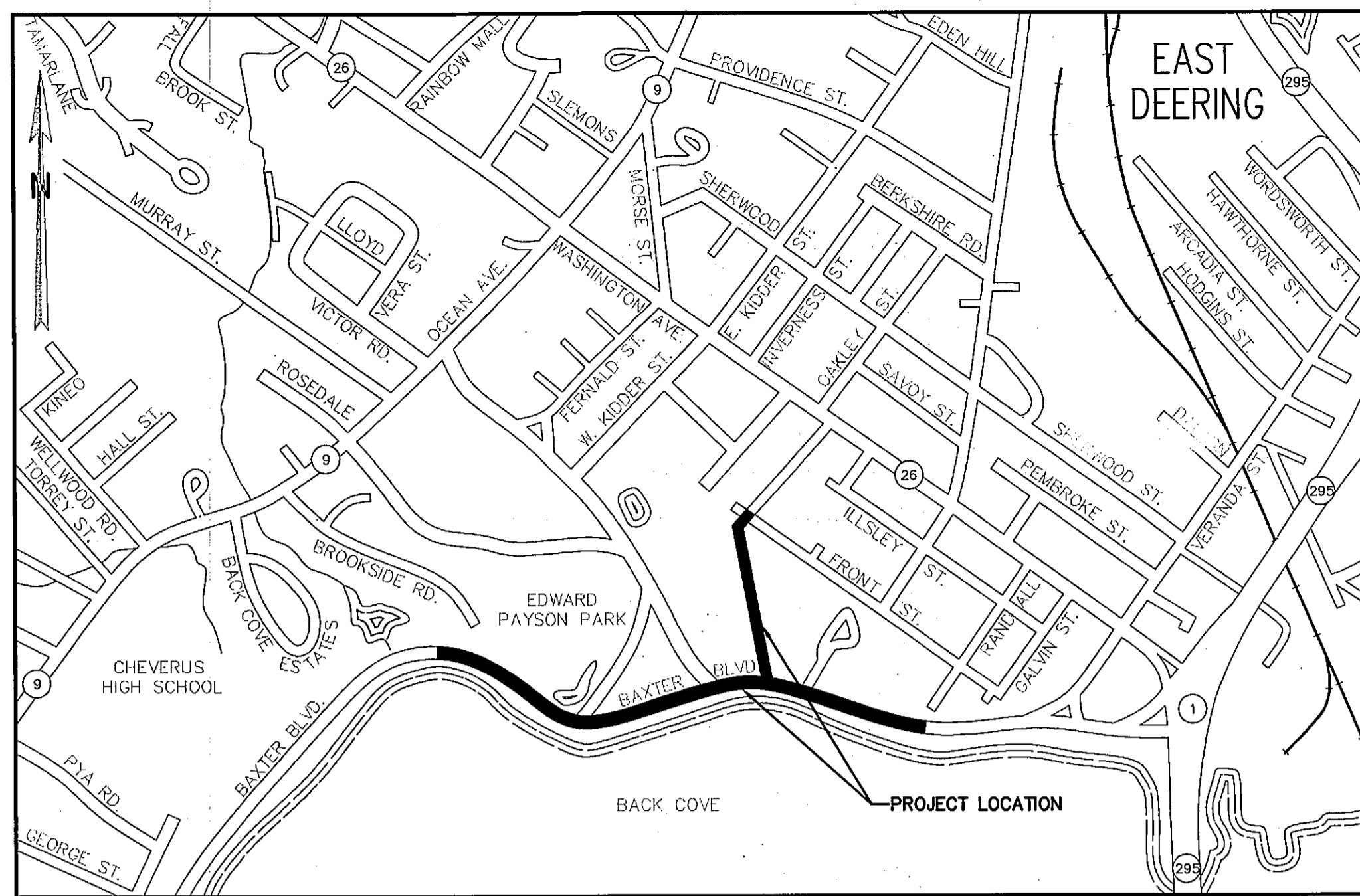
PREPARED FOR:
BRADLEY A. ROLAND, P.E.
PROJECT ENGINEER
PUBLIC SERVICES DEPARTMENT


KATHERINE EARLEY, P.E.
ENGINEERING MANAGER

11/16/12
DATE

NOVEMBER 2012





LOCATION MAP
NOT TO SCALE

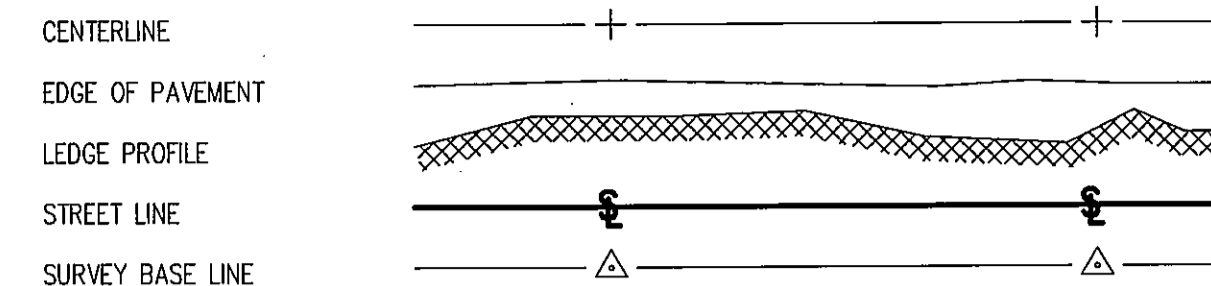
GENERAL NOTES

- LOCATIONS OF UTILITIES ARE APPROXIMATE AND IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO HAVE ALL THE UTILITIES LOCATE THEIR SERVICES PRIOR TO THE START OF CONSTRUCTION. THE LOCATION, TYPE AND SIZE OF EXISTING PIPES, DUCTS, CONDUITS AND OTHER UNDERGROUND UTILITIES AND STRUCTURES SHOWN ON THE DRAWINGS ARE NOT WARRANTED TO BE EXACT NOR IS IT WARRANTED THAT ALL UNDERGROUND UTILITIES AND STRUCTURES ARE SHOWN. INFORMATION SHOWN IS CONSIDERED APPROXIMATE BOTH AS TO SIZE AND LOCATION AND INDICATED ON THE DRAWINGS TO GIVE BIDDERS A GENERAL IDEA OF EXISTING CONDITIONS. IT IS UNDERSTOOD AND AGREED THAT THE CONTRACTOR SHALL NOT RELY UPON THESE DRAWINGS FOR SUCH INFORMATION AND SHALL MAKE EXAMINATIONS IN THE FIELD BY VARIOUS AVAILABLE METHODS AND SHALL OBTAIN INFORMATION FROM UTILITY CORPORATIONS AND INDIVIDUALS AS TO THE LOCATION OF ALL SUBSURFACE STRUCTURES, BOTH PUBLIC AND PRIVATE PRIOR TO COMMENCEMENT OF CONSTRUCTION. DEPTH OF SERVICES ARE UNKNOWN AND SHALL BE FIELD VERIFIED BY THE CONTRACTOR. EXCAVATING TEST PITS AS NECESSARY TO VERIFY UTILITY LOCATIONS AND DEPTHS SHALL BE INCIDENTAL TO THIS PROJECT.
- PRIOR TO THE BEGINNING OF CONSTRUCTION, THE CONTRACTOR SHALL SECURE A STREET OPENING PERMIT FROM THE PORTLAND PUBLIC SERVICES DEPARTMENT. NO FEE WILL BE CHARGED FOR THIS PERMIT.
- PROPERTY MARKERS AND STREET LINE MONUMENTS SHALL BE PROPERLY PROTECTED AND SHALL NOT BE DISTURBED. IF DISTURBED, THEY SHALL BE REPLACED BY A LICENSED SURVEYOR AT THE CONTRACTOR'S EXPENSE.
- THE CONTRACTOR IS REQUIRED TO PROVIDE A SECURE PROJECT WORK AREA AND SHALL PROVIDE AND INSTALL 8' TEMPORARY CHAIN LINK SAFETY FENCING (PAY ITEM 607.175) FOR ALL ACTIVE /STAGING AREAS THROUGHOUT CONSTRUCTION. THE BAXTER BOULEVARD TRAIL SHALL BE FENCED THROUGH ALL ACTIVE CONSTRUCTION AREAS INCLUDING SAFETY GATES INSTALLED AT INTERVALS APPROVED BY THE CITY.
- ALL EXISTING CATCH BASINS, MANHOLES, CONNECTIONS, CONDUIT AND PIPING SHALL BE CLEANED AND LEFT IN SATISFACTORY OPERATING CONDITION AFTER CONSTRUCTION HAS BEEN COMPLETED. NO SEPARATE PAYMENT WILL BE MADE FOR THIS WORK.
- ALL LAWN AREAS, WALKWAYS, AND DRIVEWAYS OUTSIDE THE WORK AREA, DAMAGED BY THE CONTRACTOR, SHALL BE REPAIRED BY THE CONTRACTOR AT NO EXPENSE TO THE CITY.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PRESERVATION OF ALL TREES AND SHRUBS ON THE PROJECT WHICH ARE NOT TO BE REMOVED.
- EXISTING PAVEMENT SHALL BE SAW CUT AND BUTTED TO THE NEW PAVEMENT. NO FEATHERING OF PAVEMENT WILL BE PERMITTED. DRIVEWAY BUTT JOINTS ARE INCIDENTAL TO THE CONTRACT AND SHALL NOT REQUIRE MEASUREMENT.
- EXISTING DRAINAGE STRUCTURES SHALL NOT BE DISTURBED UNLESS OTHERWISE NOTED IN THE DRAWINGS OR BY THE CITY REPRESENTATIVE.
- BEFORE CONNECTING NEW PIPES TO AN EXISTING SEWER LINE, THE CONTRACTOR SHALL NOTIFY THE SEWER MAINTENANCE DIVISION OR THE CITY OF PORTLAND PUBLIC SERVICES DEPARTMENT. NO WORK SHALL BE DONE WITHOUT THEIR APPROVAL.
- NO ADDITIONAL PAYMENT WILL BE MADE FOR GRADING SIDE SLOPES OF DRIVEWAYS.
- 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 REBUTTING PAVEMENT AS REQUIRED. THIS WORK MAY BE NECESSARY AFTER THE FINAL ACCEPTANCE OF WORK OR PRIOR TO THE END OF THE ONE YEAR GUARANTEE. THIS WORK SHALL BE DONE AT THE CONTRACTOR'S EXPENSE.
- DIVERSION STRUCTURES AND CHECK VALVE VAULTS SHALL BE REINFORCED PRECAST STRUCTURES (PAY ITEMS 543.73 AND 543.75).
- ALL MANHOLE FRAMES SHALL BE SUPPLIED WITH SOLID MANHOLE COVERS. THE RIM ELEVATION OF PROPOSED STORM AND SEWER MANHOLES SHALL BE SET AT THE NEW FINISHED PAVEMENT SURFACE GRADE. WINTERIZATION WILL BE REQUIRED. SEE STANDARD DETAIL.
- NEW CATCH BASINS SHALL BE INSTALLED WITH A TYPE A-4 CATCH BASIN INLET STONE INCIDENTAL TO PAY ITEM 604.13. RIM ELEVATIONS FOR CATCH BASINS ARE GIVEN AT THE FACE OF THE CURB AND TAKE INTO ACCOUNT THE 3" DEPRESSION, PLACE HOT BITUMINOUS GRADING "C" AROUND CATCH BASINS NOT IN COBBLE STONE GUTTER (3' OUTSIDE OF FRAME, 2" THICK). PLACE 6" OF AGGREGATE SUBBASE GRAVEL UNDER THIS PAVEMENT. WINTERIZATION WILL BE REQUIRED.
- ON ALL "REMOVE" STRUCTURES, THE CONTRACTOR SHALL REMOVE THE STRUCTURE ENTIRELY. ALL EXISTING GRANITE CATCH BASIN STONES, MANHOLE FRAMES AND COVERS TO BE REMOVED SHALL BE DELIVERED TO THE CITY STOCK YARD AS DIRECTED. REMOVAL OF EXISTING STRUCTURAL CONCRETE, CONCRETE, EXCAVATED STRUCTURES, MANHOLES, CATCH BASINS, MORTARED STONE MASONRY, CONCRETE MASONRY, WOODEN TIMBERS/PILES AND ANY OTHER STRUCTURAL ELEMENTS ENCOUNTERED DURING CONSTRUCTION ARE INCIDENTAL TO THE CONDUIT STORAGE AND ASSOCIATED PIPE PAY ITEMS. NO SEPARATE PAYMENT WILL BE MADE FOR THIS WORK.
- REMOVAL OF EXISTING STORM DRAINS, SEWER PIPES OR OTHER PIPE STRUCTURES, BACKFILLING AND ALL ASSOCIATED WORK SHALL BE CONSIDERED INCIDENTAL TO THE COSTS OF CONSTRUCTION. NO EXTRA PAYMENT WILL BE MADE.
- ALL TERMINAL MANHOLES SHALL HAVE CHANNELS CONSTRUCTED STRAIGHT THROUGH THE MANHOLE.
- THE CONTRACTOR SHALL PROVIDE ALL LABOR, EQUIPMENT AND MATERIALS AS REQUIRED TO PERFORM THE WORK AS INDICATED ON THE DRAWINGS AND IN THE SPECIFICATIONS. ALL WORK SHALL BE COMPLETED IN ACCORDANCE WITH THE APPLICABLE FEDERAL, STATE AND LOCAL CODES.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE LAYOUT OF ALL PROPOSED WORK AS SHOWN ON THE DRAWINGS (STATIONS AND OFFSETS FOR MANHOLES AND OTHER STRUCTURES ARE SHOWN ON THE DRAWINGS TO THE CENTER OF EACH). ADDITIONALLY, THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL "AS-BUILT" INFORMATION AS REQUIRED IN THE SPECIFICATION.

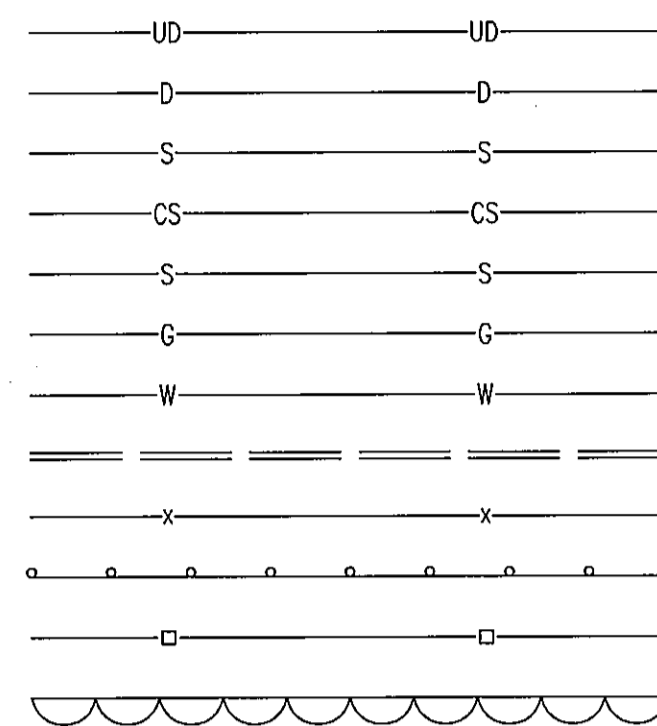
- THE EXISTING COLLECTION SYSTEM INCLUDING PRECAST STORAGE CONDUIT, DIVERSION STRUCTURES, GRAVITY SEWERS AND STORM DRAINS SHALL REMAIN FULLY OPERATIONAL DURING CONSTRUCTION UNTIL PROJECT IS COMPLETED AND ACCEPTED BY OWNER. THE CONTRACTOR SHALL FULLY COORDINATE CONSTRUCTION ACTIVITIES WITH THE OWNER'S OPERATIONS TO MINIMIZE ADVERSE IMPACTS ON THEIR EXISTING OPERATIONS. THE COST OF ADDITIONAL WORK REQUIRED TO MAINTAIN EXISTING OPERATIONS THROUGHOUT CONSTRUCTION OPERATIONS WILL NOT BE ELIGIBLE FOR PAYMENT AS AN EXTRA UNDER A CHANGE ORDER; RATHER, THESE COSTS WILL BE CONSIDERED AS "INCIDENTAL" TO THE BIDS SUBMITTED FOR THIS CONTRACT. ALSO, THE NECESSITY TO COORDINATE CONSTRUCTION ACTIVITIES WITH OWNER OPERATIONS WILL NOT BE CONSIDERED A VALID OR MERITORIOUS REASON FOR A DELAY CLAIM OR TIME EXTENSION ON THIS PROJECT.
- THERE MAY BE ONE OR MORE CONTRACTORS PERFORMING WORK IN THE PROJECT AREA. COORDINATION BETWEEN CONTRACTORS IS A PRIMARY RESPONSIBILITY OF EACH CONTRACTOR WITH THE INTENT TO AVOID DELAYS, COMPLICATIONS AND UNDO DISRUPTION OF CONSTRUCTION ACTIVITY.
- THE CONTRACTOR SHALL MAINTAIN TRAFFIC IN A SAFE MANNER AT ALL TIMES DURING CONSTRUCTION. THE MOST CURRENT EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) MANUAL FOR BOTH WORK ZONE AND TRAFFIC CONTROL REQUIREMENTS SHALL APPLY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CREATING A TRAFFIC CONTROL PLAN IN ACCORDANCE WITH SECTION 652 (PAY ITEM 652.39).
- EXISTING FACILITIES AND IMPROVEMENTS (I.E. LIGHT POLES, SIGNS, ETC.) SHALL BE REMOVED AND REPLACED OR PROTECTED AS REQUIRED DURING CONSTRUCTION AND SHALL BE CONSIDERED INCIDENTAL TO THE RELATED PAY ITEMS. BRACING OF UTILITY POLES, WHERE REQUIRED, SHALL BE INCIDENTAL TO THE PROJECT.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PRESERVATION OF ALL TREES ON THE PROJECT WHICH ARE NOT CALLED TO BE REMOVED. EQUIPMENT AND MATERIALS SHALL NOT BE STORED OVER THE ROOT ZONE WHICH SHALL BE DEFINED AS THE AREA ENCOMPASSED BY THE DRIFLINE. WHENEVER POSSIBLE, OTHER PLANTINGS SHALL BE PRESERVED BY WHATEVER METHOD NECESSARY INCLUDING TRANSPLANTING AND/OR TEMPORARY RELOCATION. THE ASSOCIATED COSTS ARE INCIDENTAL TO THE PROJECT. ANY TREES DAMAGED BY THE CONTRACTOR'S OPERATIONS SHALL BE REPAIRED USING APPROVED TREE DRESSING OR PAINT IN ACCORDANCE WITH THE APPROPRIATE PROVISIONS OF SECTION 201 OF THE STANDARD SPECIFICATIONS. ANY TREE DAMAGED BY THE CONTRACTOR SHALL RESULT IN A FINANCIAL PENALTY OF \$1,500 FOR EACH INCIDENCE. DAMAGE SHALL INCLUDE ANY AND ALL IMPACTS TO TREES TO INCLUDE BUT NOT LIMITED TO LIMB/TREE BREAKAGE, DAMAGE TO TREE TRUNKS, ROOTS STRUCTURE AND ANY INCIDENTAL IMPACTS.
- ALL CONNECTIONS OF PIPING TO EXISTING FACILITIES SHALL BE CONSIDERED INCIDENTAL. THIS INCLUDES ALL WORK REQUIRED TO CORE HOLE, INSTALLATION OF WATERTIGHT CONNECTIONS, AND ALL ASSOCIATED WORK.
- DELIVERED WITHIN TEN (10) CALENDAR DAYS OF THE CONTRACT SIGNING, THE CONTRACTOR SHALL SUBMIT THREE (3) COPIES OF A CONSTRUCTION OPERATIONS PLAN TO THE ENGINEER, AND CITY OF PORTLAND. THE COST OF THE OPERATIONS PLAN SHALL BE INCIDENTAL.
- ALL PIPE TRENCH EXCAVATIONS SHALL BE BACKFILLED AND "CLOSED" DURING CONTRACTOR NON-WORKING HOURS INCLUDING NIGHTS, HOLIDAYS AND WEEKENDS. THE CONTRACTOR MAY REQUEST IN WRITING TO THE ENGINEER AND OWNER TO SECURE OPEN EXCAVATION IN LIEU OF BACKFILL AND "CLOSED." NOT ALLOWING A SECURE OPEN EXCAVATION SHALL NOT BE A BASIS FOR CLAIMS AGAINST THE OWNER.
- THERE IS A POTENTIAL THAT THE WORK OF THIS CONTRACT WILL INVOLVE THE EXCAVATION OF CONTAMINATED SOIL AND POSSIBLE EXPOSURE TO CONTAMINATED GROUNDWATER BASED ON HISTORIC USES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COST OF HANDLING CONTAMINATED SOIL PER PAY ITEM 203.30 AND CONTAMINATED GROUNDWATER PER PAY ITEM 203.32.
- ENVIRONMENTAL GEOPROBES AND TEST PITS WERE COMPLETED BETWEEN OCTOBER 2011 AND NOVEMBER 2011. REFERENCE ENVIRONMENTAL SUBSURFACE INVESTIGATION REPORT IN APPENDIX OF THE SPECIFICATIONS. TEST PITS ARE DESIGNATED ON THE DRAWINGS FOR INFORMATIONAL PURPOSES ONLY AND MAY NOT BE SHOWN AT EXACT LOCATIONS ALONG PIPE ALIGNMENT.
- TEST PITS SHALL BE EXCAVATED AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL OBTAIN THE LOCATION OF THE UTILITY/STRUCTURE IN QUESTION WITH TIES TO SURROUNDING FEATURES AND THE ELEVATION OF BOTH THE TOP AND BOTTOM OF THE UTILITY/STRUCTURE. COSTS FOR TEST PITS WILL BE PAID THROUGH THE BID ITEM 203.28.
- THE PROJECT IS LOCATED IN OR WITHIN PROXIMITY TO PROTECTED NATURAL RESOURCES, INCLUDING COASTAL WETLANDS, STREAMS AND HABITATS. THE CONTRACTOR SHALL WORK IN COMPLIANCE WITH THE NATURAL RESOURCES PROTECTION ACT (NRPA) PERMIT FROM THE MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION AND INDIVIDUAL PERMIT FROM THE ARMY CORPS OF ENGINEERS. THESE ENVIRONMENTAL PERMIT APPLICATIONS AND CONDITIONS OF APPROVAL ARE INCLUDED IN APPENDIX OF THE SPECIFICATIONS. VARIATION FROM THE WORK DESCRIBED IN THESE PERMITS MUST BE APPROVED IN WRITING FROM THESE REGULATORY AGENCIES PRIOR TO CONSTRUCTION.
- CSO-007 REGULATOR STRUCTURE ON OCEAN AVENUE: INSTALL 42" X 42" MANUALLY OPERATED SLIDE GATE, WHIPPS SERIES 925 OR APPROVED EQUAL AT 42"± OUTFALL (INVERT 5.84±) IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. COORDINATE INSTALLATION WITH CITY REPRESENTATIVE.
- REMOVE AND RESET ELECTRIC SERVICE IN NEW 4" SCHEDULE 40 PVC CONDUIT WHEN DISTURBED DUE TO CONSTRUCTION. COSTS ASSOCIATED WITH THIS WORK SHALL BE INCIDENTAL TO THE RELATED PAY ITEM.
- ANY EXCAVATION BY CONTRACTOR THAT UNCOVERS AN HISTORICAL OR ARCHAEOLOGICAL ARTIFACT SHALL BE IMMEDIATELY REPORTED TO OWNER AND A REPRESENTATIVE OF AGENCY. CONSTRUCTION SHALL BE TEMPORARILY HALTED PENDING THE NOTIFICATION PROCESS AND FURTHER DIRECTIONS ISSUED BY AGENCY AFTER CONSULTATION WITH THE STATE HISTORIC PRESERVATION OFFICER (SHPO). CONTRACTOR SHALL NOT BE ENTITLED TO PAY COMPENSATION DUE TO DELAY ASSOCIATED WITH THIS ITEM. COST SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT.
- ANY REQUIRED PROJECT WORK NOT IDENTIFIED UNDER A PAY ITEM OR RELATED TO A PAY ITEM SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT. NO EXTRA PAYMENT WILL BE MADE.
- IF WORK IS NECESSARY BEYOND THE SAW CUT LINES SHOWN ON CONTRACT PLANS TO ACCOMMODATE PROJECT CONSTRUCTION, COSTS SHALL BE CONSIDERED INCIDENTAL TO COSTS OF CONSTRUCTION AND NO EXTRA PAYMENT WILL BE MADE. ALL REQUIRED PROJECT WORK ASSOCIATED WITH CONTRACT DRAWINGS, DETAILS, GENERAL CONDITIONS AND SPECIFICATIONS SHALL BE CONSIDERED INCIDENTAL TO THE RELATED PAYS ITEMS. NO EXTRA PAYMENT WILL BE MADE FOR ANY DIRECT OR INCIDENTAL WORK REQUIRED TO COMPLETE THE PROJECT IN ITS ENTIRETY AND READY FOR OWNER ACCEPTANCE.

LEGEND

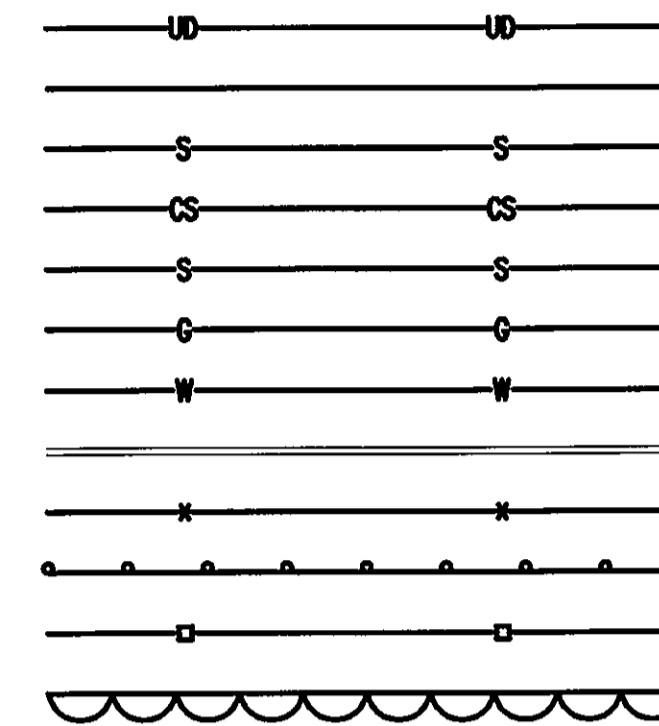
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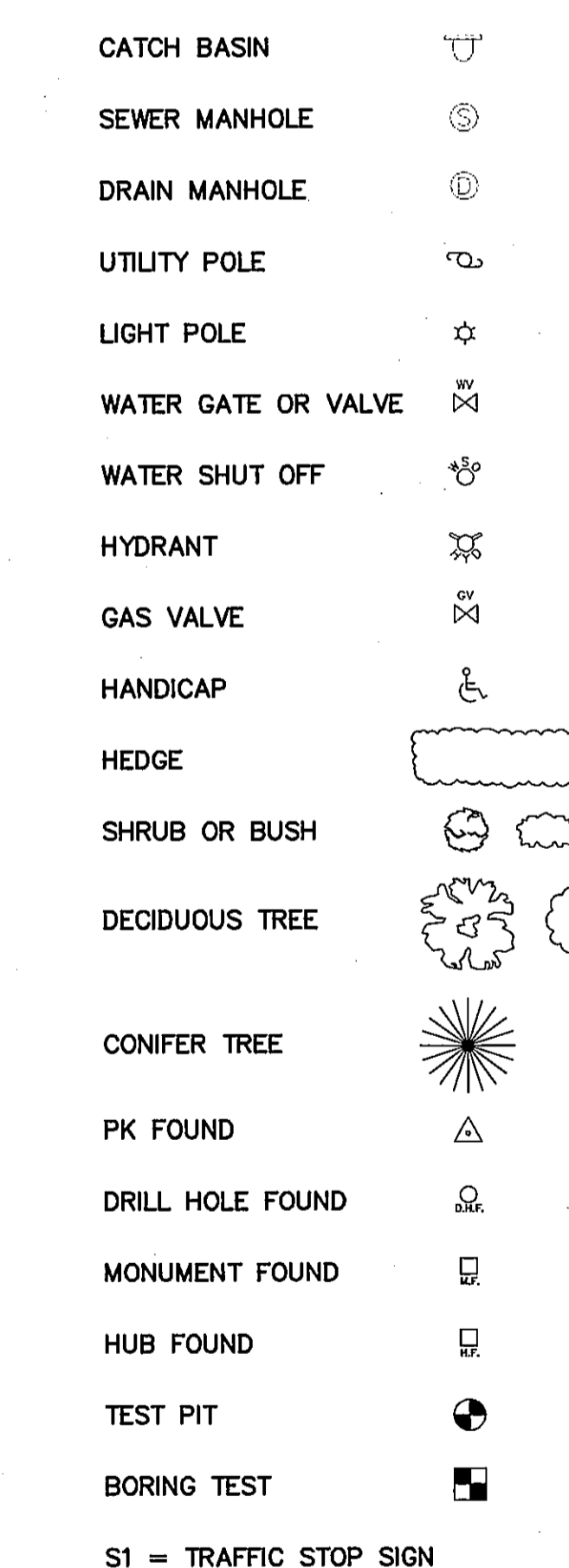
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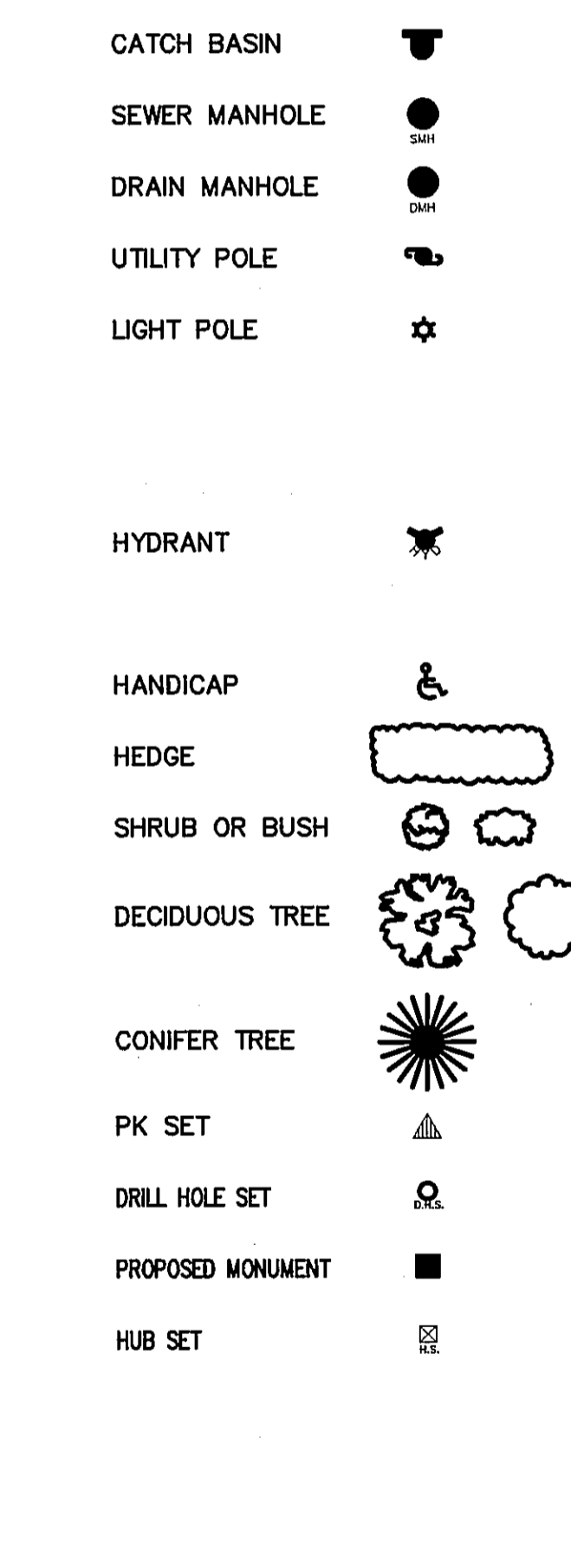
PROPOSED SYMBOLS



EXISTING SYMBOLS



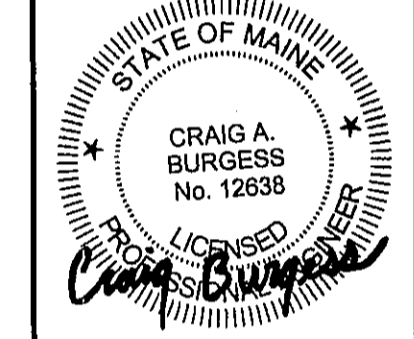
PROPOSED SYMBOLS



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BAXTER BOULEVARD
NORTH STORAGE CONDUIT
DRAWING NAME:
0906N
FIELD BOOK USED:
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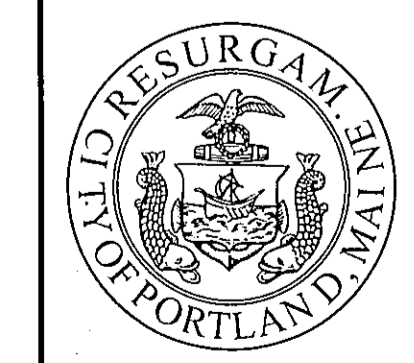
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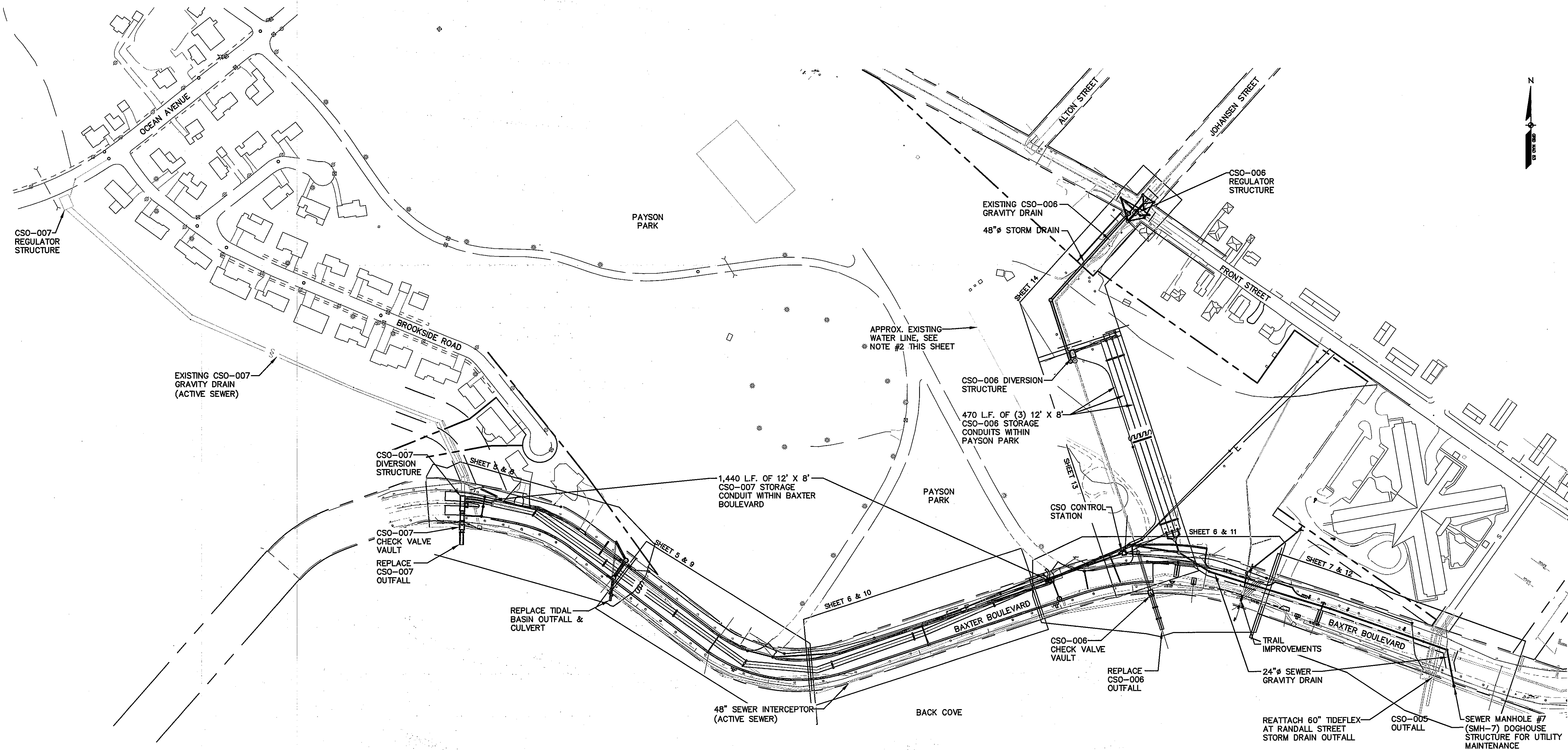


BAXTER BOULEVARD
NORTH STORAGE CONDUIT
LEGEND, GENERAL NOTES
AND LOCATION MAP

CITY OF PORTLAND, MAINE
PUBLIC SERVICES DEPARTMENT
ENGINEERING DIVISION



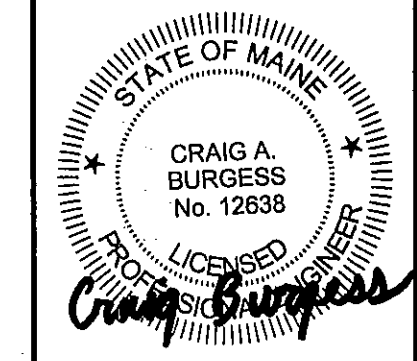
SHEET #
2 OF 54
PLAN NUMBER



LDD PROJECT NAME:
 BAXTER BOULEVARD
 NORTH STORAGE CONDUIT
 DRAWING NAME:
 090600P
 FIELD BOOK USED:
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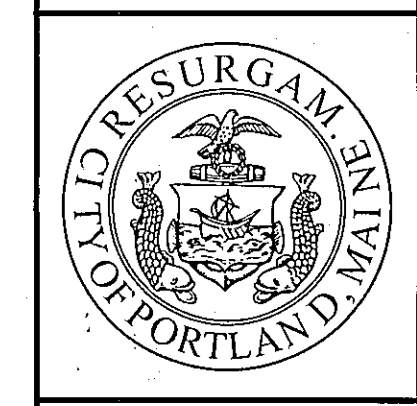
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**BAXTER BOULEVARD
 NORTH STORAGE CONDUIT
 OVERALL
 DESIGN PLAN**

CITY OF PORTLAND, MAINE
 PUBLIC SERVICES DEPARTMENT
 ENGINEERING DIVISION

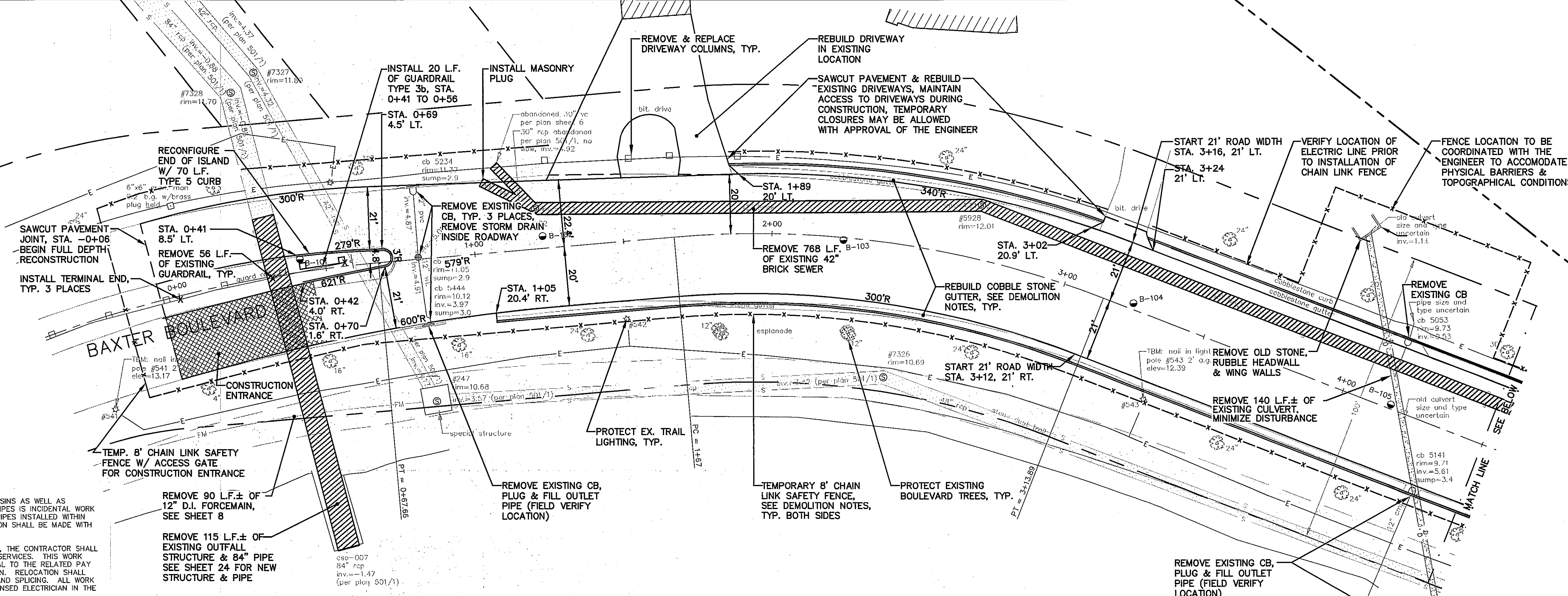
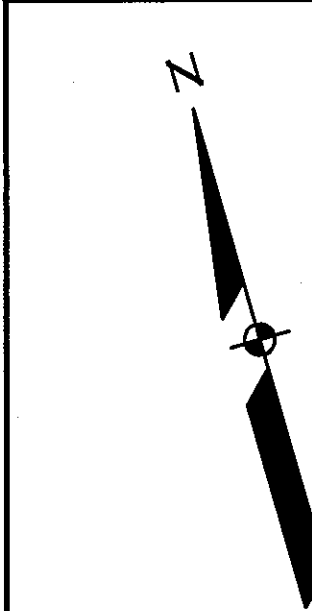


SHEET #
4 OF **54**
 PLAN NUMBER

STRUCTURE KEY

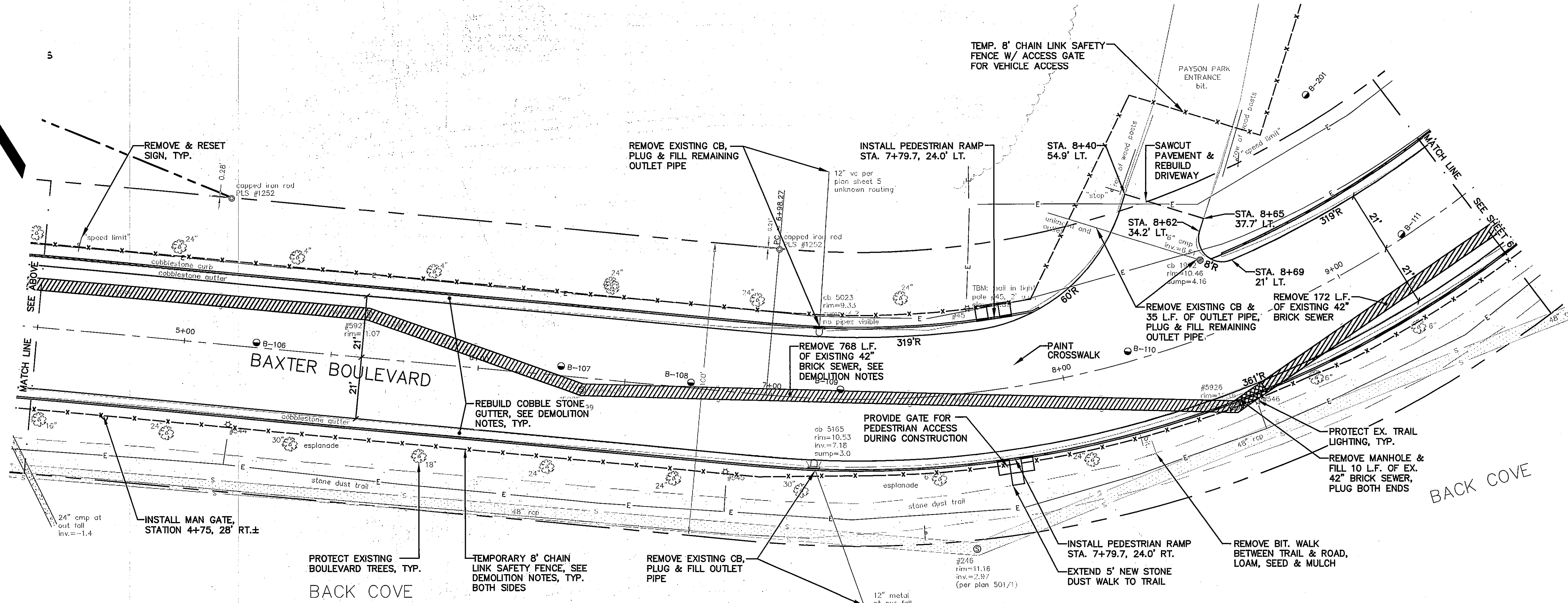
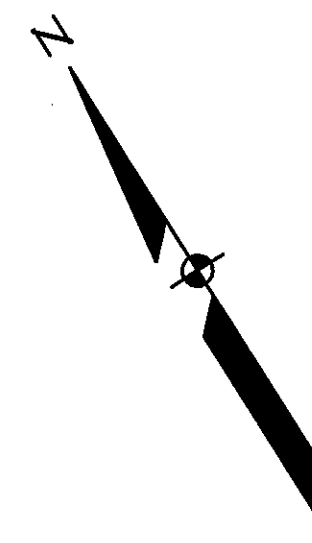
STRUCTURE	SHEET(S) #
CSO-006 REGULATOR STRUCTURE	14, 30
CSO-006 DIVERSION STRUCTURE	13, 29
CSO-006 BOX CULVERTS	13, 29
CSO-006 CHECK VALVE VAULT	11, 23
CSO-007 REGULATOR STRUCTURE	30
CSO-007 DIVERSION STRUCTURE	8, 28
CSO-007 BOX CULVERT	8, 9, 10, 11, 28
CSO-007 CHECK VALVE VAULT	8, 24
REPLACE TIDAL BASIN OUTFALL & CULVERT	8
TRAIL IMPROVEMENTS	11, 12
CSO CONTROL STATION	11, 32
24" SEWER GRAVITY DRAIN	11, 12, 13
SEWER MANHOLE #7 (SMH-7) DOGHOUSE STRUCTURE	12, 31

- NOTES:
- THE RECREATIONAL TRAIL AROUND BACK COVE SHALL REMAIN OPEN DURING CONSTRUCTION. PEDESTRIAN ACCESS TO THE TRAIL SHALL BE PROVIDED BY THE CONTRACTOR DURING CONSTRUCTION.
 - THE APPROXIMATE LOCATION OF AN EXISTING WATER LINE IS SHOWN. FIELD VERIFY LOCATION PRIOR TO CONSTRUCTION. REMOVAL AND REPLACEMENT OF THE WATERLINE FOR INSTALLATION OF UNDERGROUND ELECTRIC SHALL BE IN ACCORDANCE WITH THE DETAIL.



- NOTES:**
- REMOVAL OF EXISTING CATCH BASINS AS WELL AS PLUGGING AND FILLING OUTLET PIPES IS INCIDENTAL WORK TO THE NEW STRUCTURES AND PIPES INSTALLED WITHIN THE PROJECT AREA. COORDINATION SHALL BE MADE WITH THE CITY REPRESENTATIVE.
 - WHERE REQUIRED OR NECESSARY, THE CONTRACTOR SHALL RELOCATE EXISTING ELECTRICAL SERVICES. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE RELATED PAY ITEM REQUIRING THE MODIFICATION. RELOCATION SHALL INCLUDE NEW WIRE IN CONDUIT AND SPLICING. ALL WORK SHALL BE COMPLETED BY A LICENSED ELECTRICIAN IN THE STATE OF MAINE.

PLAN
SCALE: 1"=20'

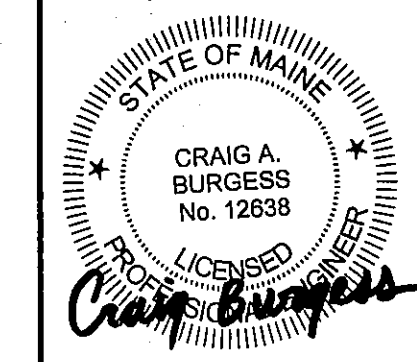


PLAN
SCALE: 1"=20'

LDD PROJECT NAME:
BAXTER BOULEVARD
NORTH STORAGE CONDUIT
DRAWING NAME:
09060101
FIELD BOOK USED:
N/A

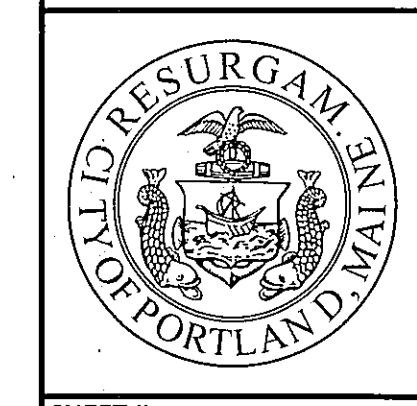
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DATE:	AS NOTED
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DATE:	11/16/2012

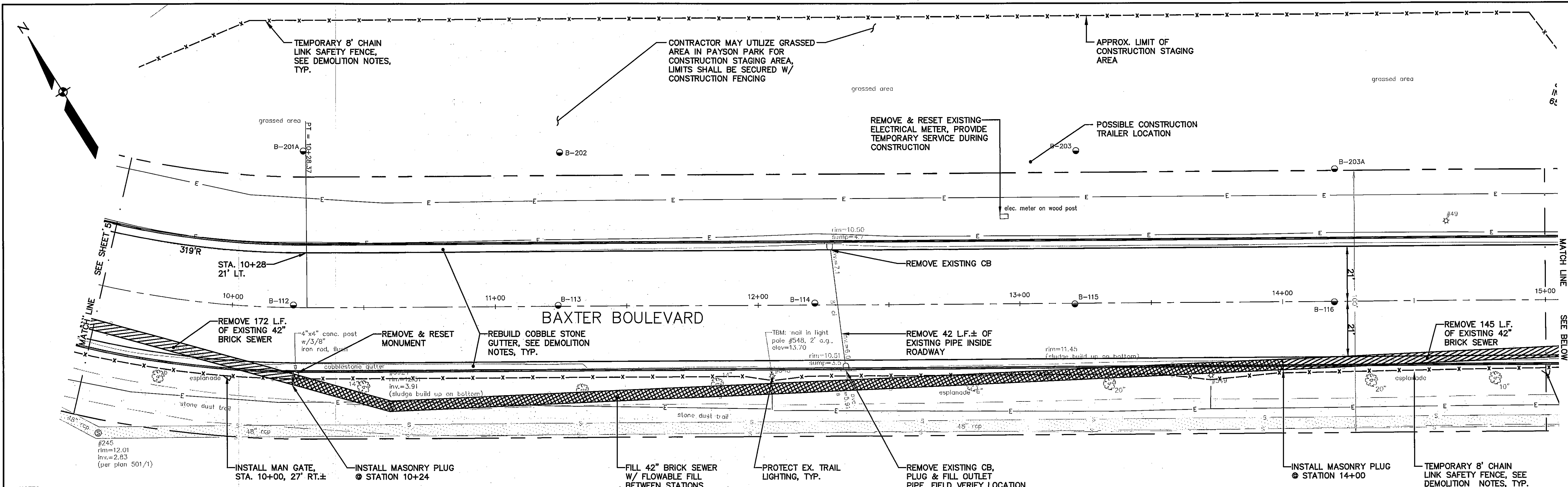


BAXTER BOULEVARD
NORTH STORAGE CONDUIT
LAYOUT & DEMOLITION PLAN
STATIONS 0+00 TO 9+50

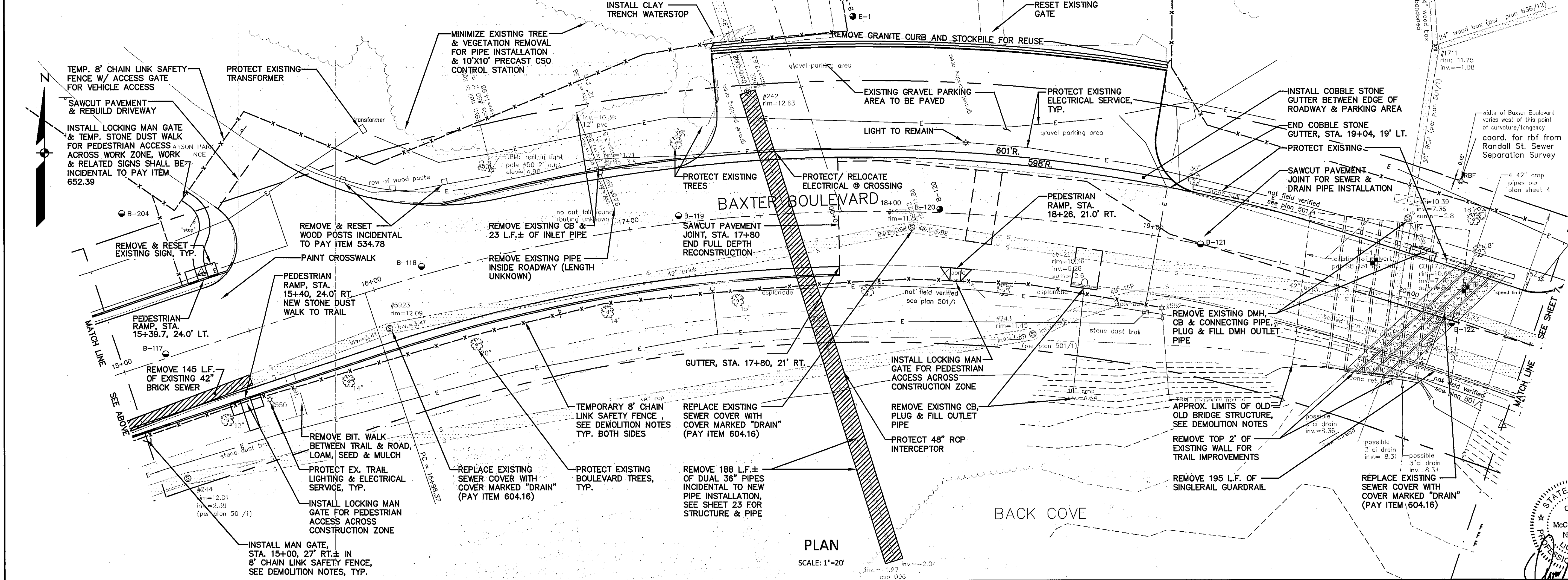
CITY OF PORTLAND, MAINE
PUBLIC SERVICES DEPARTMENT
ENGINEERING DIVISION



SHEET #
5 OF 54
PLAN NUMBER



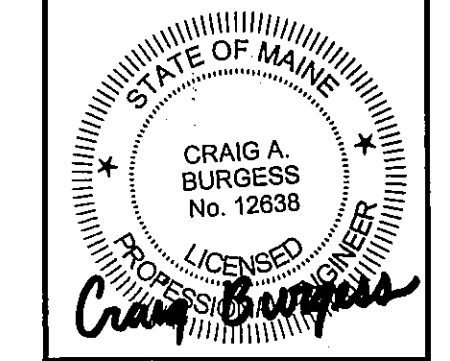
- NOTES:**
1. REMOVAL OF EXISTING CATCH BASINS AS WELL AS PLUGGING AND FILLING OUTLET PIPES IS INCIDENTAL WORK TO THE NEW STRUCTURES AND PIPES INSTALLED WITHIN THE PROJECT AREA. COORDINATION SHALL BE MADE WITH THE CITY REPRESENTATIVE.
 2. WHERE REQUIRED OR NECESSARY, THE CONTRACTOR SHALL RELOCATE EXISTING ELECTRICAL SERVICES. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE RELATED PAY ITEM REQUIRING THE MODIFICATION. RELOCATION SHALL INCLUDE NEW WIRE IN CONDUIT AND SPLICING. ALL WORK SHALL BE COMPLETED BY A LICENSED ELECTRICIAN IN THE STATE OF MAINE.
 3. CLAY TRENCH WATERSTOPS OF NATURAL CLAY, CONCRETE OR FLOWABLE FILL SHALL BE INSTALLED AS SHOWN ON THIS PLAN. DAMS SHALL EXTEND A MINIMUM 1 FOOT BELOW EXISTING PIPE. 2X PIPE DIAMETER BEYOND THE SIDEWALLS AND 2 FEET BELOW EXISTING/ FINISHED GRADE. ADJUST WATERSTOP DIMENSIONS AS REQUIRED TO PREVENT GROUNDWATER FLOW THROUGH TRENCH. WATERSTOPS SHALL BE A MINIMUM OF 3 FEET THICKNESS.



LDD PROJECT NAME:
BAXTER BOULEVARD
NORTH STORAGE CONDUIT
DRAWING NAME:
0906GLO1
FIELD BOOK USED:
N/A

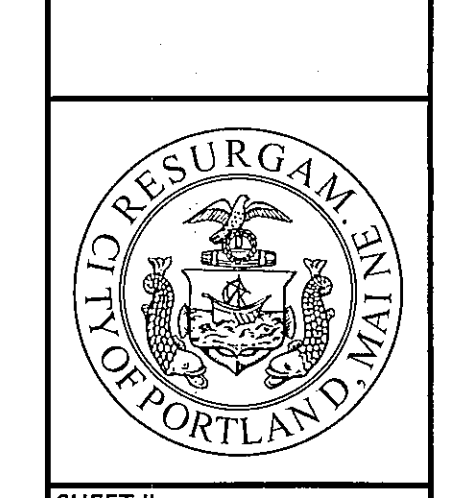
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SCALE:
DATE:

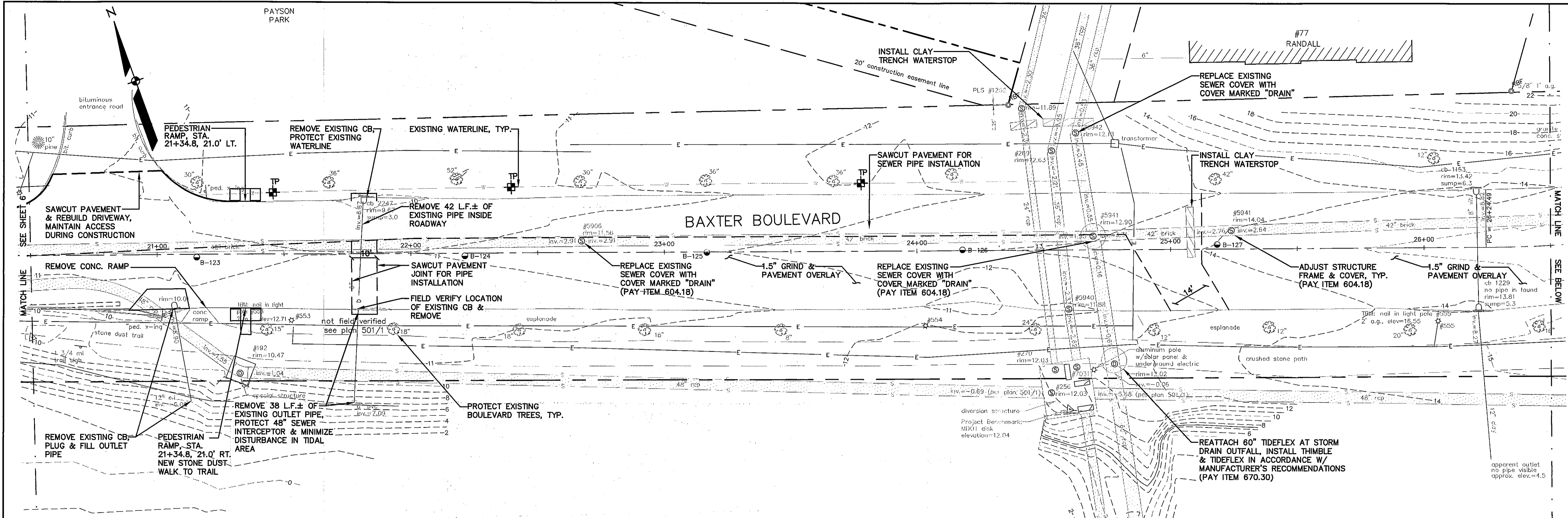


**BAXTER BOULEVARD
NORTH STORAGE CONDUIT
LAYOUT & DEMOLITION PLAN**
STATIONS 9+50 TO 20+50

CITY OF PORTLAND, MAINE
PUBLIC SERVICES DEPARTMENT
ENGINEERING DIVISION

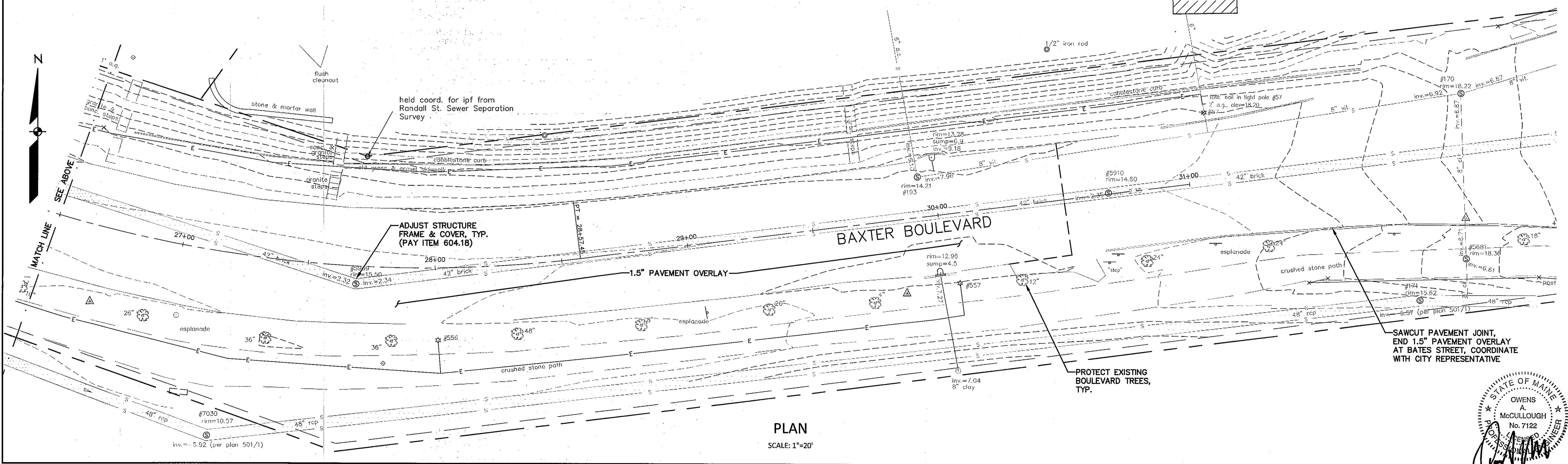


SHEET #
6 OF 54
PLAN NUMBER



PLAN
SCALE: 1"=20'

- NOTES:
- REMOVAL OF EXISTING CATCH BASINS AS WELL AS PLUGGING AND FILLING OUTLET PIPES IS INCIDENTAL WORK TO THE NEW STRUCTURES AND PIPES INSTALLED WITHIN THE PROJECT AREA. COORDINATION SHALL BE MADE WITH THE CITY REPRESENTATIVE.
 - WHERE REQUIRED OR NECESSARY, THE CONTRACTOR SHALL RELOCATE EXISTING ELECTRICAL SERVICES. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE RELATED PAY ITEM REQUIRING THE MODIFICATION. RELOCATION SHALL INCLUDE NEW WIRE IN CONDUIT AND SPLICING. ALL WORK SHALL BE COMPLETED BY A LICENSED ELECTRICIAN IN THE STATE OF MAINE.
 - CLAY TRENCH WATERSTOPS OF NATURAL CLAY, BENTONITE OR FLOWABLE FILL SHALL BE INSTALLED AS SHOWN ON THIS PLAN. DAMS SHALL EXTEND A MINIMUM 1 FOOT BELOW EXISTING PIPE, 2X PIPE DIAMETER BEYOND THE SIDEWALLS AND 2 FEET BELOW EXISTING FINISHED GRADE. ADJUST WATERSTOP DIMENSIONS AS REQUIRED TO PREVENT GROUNDWATER FLOW THROUGH TRENCH. WATERSTOPS SHALL BE A MINIMUM OF 3 FEET THICKNESS.

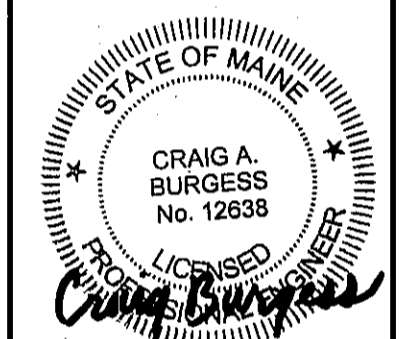


PLAN
SCALE: 1"=20'

LDD PROJECT NAME:
BAXTER BOULEVARD
NORTH STORAGE CONDUIT
DRAWING NAME:
09006101
FIELD BOOK USED:
N/A

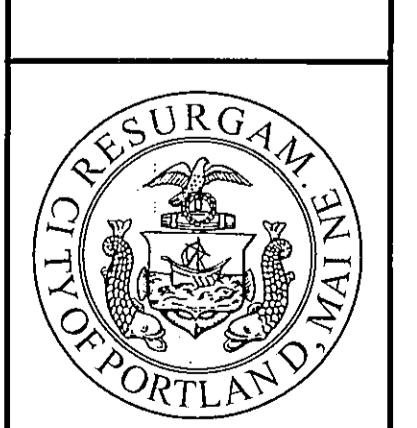
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09006101.dwg, TAB: BAXTER 20+50-26+50

DESIGNED BY:	CAW/CAB
DRAWN BY:	BRF/CAB
CHECKED BY:	OAM
SCALE:	AS NOTED
DATE:	11-16-2021

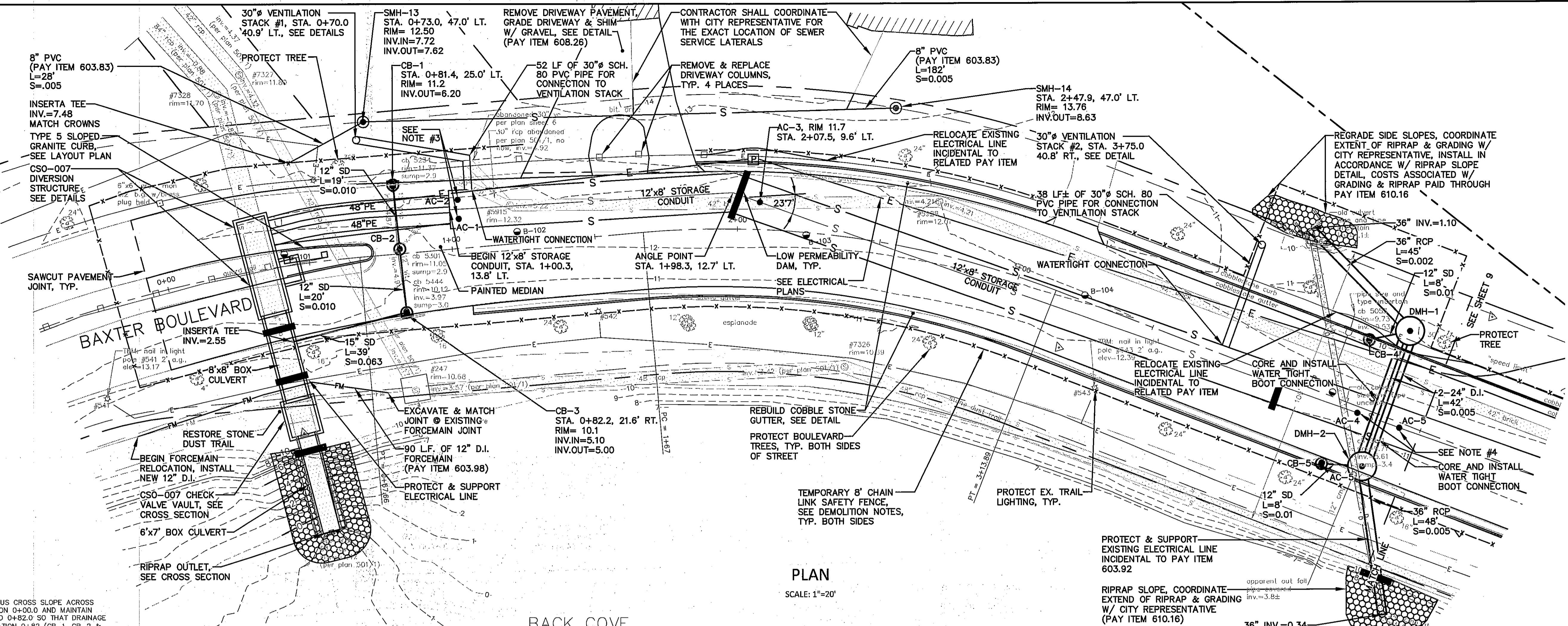
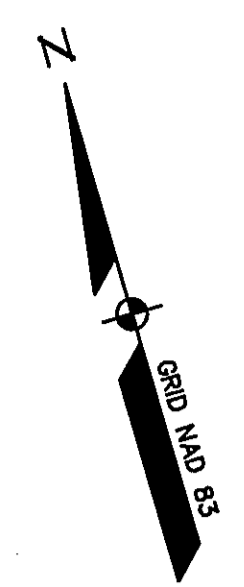


BAXTER BOULEVARD
NORTH STORAGE CONDUIT
DEMOLITION PLAN
STATIONS 20+50 TO 26+50

CITY OF PORTLAND, MAINE
PUBLIC SERVICES DEPARTMENT
ENGINEERING DIVISION



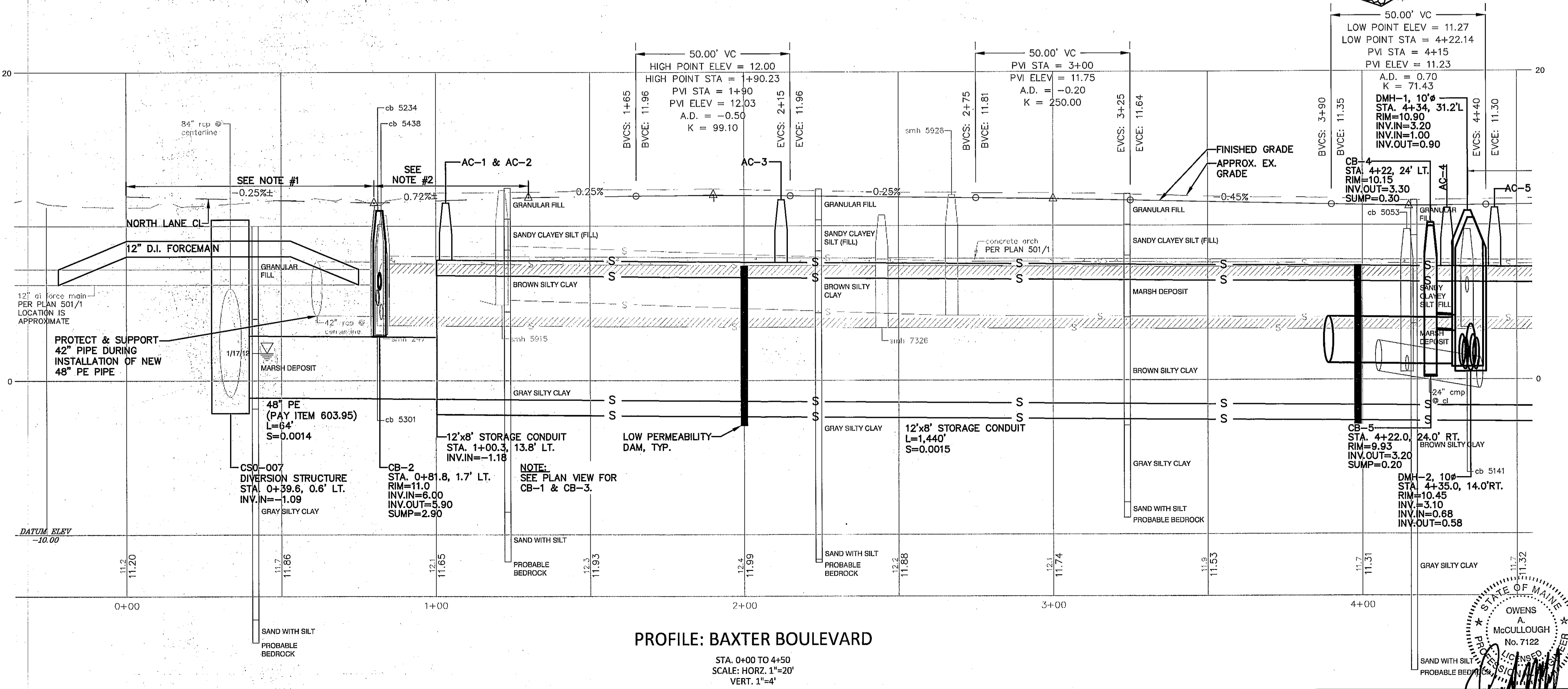
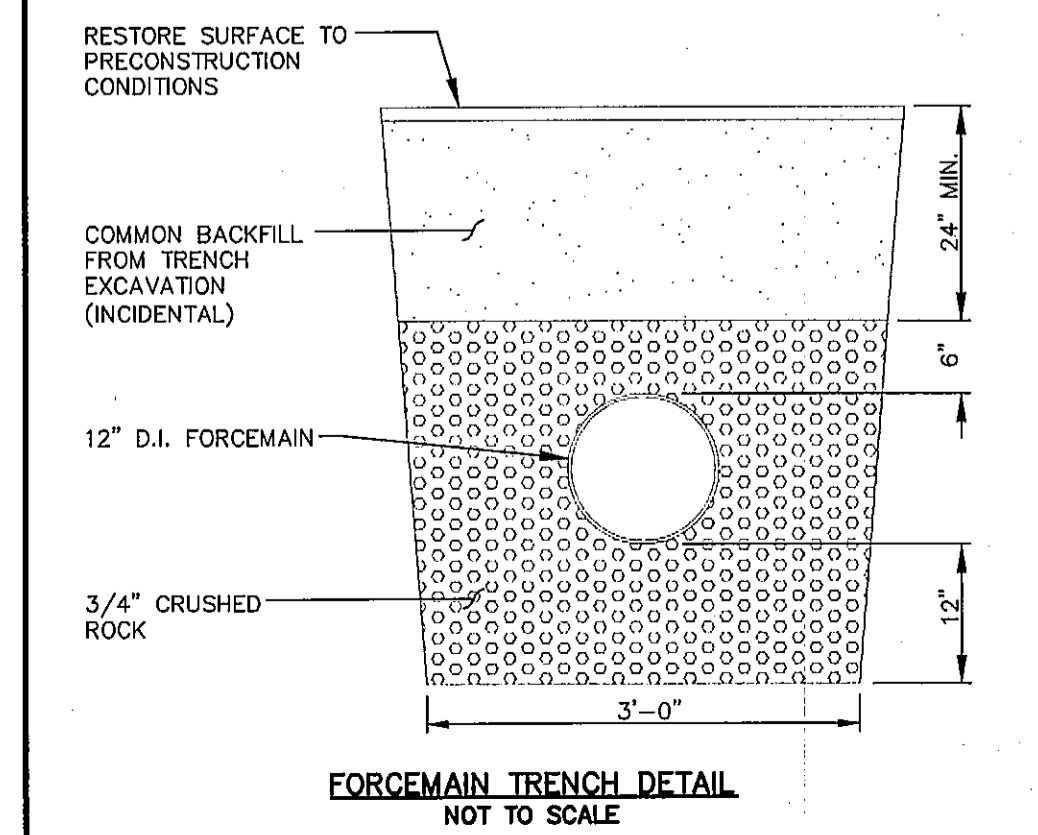
SHEET #
7 OF 54
PLAN NUMBER



PLAN
SCALE: 1"=20'

BACK COVE

- NOTES:
1. MAINTAIN CROWN IN NORTH LANE AND CONTINUOUS CROSS SLOPE ACROSS SOUTH LANE. MATCH EXISTING GRADE AT STATION 0+00.0 AND MAINTAIN NEGATIVE GRADE BETWEEN STATIONS 0+00.0 AND 0+82.0 SO THAT DRAINAGE IS DIRECTED TOWARD THE CATCH BASINS AT STATION 0+82 (CB-1, CB-2 & CB-3). REFER TO CROSS SECTIONS AND COORDINATE WITH CITY REPRESENTATIVE.
 2. TRANSITION TO A FULL CROWN BETWEEN STATIONS 0+82 AND 1+30. REFER TO CROSS SECTIONS AND COORDINATE WITH CITY REPRESENTATIVE.
 3. ACCESS COVERS:
AC-1, RIM 11.4±, STA. 1+03.2, 10.4' LT.
AC-2, RIM 11.4±, STA. 1+03.4, 17.0' LT.
 4. ACCESS COVERS:
AC-4, RIM 11.1, STA. 4+27.3, 2.2' RT.
AC-5, RIM 11.1, STA. 4+42.8, 1.7' RT.
 5. CONTRACTOR SHALL PROVIDE AND INSTALL BYPASS PUMPING DURING CONSTRUCTION OF CSO-007 DIVERSION STRUCTURE. BYPASS PIPING SHALL BE CAPABLE OF PASSING 340 CFS (PREDICTED 25-YEAR STORM FLOW).
 6. DRAINAGE WORK AT STATION 4+35 SHALL INCLUDE SEQUENCING STORAGE CONDUIT INSTALLATION TO ALLOW FOR SURFACE DRAINAGE FLOW AT EXISTING CULVERT CROSSING. CONTRACTOR SHALL SUBMIT WORK PLAN FOR APPROVAL.
 7. THE DUAL 24"± DUCTILE IRON (D.I.) PIPES SHALL BE SUPPORTED 24" O.C. BY RIGID PIPE HANGERS SUSPENDED FROM CONDUIT CEILING OR GROUND SUPPORTED. SUBMIT MANUFACTURER INFORMATION FOR APPROVAL.
 8. GRADE GRASSED AREAS ALONG NORTH SIDE OF ROADWAY BETWEEN STATIONS 4+50 AND 8+00 SO THAT DRAINAGE IS DIRECTED TOWARD THE ROADWAY OR TIDAL AREA. PROTECT EXISTING BOWLEARD TREES.
 9. LOW PERMEABILITY DAMS OF NATURAL CLAY, BETONITE OR FLOWABLE FILL SHALL BE INSTALLED EVERY 200 FEET ALONG THE STORAGE CONDUIT TO MINIMIZE TIDAL FLOW THROUGH THE BACKFILL. DAMS SHALL EXTEND A MINIMUM 1 FOOT BELOW THE TRENCH BOTTOM, 2 FEET BEYOND THE SIDEWALLS AND UP TO ELEVATION 7.4. DAMS SHALL BE A MINIMUM OF 2 FEET THICKNESS.
 10. THE CONTRACTOR SHALL SUBMIT WORK PLAN DETAILING CONNECTION OF EXISTING 84" RCP TO CSO-007 DIVERSION STRUCTURE. ALL WORK ASSOCIATED WITH THE CONNECTION, INCLUDING BUT NOT LIMITED TO SAW CUTTING PIPE, REPLACEMENT OF 84" PIPE SECTION AND WATERTIGHT CONNECTION SHALL BE CONSIDERED INCIDENTAL TO PAY ITEM 534.74.
 11. CATCH BASIN OFFSETS ALONG BAXTER BOULEVARD ARE TO THE EDGE OF CURB AND CATCH BASIN OFFSETS OUTSIDE BAXTER BOULEVARD ARE TO CENTER OF GRATE. DRAIN AND SEWER MANHOLE OFFSETS ARE TO CENTER OF COVER.

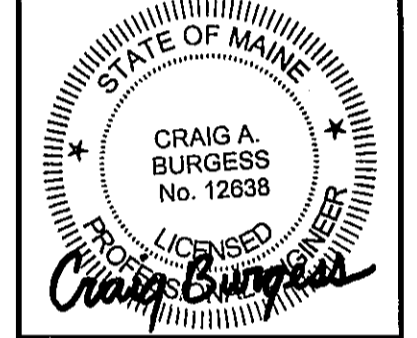


PROFILE: BAXTER BOULEVARD
STA. 0+00 TO 4+50
SCALE: HORZ. 1"=20'
VERT. 1"=4'

LDD PROJECT NAME:
BAXTER BOULEVARD
NORTH STORAGE CONDUIT
DRAWING NAME:
0906PP1
FIELD BOOK USED:
N/A

REFERENCES:
0906pp1.dwg, TAB: BAXTER 0+0-4+50

DESIGNED BY:
DRAWN BY:
CHECKED BY:
SCALE:
AS NOTED
DATE:
11-29-2022

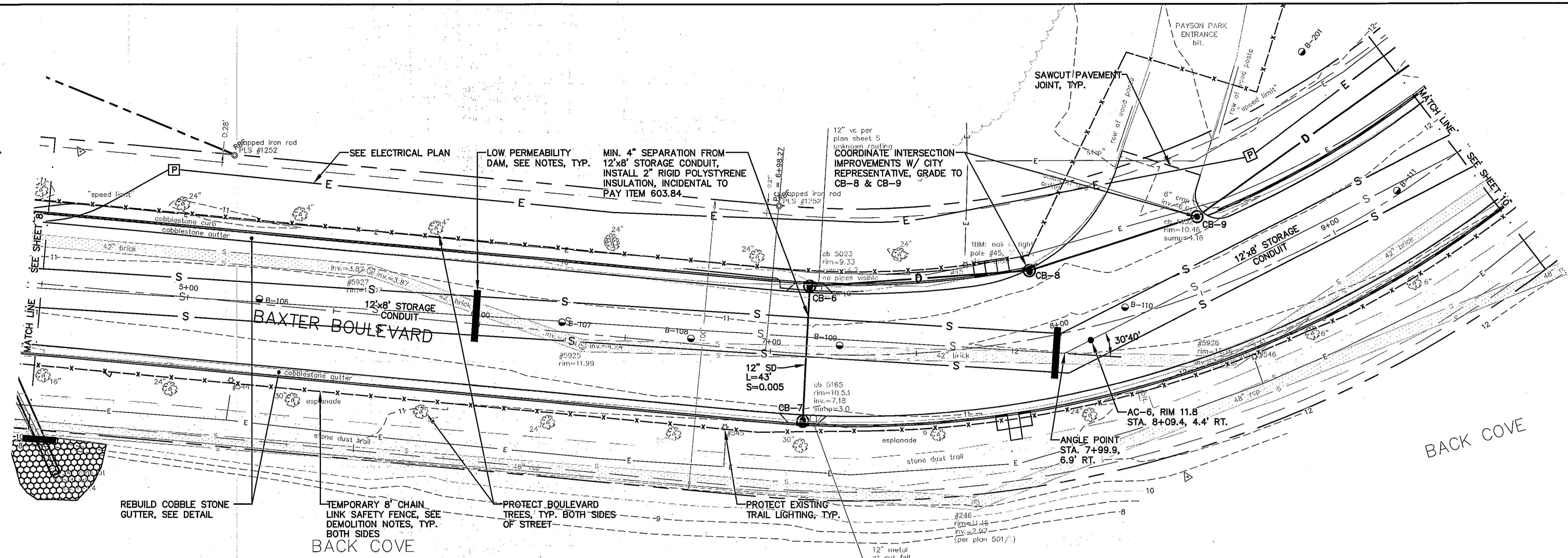
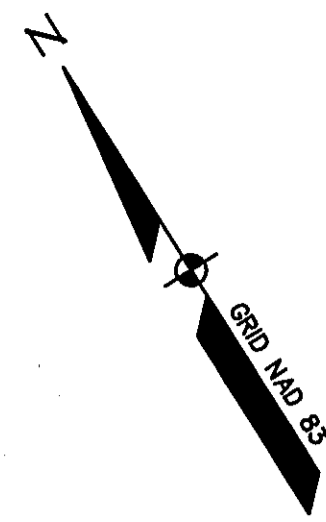


BAXTER BOULEVARD
NORTH STORAGE CONDUIT
PLAN & PROFILE
STATIONS 0+00 TO 4+50

CITY OF PORTLAND, MAINE
PUBLIC SERVICES DEPARTMENT
ENGINEERING DIVISION

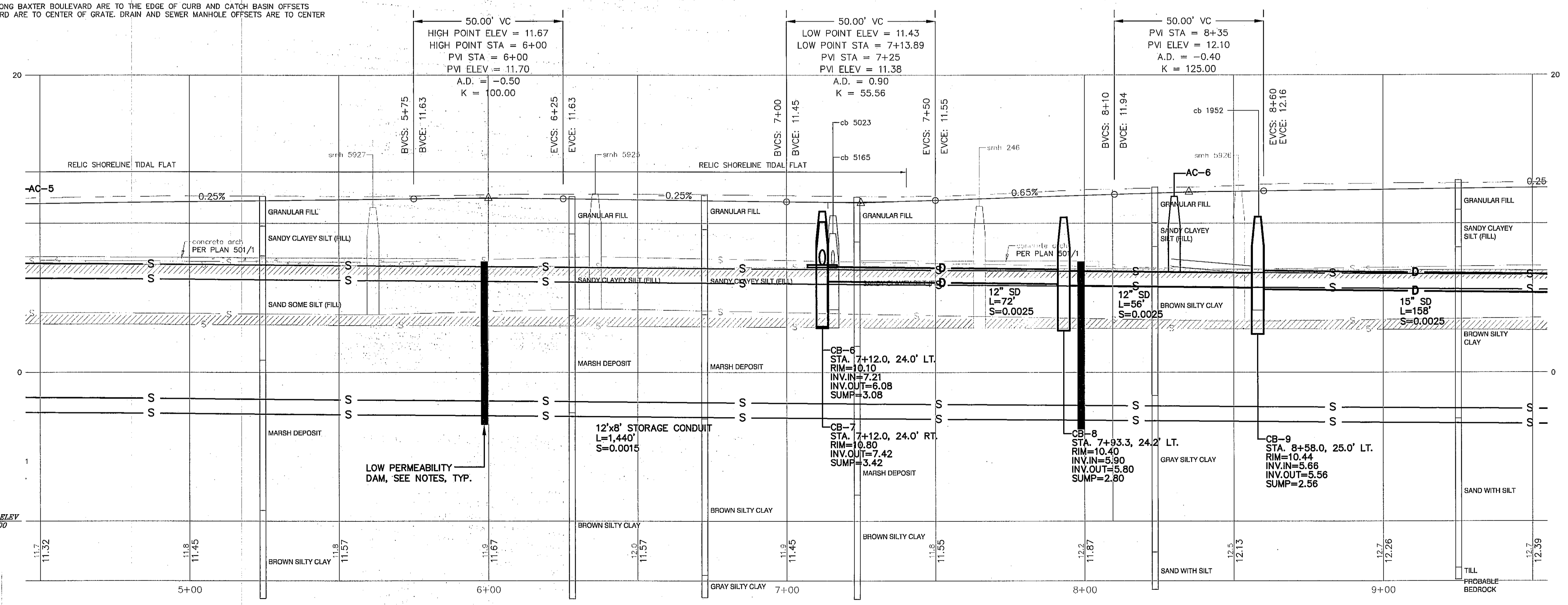


SHEET #
8 OF 54
PLAN NUMBER



PLAN
SCALE: 1"=20'

- NOTES:
- GRADE GRASSED AREAS ALONG NORTH SIDE OF ROADWAY BETWEEN STATIONS 4+50.0 AND 8+00.0 SO THAT DRAINAGE IS DIRECTED TOWARD THE ROADWAY OR TIDAL AREA. PROTECT EXISTING BOULEVARD TREES.
 - GRADE GRASSED AREAS ALONG NORTH SIDE OF ROADWAY BETWEEN STATIONS 9+00.0 AND 15+50.0 SO THAT DRAINAGE IS DIRECTED TOWARD ROADWAY.
 - LOW PERMEABILITY DAMS OF NATURAL CLAY, BETONITE OR FLOWABLE FILL SHALL BE INSTALLED EVERY 200 FEET ALONG THE STORAGE CONDUIT TO MINIMIZE TIDAL FLOW THROUGH THE BACKFILL. DAMS SHALL EXTEND A MINIMUM 1 FOOT BELOW THE TRENCH BOTTOM, 2 FEET BEYOND THE SIDEWALLS AND UP TO ELEVATION 7.4. DAMS SHALL BE A MINIMUM OF 2 FEET THICKNESS.
 - CATCH BASIN OFFSETS ALONG BAXTER BOULEVARD ARE TO THE EDGE OF CURB AND CATCH BASIN OFFSETS OUTSIDE BAXTER BOULEVARD ARE TO CENTER OF GRATE. DRAIN AND SEWER MANHOLE OFFSETS ARE TO CENTER OF COVER.

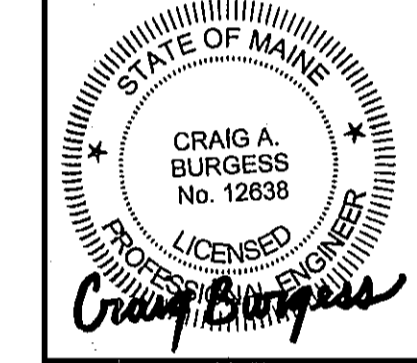


PROFILE: BAXTER BOULEVARD
STA. 4+50 TO 9+50
SCALE: HORZ. 1"=20'
VERT. 1"=4'

LDD PROJECT NAME:
BAXTER BOULEVARD
NORTH STORAGE CONDUIT
DRAWING NAME:
09006PPI
FIELD BOOK USED:
N/A

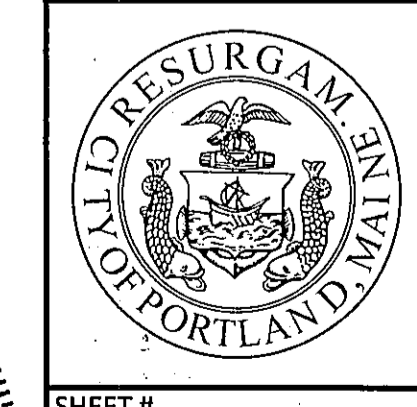
REFERENCES:
09006ppi.dwg, TAB:BAXTER 4+50-9+50

DESIGNED BY:	DAW/CAB
DRAWN BY:	BRE/CAB
CHECKED BY:	DAW
SCALE:	AS NOTED
DATE:	11-16-2012

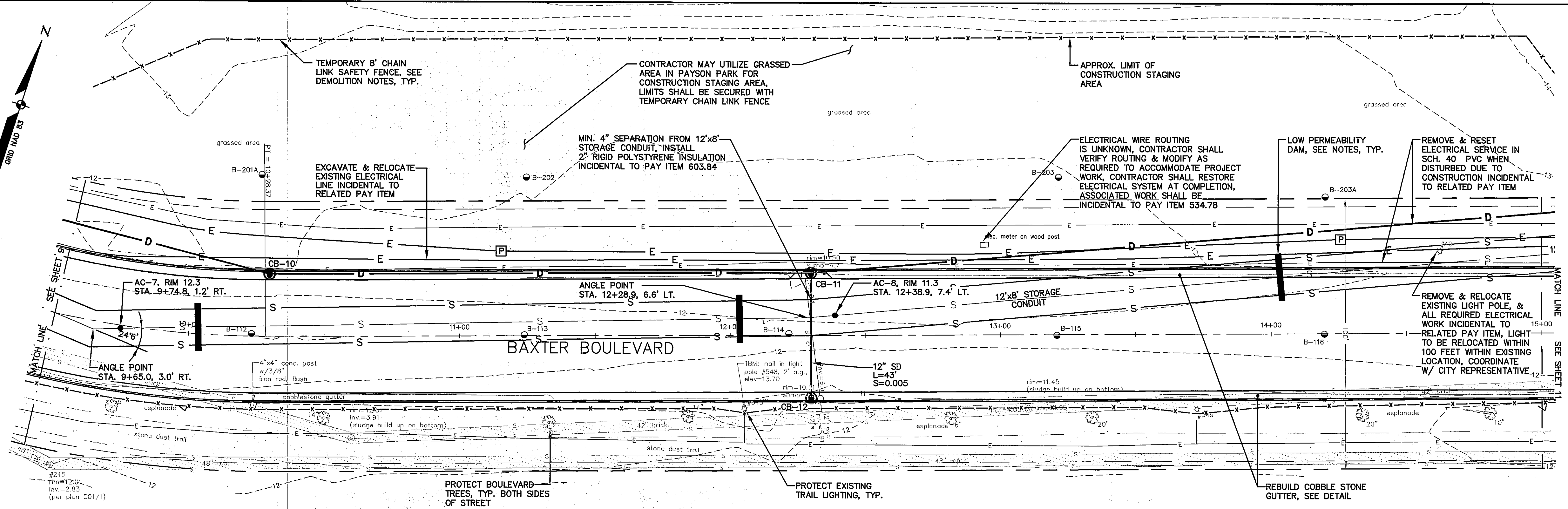
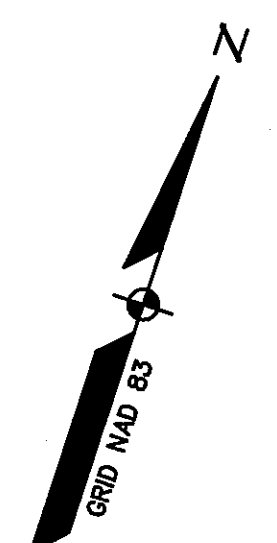


BAXTER BOULEVARD
NORTH STORAGE CONDUIT
PLAN & PROFILE
STATIONS 4+50 TO 9+50

CITY OF PORTLAND, MAINE
PUBLIC SERVICES DEPARTMENT
ENGINEERING DIVISION

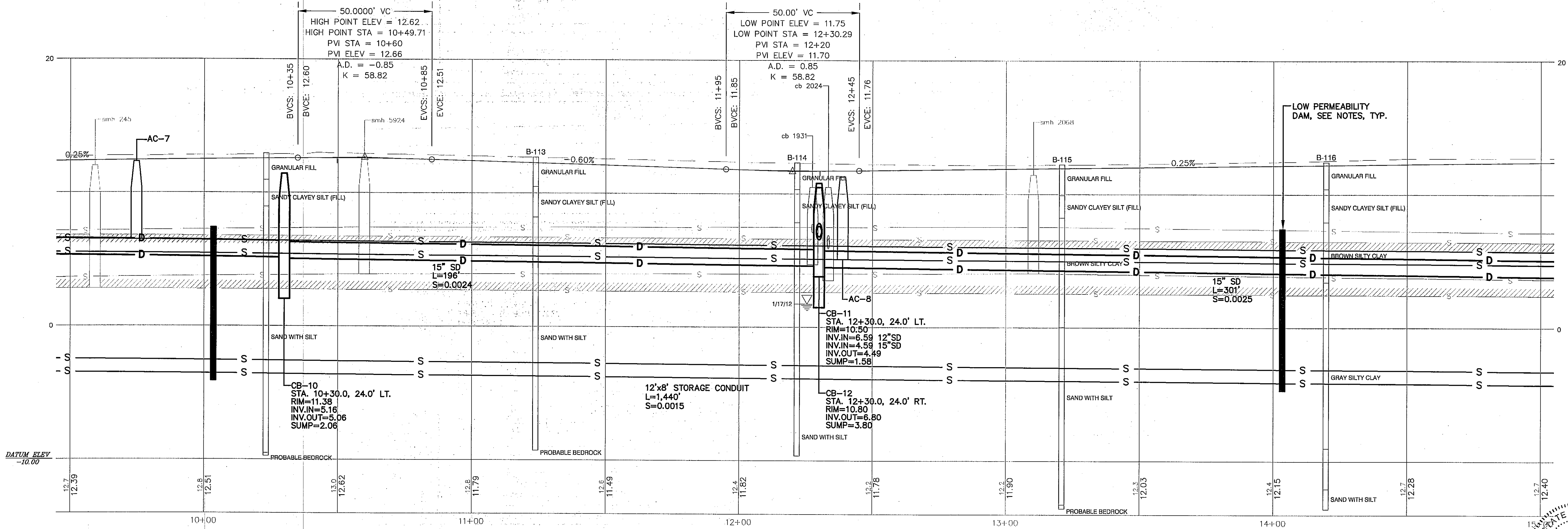


SHEET #
9 OF 54
PLAN NUMBER



- NOTE:**
- GRADE GRASSED AREAS ALONG NORTH SIDE OF ROADWAY BETWEEN STATIONS 9+00.0 AND 15+50.0 SO THAT DRAINAGE IS DIRECTED TOWARD ROADWAY.
 - LOW PERMEABILITY DAMS OF NATURAL CLAY, BETONITE OR FLOWABLE FILL SHALL BE INSTALLED EVERY 200 FEET ALONG THE STORAGE CONDUIT TO MINIMIZE TIDAL FLOW THROUGH THE BACKFILL. DAMS SHALL EXTEND A MINIMUM 1 FOOT BELOW THE TRENCH BOTTOM, 1 FOOT BEYOND THE SIDEWALLS AND UP TO ELEVATION 7.4'. DAMS SHALL BE A MINIMUM OF 2 FEET THICKNESS.
 - CATCH BASIN OFFSETS ALONG BAXTER BOULEVARD ARE TO THE EDGE OF CURB AND CATCH BASIN OFFSETS OUTSIDE BAXTER BOULEVARD ARE TO CENTER OF GRATE. DRAIN AND SEWER MANHOLE OFFSETS ARE TO CENTER OF COVER.

PLAN
SCALE: 1"=20'

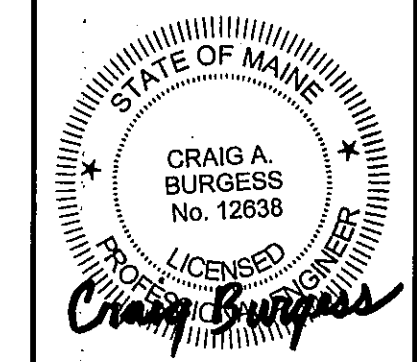


PROFILE: BAXTER BOULEVARD
STA. 9+50 TO 15+00
SCALE: HORZ. 1"=20'
VERT. 1"=4'

LDD PROJECT NAME:
BAXTER BOULEVARD
NORTH STORAGE CONDUIT
DRAWING NAME:
09006pp1
FIELD BOOK USED:
N/A

REFERENCES:
09006pp1.dwg, TAB: BAXTER 9+50-15+00

DESIGNED BY: OAK/CAB	DRAWN BY: BIF/CAB	CHECKED BY: OAM	SCALE: AS NOTED	DATE: 11-16-2012
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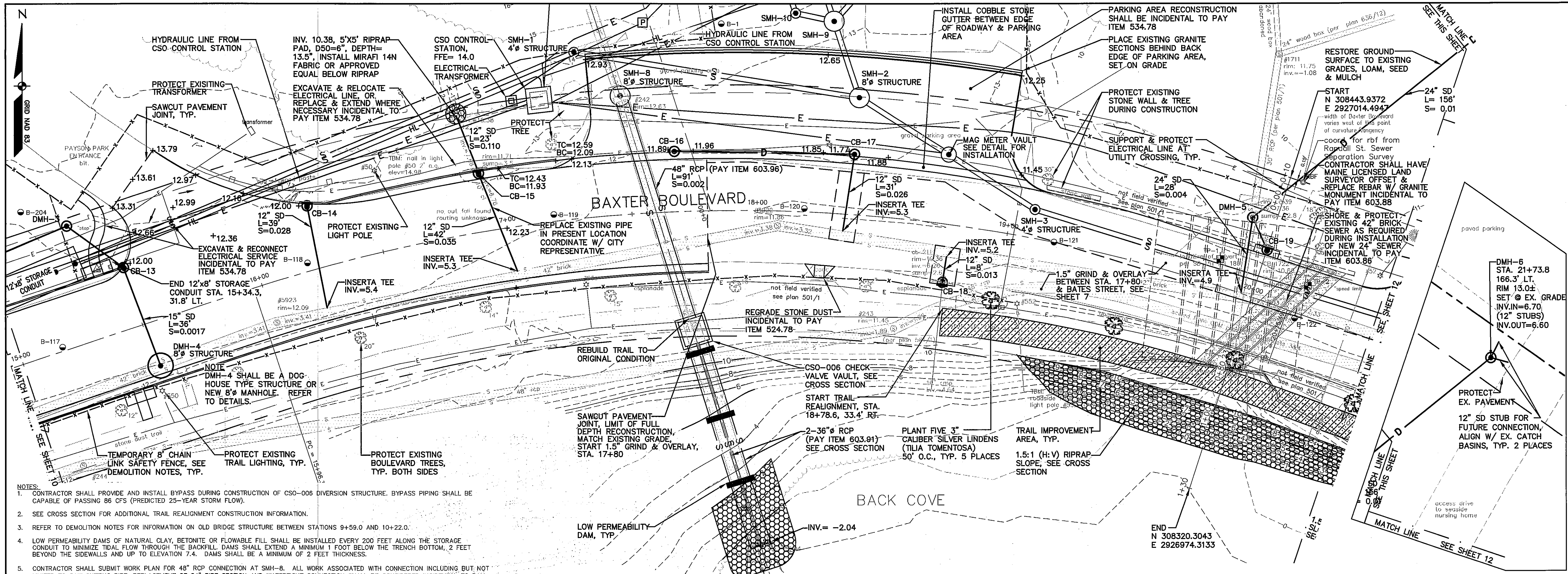


**BAXTER BOULEVARD
NORTH STORAGE CONDUIT
PLAN & PROFILE**
STATIONS 9+50 TO 15+00

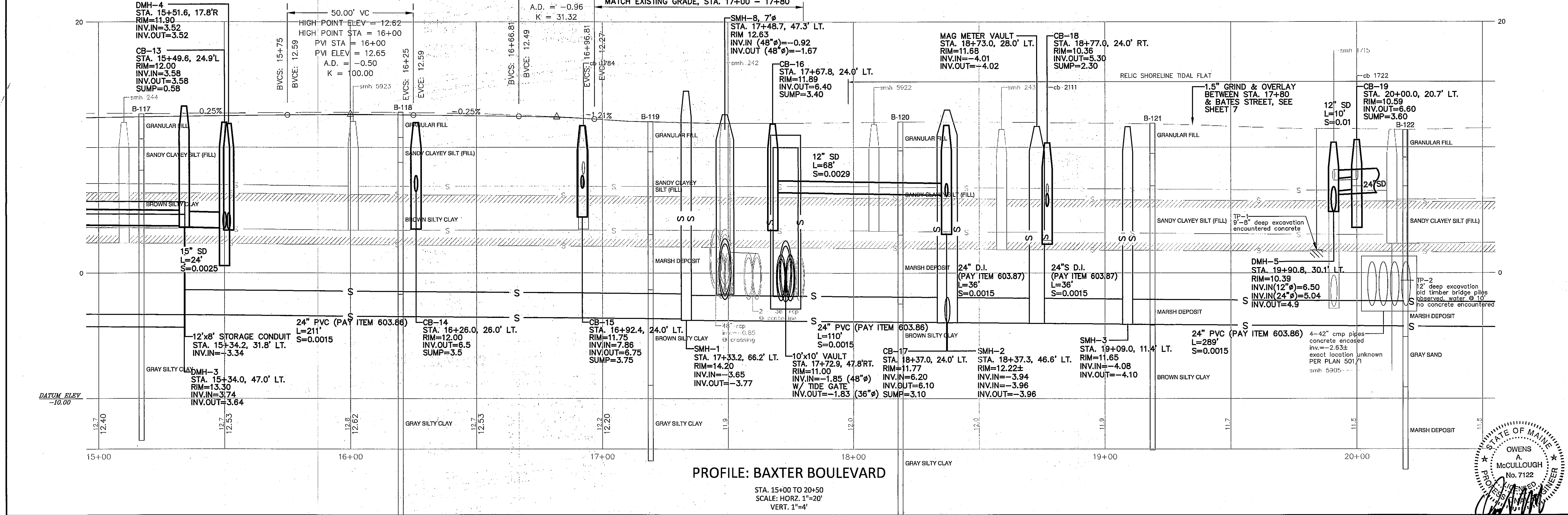
**CITY OF PORTLAND, MAINE
PUBLIC SERVICES DEPARTMENT
ENGINEERING DIVISION**



SHEET #
10 OF 54
PLAN NUMBER



- NOTES:**
- CONTRACTOR SHALL PROVIDE AND INSTALL BYPASS DURING CONSTRUCTION OF CSO-006 DIVERSION STRUCTURE. BYPASS PIPING SHALL BE CAPABLE OF PASSING 86 CFS (PREDICTED 25-YEAR STORM FLOW).
 - SEE CROSS SECTION FOR ADDITIONAL TRAIL REALIGNMENT CONSTRUCTION INFORMATION.
 - REFER TO DEMOLITION NOTES FOR INFORMATION ON OLD BRIDGE STRUCTURE BETWEEN STATIONS 9+59.0 AND 10+22.0.
 - LOW PERMEABILITY DAMS OF NATURAL CLAY, BETONITE OR FLOWABLE FILL SHALL BE INSTALLED EVERY 200 FEET ALONG THE STORAGE CONDUIT TO MINIMIZE TIDAL FLOW THROUGH THE BACKFILL. DAMS SHALL EXTEND A MINIMUM 1 FOOT BELOW THE TRENCH BOTTOM, 2 FEET BEYOND THE SIDEWALLS AND UP TO ELEVATION +7.4. DAMS SHALL BE A MINIMUM OF 2 FEET THICKNESS.
 - CONTRACTOR SHALL SUBMIT WORK PLAN FOR 48" RCP CONNECTION AT SMH-8. ALL WORK ASSOCIATED WITH CONNECTION INCLUDING BUT NOT LIMITED TO SAW CUTTING PIPE, REPLACEMENT OF 84" PIPE SECTION AND WATERTIGHT CONNECTION SHALL BE CONSIDERED INCIDENTAL TO PAY ITEM 604.154.
 - CATCH BASIN OFFSETS ALONG BAXTER BOULEVARD ARE TO THE EDGE OF CURB AND CATCH BASIN OFFSETS OUTSIDE BAXTER BOULEVARD ARE TO CENTER OF GRADE. DRAIN AND SEWER MANHOLE OFFSETS ARE TO CENTER OF COVER.



LD PROJECT NAME:
 BAXTER BOULEVARD
 NORTH STORAGE CONDUIT

DRAWING NAME:
 090606P1

FIELD BOOK USED:
 N/A

REFERENCES:
 090606p1.dwg, TAB BAXTER 15+00-20+50

DESIGNED BY:	CRAG/CAB
DRAWN BY:	BREY/CAB
CHECKED BY:	DAAM
SCALE:	AS NOTED
DATE:	11-16-2012

CRAIG A. BURGESS
 No. 12638
 LICENSED PROFESSIONAL ENGINEER

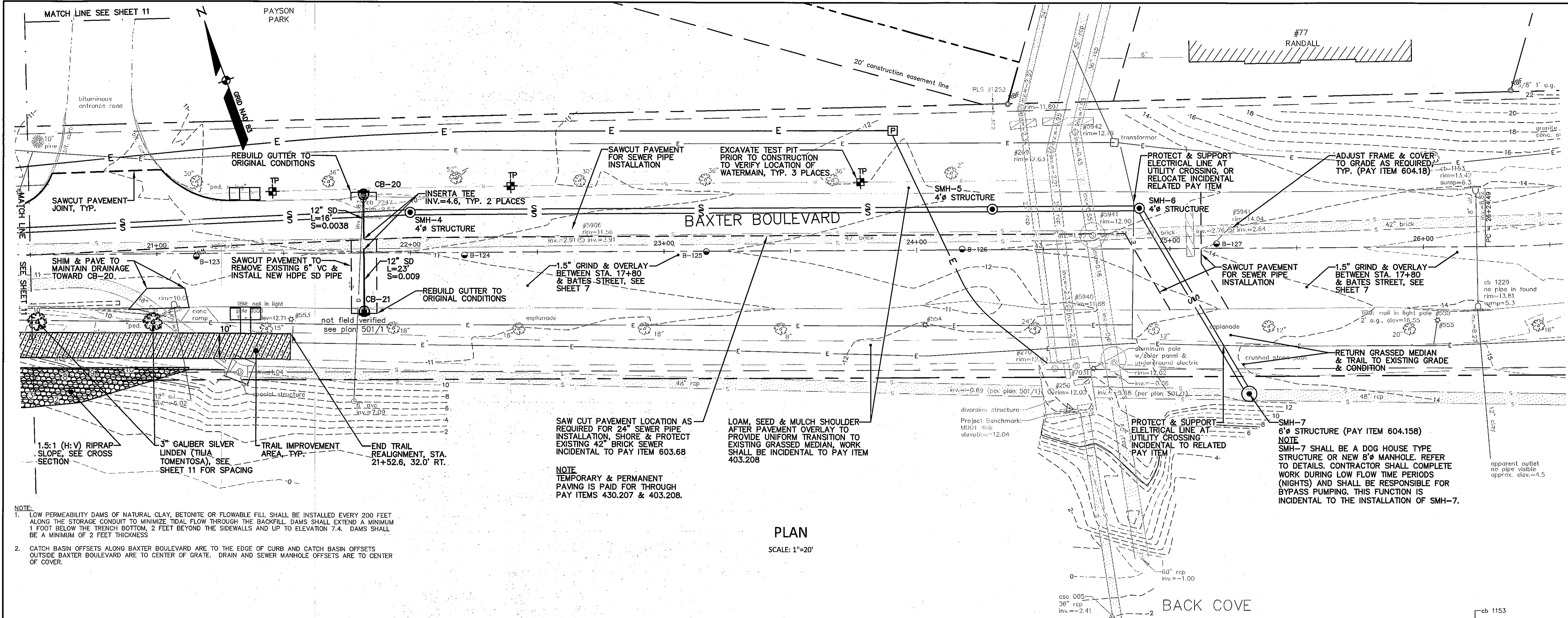
**BAXTER BOULEVARD
 NORTH STORAGE CONDUIT
 PLAN & PROFILE**
 STATIONS 15+00 TO 20+50

**CITY OF PORTLAND, MAINE
 PUBLIC SERVICES DEPARTMENT
 ENGINEERING DIVISION**

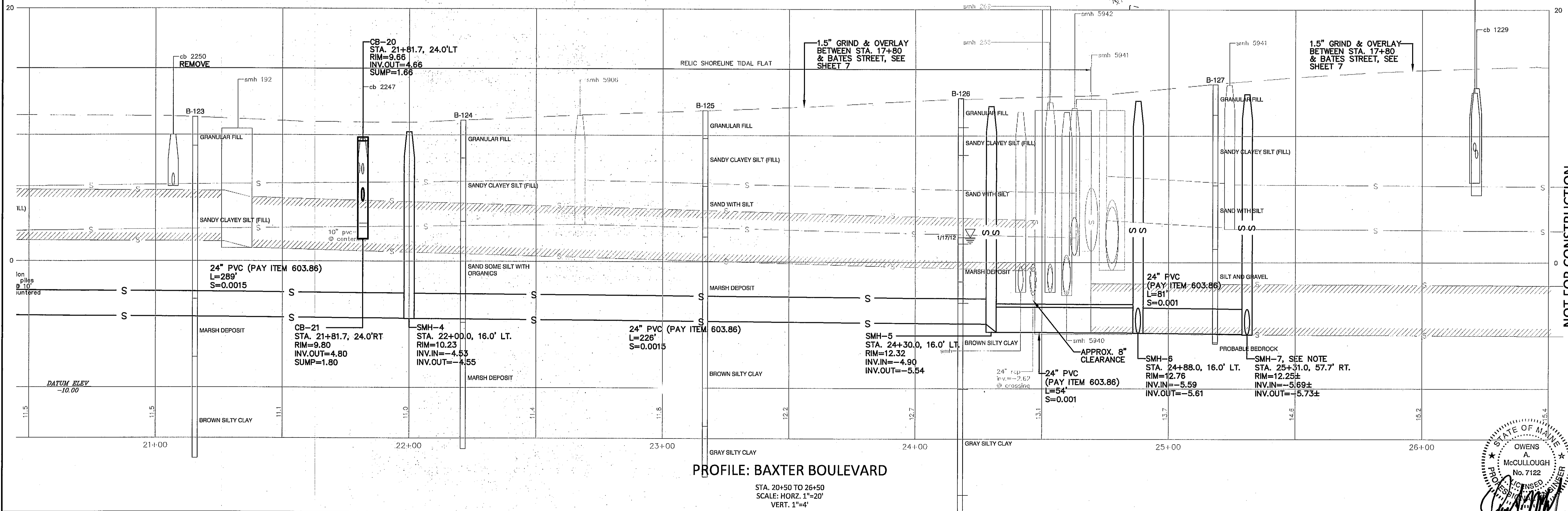
OWENS A. McCULLOUGH
 No. 7122
 LICENSED PROFESSIONAL ENGINEER

SHEET #
 11 OF 54

PLAN NUMBER



PLAN
SCALE: 1"=20'



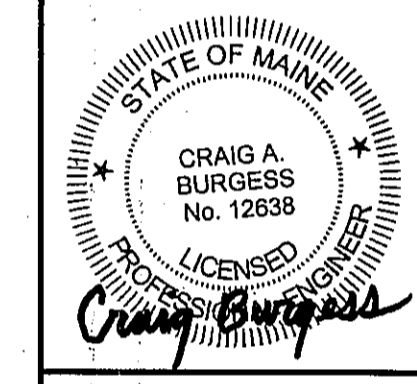
PROFILE: BAXTER BOULEVARD
STA. 20+50 TO 26+50
SCALE: HORZ. 1"=20'
VERT. 1"=4'

NOTE:
1. LOW PERMEABILITY DAMS OF NATURAL CLAY, BETONITE OR FLOWABLE FILL SHALL BE INSTALLED EVERY 200 FEET ALONG THE STORAGE CONDUIT TO MINIMIZE TIDAL FLOW THROUGH THE BACKFILL. DAMS SHALL EXTEND A MINIMUM 1 FOOT BELOW THE TRENCH BOTTOM, 2 FEET BEYOND THE SIDEWALLS AND UP TO ELEVATION 7.4. DAMS SHALL BE A MINIMUM OF 2 FEET THICKNESS.
2. CATCH BASIN OFFSETS ALONG BAXTER BOULEVARD ARE TO THE EDGE OF CURB AND CATCH BASIN OFFSETS OUTSIDE BAXTER BOULEVARD ARE TO CENTER OF GRATE. DRAIN AND SEWER MANHOLE OFFSETS ARE TO CENTER OF COVER.

LDD PROJECT NAME:
BAXTER BOULEVARD
NORTH STORAGE CONDUIT
DRAWING NAME:
09006PPI
FIELD BOOK USED:
N/A

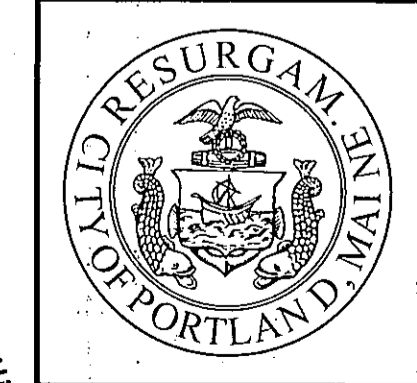
REFERENCES:
09006pp L.dwg, TAB: BAXTER 20+50-26+50

DESIGNED BY:
CANNON/CB
DRAWN BY:
BHF/CAB
CHECKED BY:
OAM
SCALE:
AS NOTED
DATE:
11-16-2012

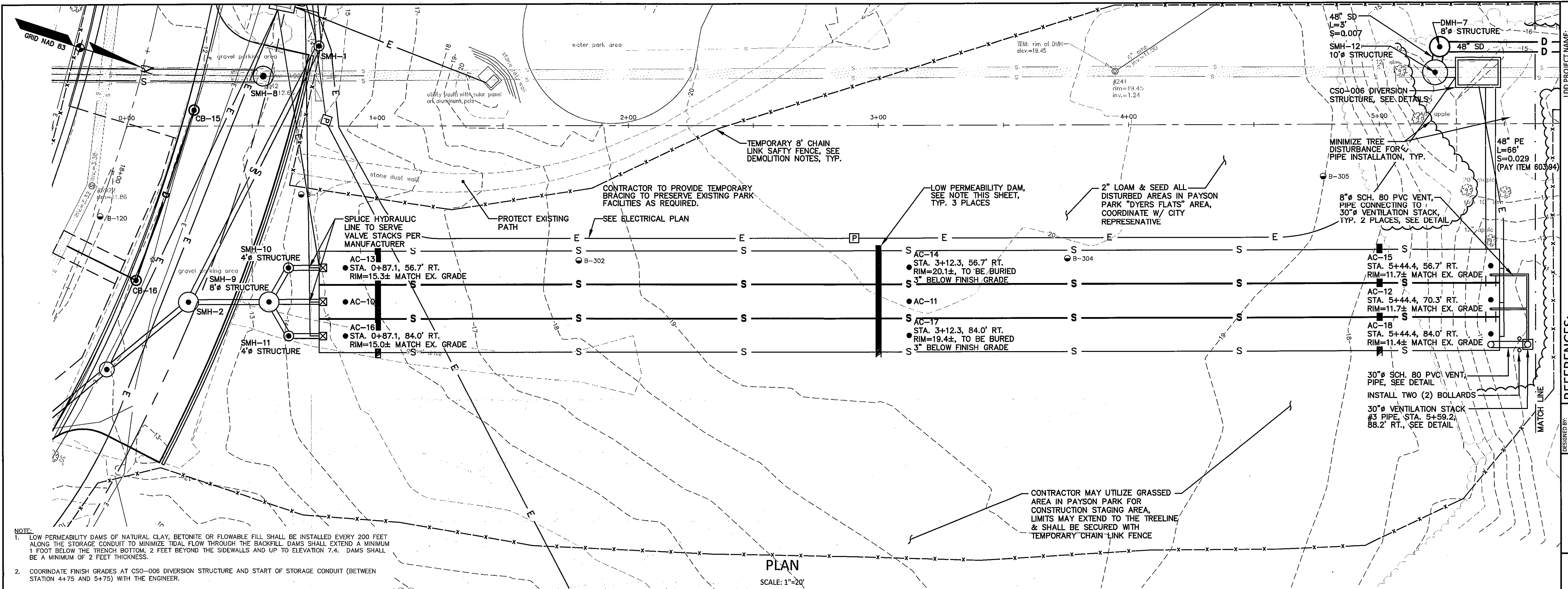


BAXTER BOULEVARD
NORTH STORAGE CONDUIT
PLAN & PROFILE
STATIONS 20+50 TO 26+50

NOT FOR CONSTRUCTION
CITY OF PORTLAND, MAINE
PUBLIC SERVICES DEPARTMENT
ENGINEERING DIVISION



SHEET #
12 OF 54
PLAN NUMBER



NOTE:

1. LOW PERMEABILITY DAMS OF NATURAL CLAY, BETONITE OR FLOWABLE FILL SHALL BE INSTALLED EVERY 200 FEET ALONG THE STORAGE CONDUIT TO MINIMIZE TIDAL FLOW THROUGH THE BACKFILL. DAMS SHALL EXTEND A MINIMUM 1 FOOT BELOW THE TRENCH BOTTOM, 2 FEET BEYOND THE SIDEWALLS AND UP TO ELEVATION 7.4. DAMS SHALL BE A MINIMUM OF 2 FEET THICKNESS.
2. COORDINATE FINISH GRADES AT CSO-006 DIVERSION STRUCTURE AND START OF STORAGE CONDUIT (BETWEEN STATION 4+75 AND 5+75) WITH THE ENGINEER.

PLAN
SCALE: 1"=20'

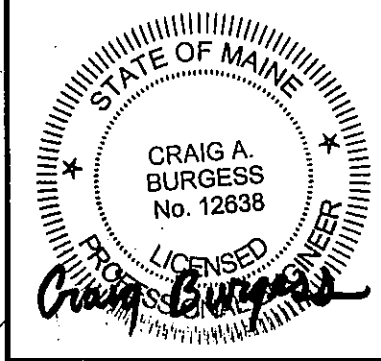
PROJECT NAME:
BAXTER BOULEVARD
NORTH STORAGE CONDUIT

DRAWING NAME:
09006PP2

FIELD BOOK USED:
N/A

REFERENCES:
09006pp2.dwg, TAB: X-COUNTRY_04-00-5+50

DESIGNED BY:	DAW/CAB
DRAWN BY:	BRF/CAB
CHECKED BY:	COAM
SCALE:	AS NOTED
DATE:	11-16-2012



**CROSS COUNTRY
OFF BAXTER BOULEVARD**

PLAN & PROFILE

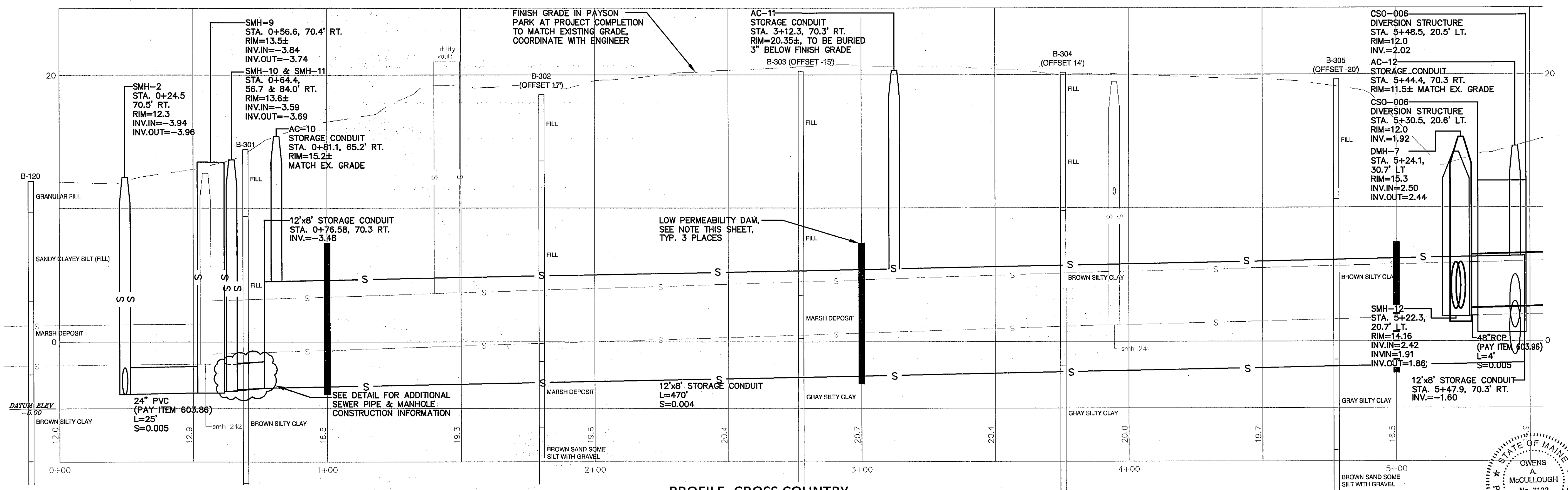
STATIONS 0+00 TO 5+50

**CITY OF PORTLAND, MAINE
PUBLIC SERVICES DEPARTMENT
ENGINEERING DIVISION**

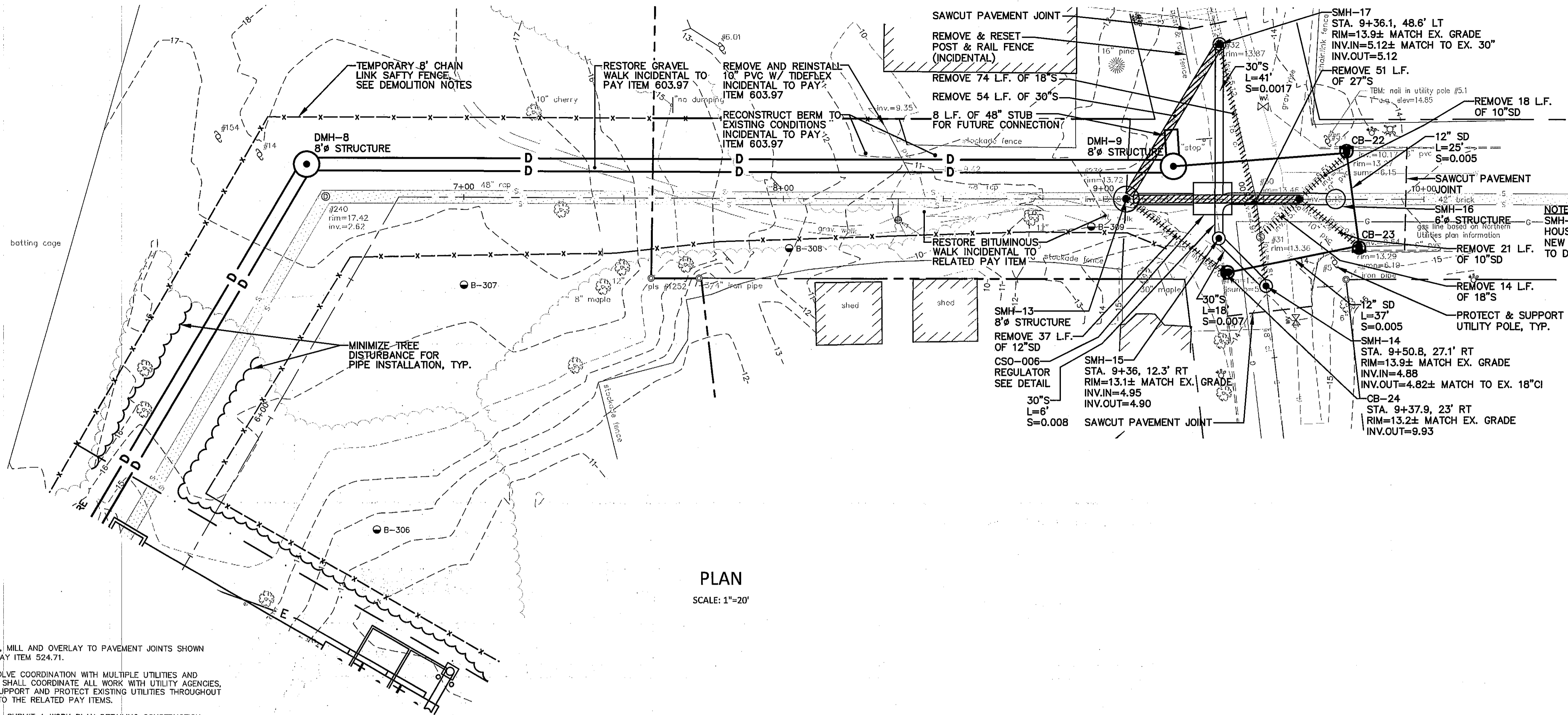
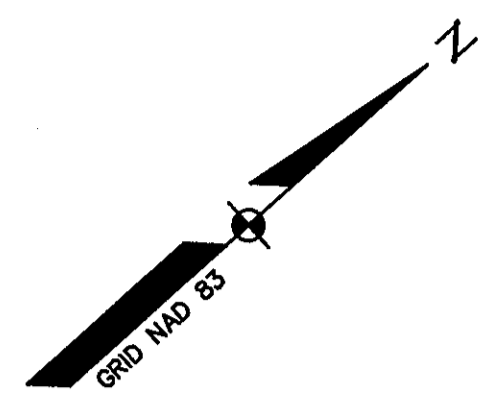


SHEET #
13 OF 54

PLAN NUMBER

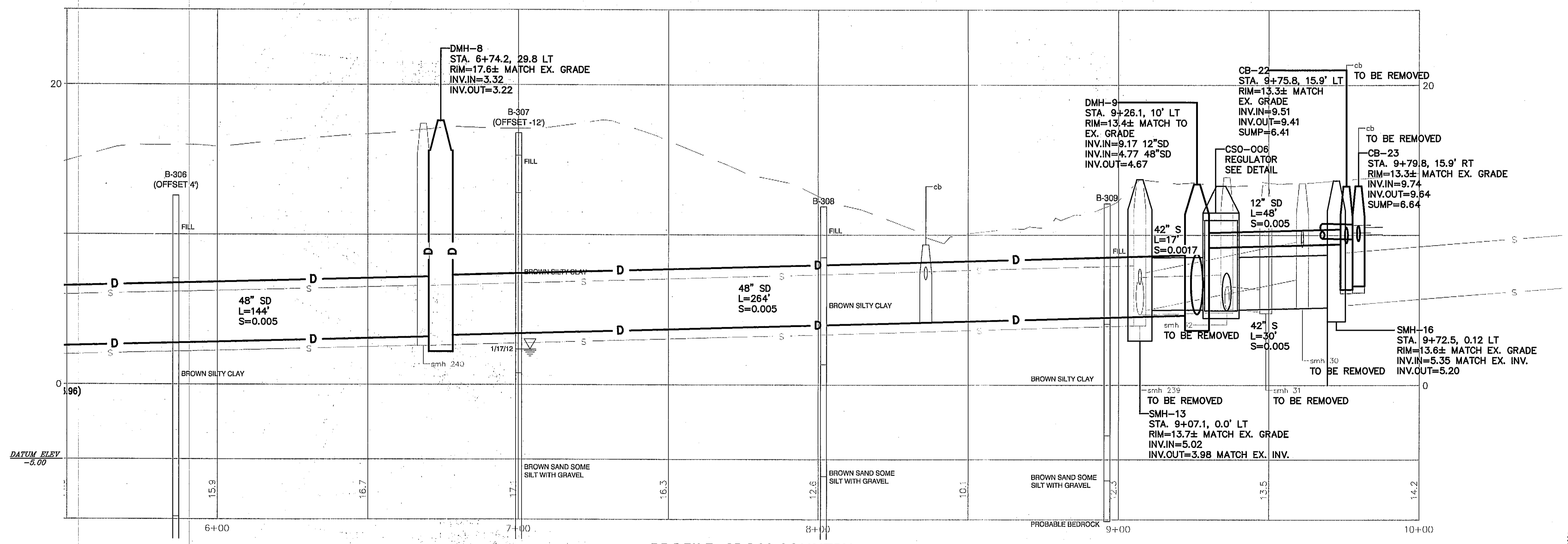


PROFILE: CROSS COUNTRY
STA. 0+00 TO 5+50
SCALE: HORIZ. 1"=20'
VERT. 1"=4'



PLAN
SCALE: 1"=20'

- NOTE:
- UPON COMPLETION OF INTERSECTION WORK, TRENCH PAVING, MILL AND OVERLAY TO PAVEMENT JOINTS SHOWN (1.5" MILL & OVERLAY). WORK SHALL BE INCIDENTAL TO PAY ITEM 524.71.
 - IMPROVEMENT WORK AT FRONT AND JOHANSEN STREET INVOLVE COORDINATION WITH MULTIPLE UTILITIES AND WORK WITHIN CLOSE PROXIMITY TO UTILITIES. CONTRACTOR SHALL COORDINATE ALL WORK WITH UTILITY AGENCIES, COMPLY WITH UTILITY AGENCY REQUIREMENTS AND SHALL SUPPORT AND PROTECT EXISTING UTILITIES THROUGHOUT CONSTRUCTION. WORK SHALL BE CONSIDERED INCIDENTAL TO THE RELATED PAY ITEMS.
 - PRIOR TO INTERSECTION IMPROVEMENTS, CONTRACTOR SHALL SUBMIT A WORK PLAN DETAILING CONSTRUCTION TIMING, BYPASS PUMPING, TRAFFIC CONTROL AND SEQUENCING/ TIMING OF WORK. CONTRACTOR SHALL MAINTAIN AT LEAST ONE LANE OF TRAFFIC THROUGH INTERSECTION AT ALL TIMES. WORK FOR IMPROVEMENTS SHALL BE CONSIDERED INCIDENTAL TO THE RELATED PAY ITEMS.

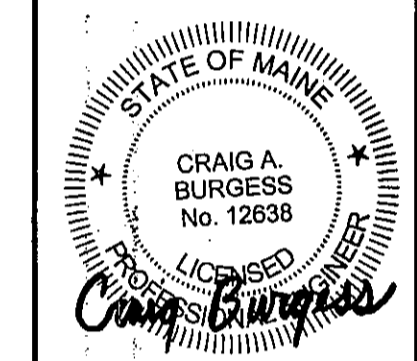


PROFILE: CROSS COUNTRY
STA. 0+00 TO 5+50
SCALE: HORZ. 1"=20'
VERT. 1"=4'

LDD PROJECT NAME:
BAXTER BOULEVARD
NORTH STORAGE CONDUIT
DRAWING NAME:
09006pp2
FIELD BOOK USED:
N/A

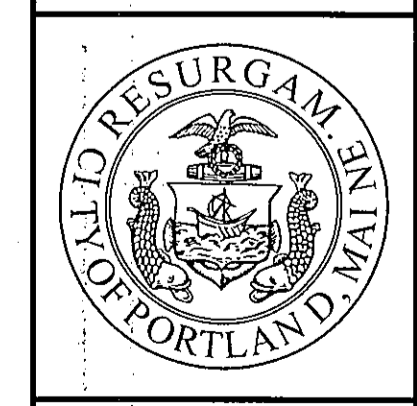
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09006pp2.dwg, TAB: X-COUNTRY 5+50-10+00

DESIGNED BY: OAK/CAB	DRAWN BY: BREF/CAB	CHECKED BY: CAM	SCALE: AS NOTED	DATE: 11-16-2012
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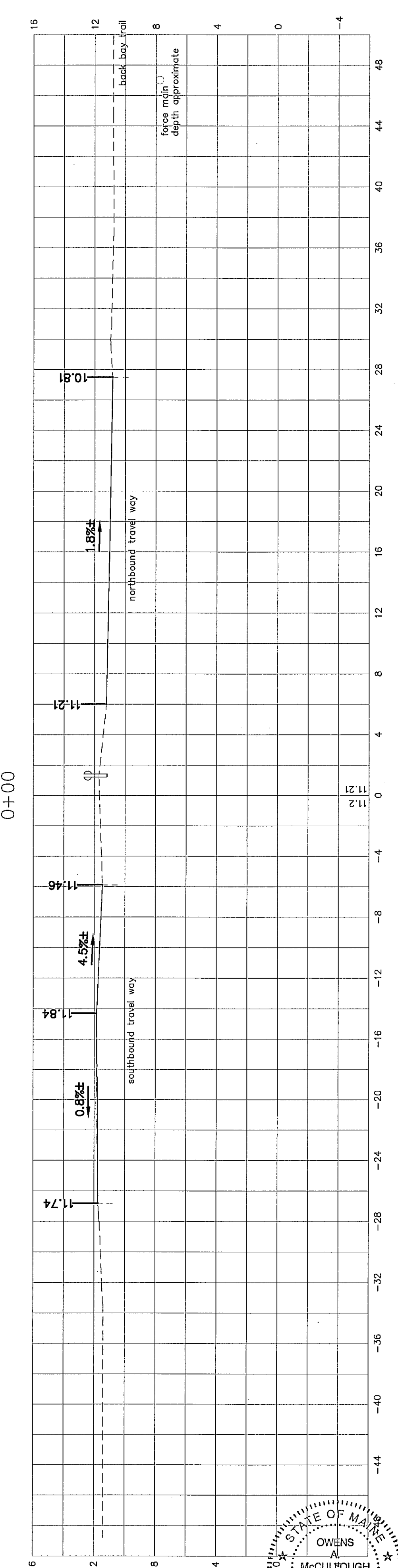
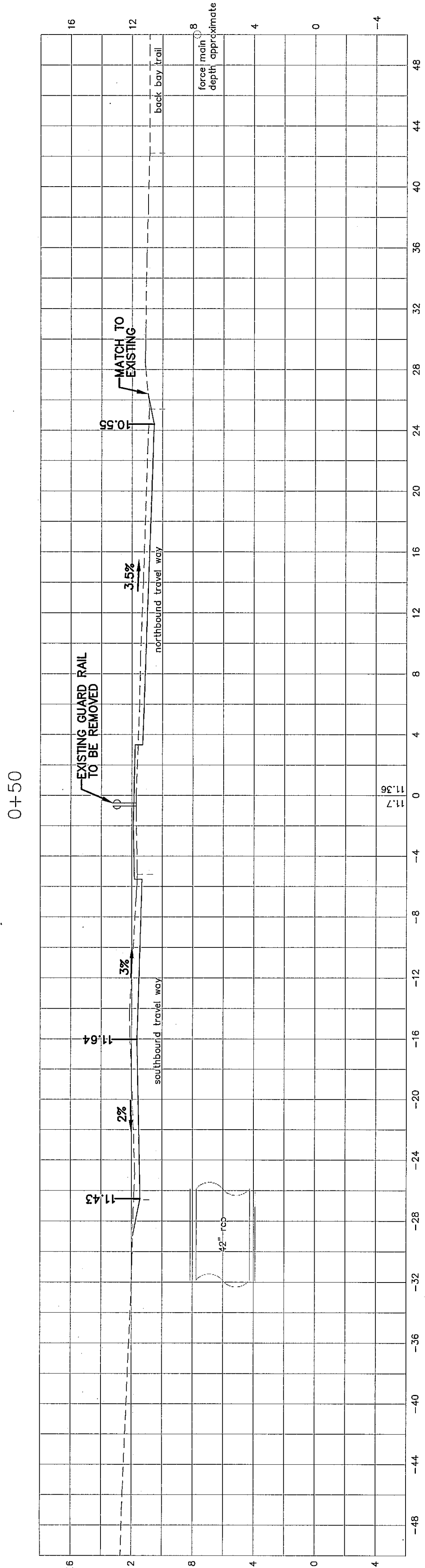
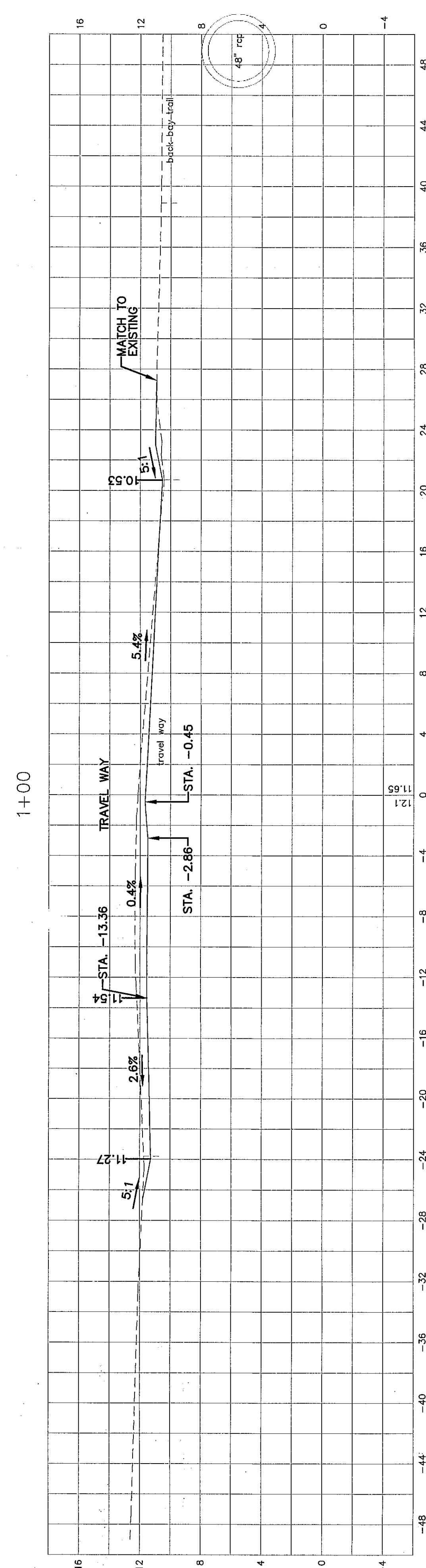
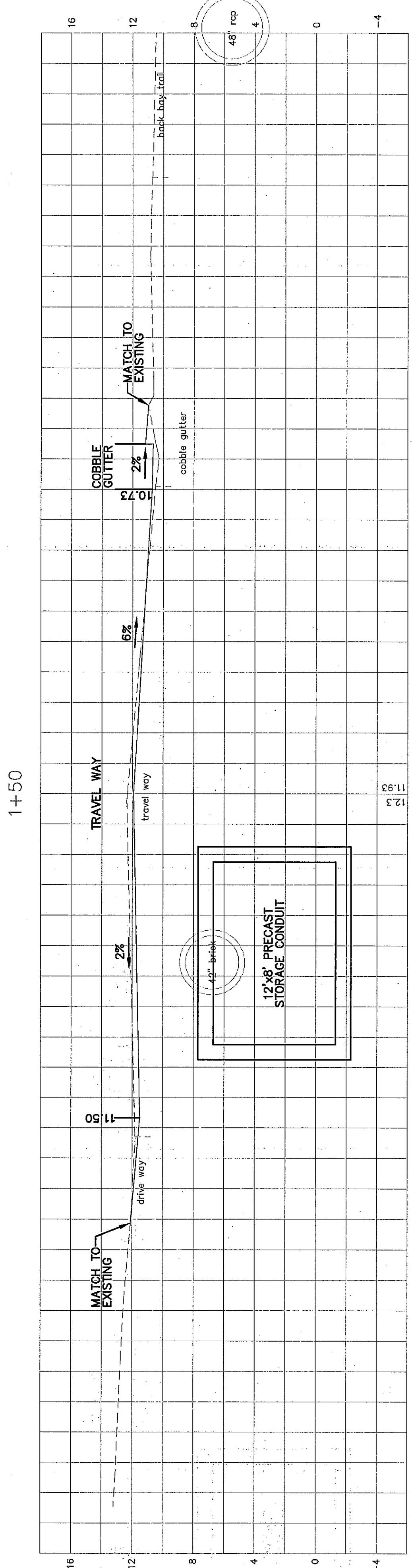
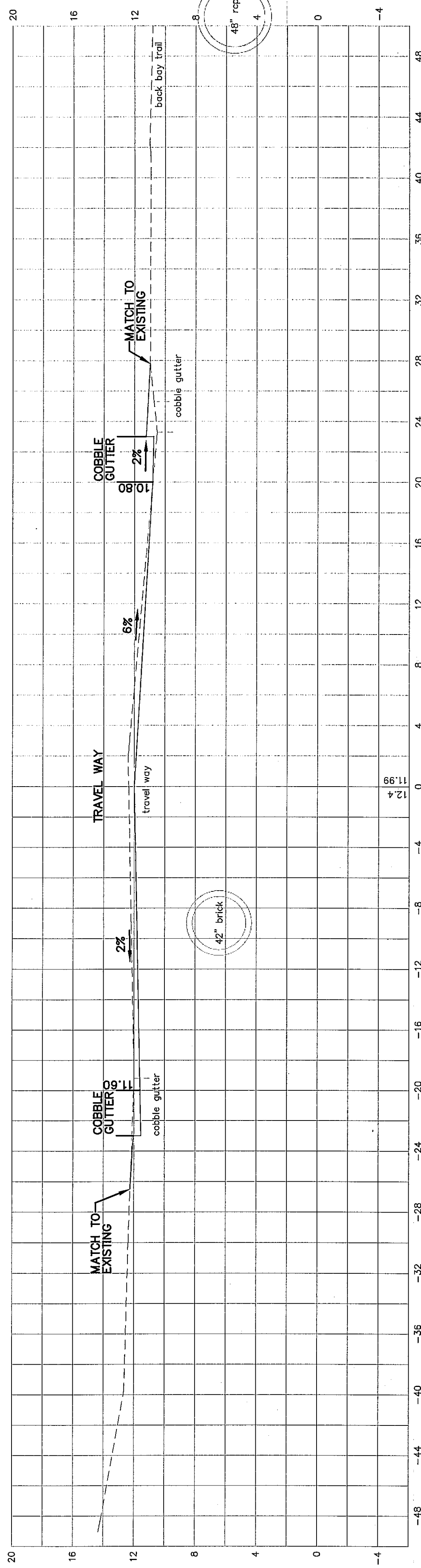


CROSS COUNTRY
OFF BAXTER BOULEVARD
PLAN & PROFILE
STATIONS 5+50 TO 26+50

CITY OF PORTLAND, MAINE
PUBLIC SERVICES DEPARTMENT
ENGINEERING DIVISION



SHEET #
14 OF 54
PLAN NUMBER

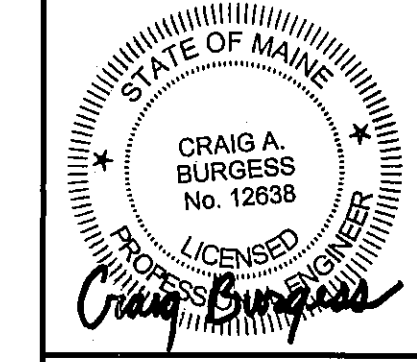


NOTE:
 ONLY MAJOR SUBSURFACE UTILITIES ARE SHOWN IN THE CROSS-SECTIONS EVERY 200 FEET. SEE PLAN AND PROFILE DRAWINGS FOR ADDITIONAL UTILITY INFORMATION.

LDD PROJECT NAME:
 BAXTER BOULEVARD
 NORTH STORAGE CONDUIT
 DRAWING NAME:
 09006X51
 FIELD BOOK USED:
 N/A

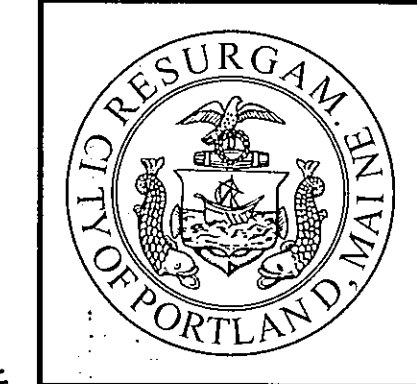
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SCALE:	1"=5'
DATE:	11-15-2012

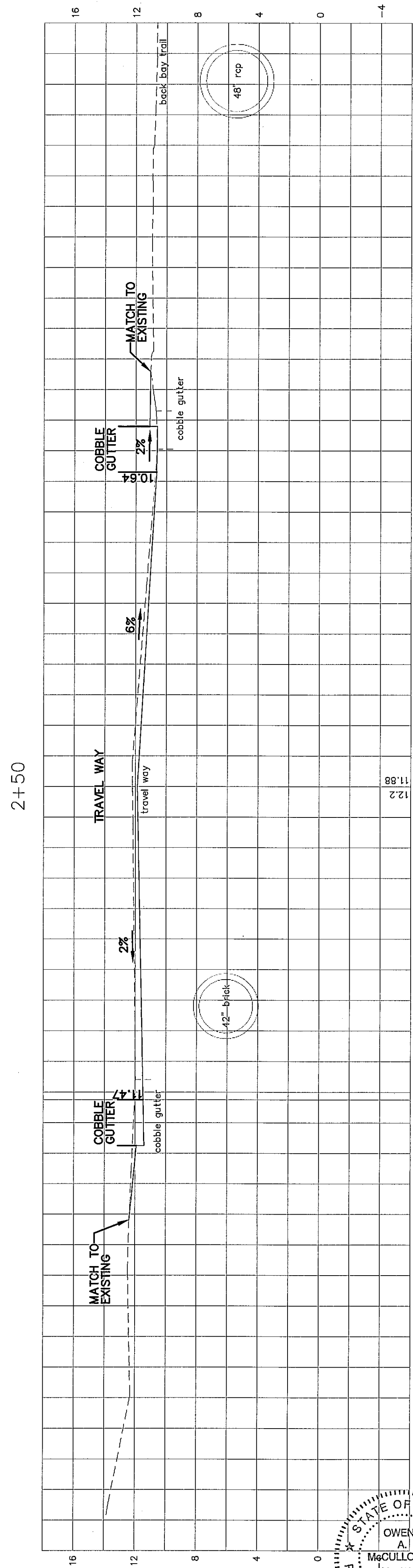
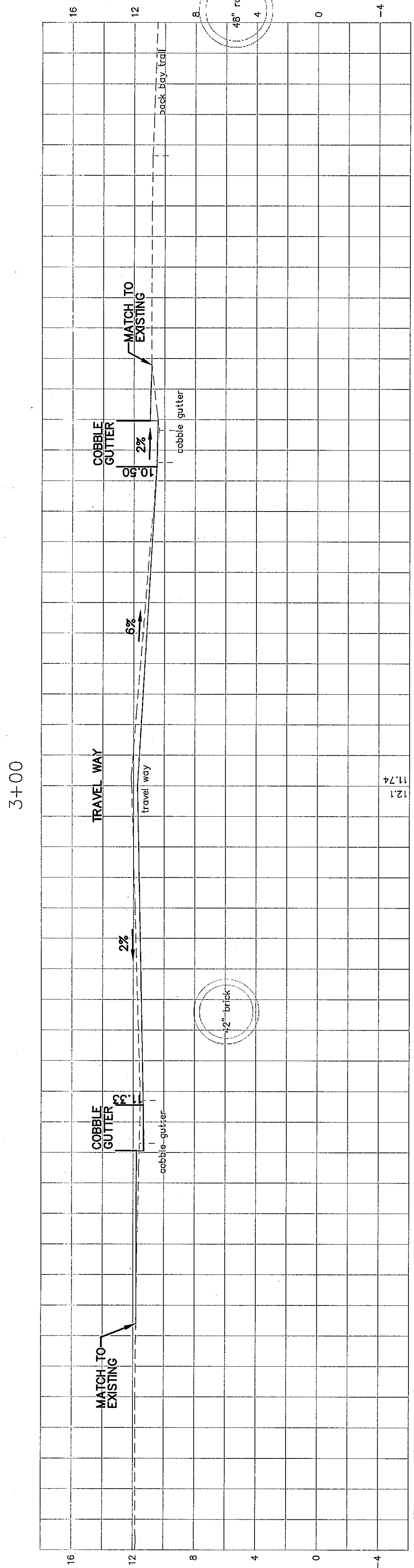
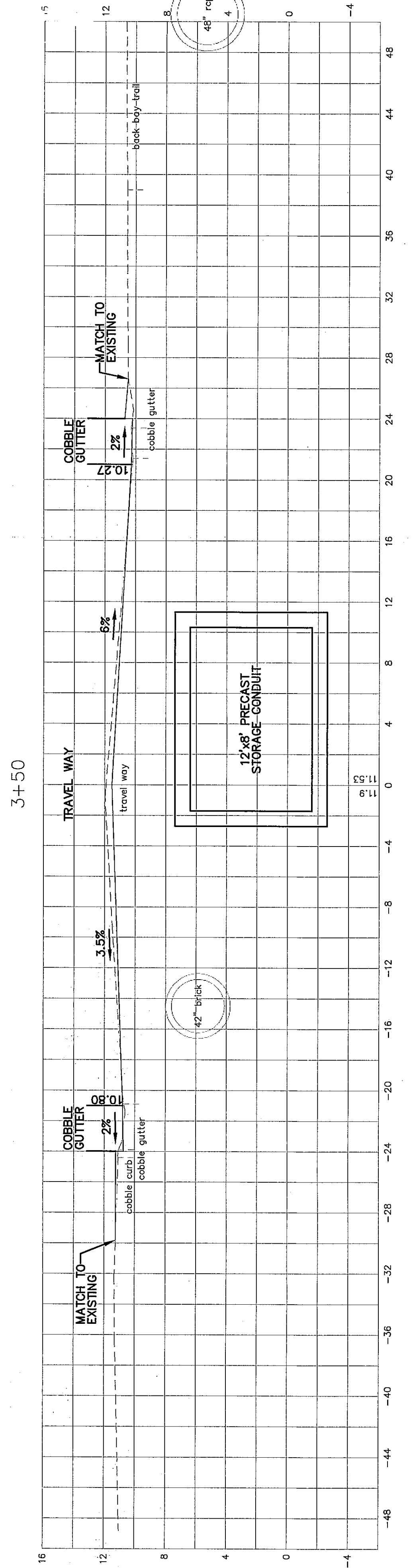
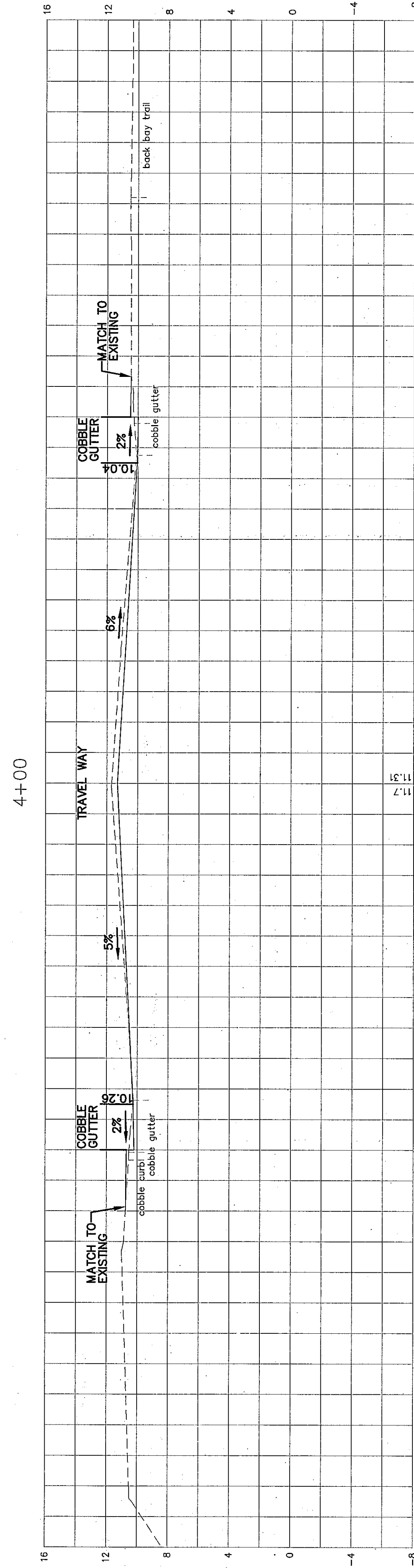
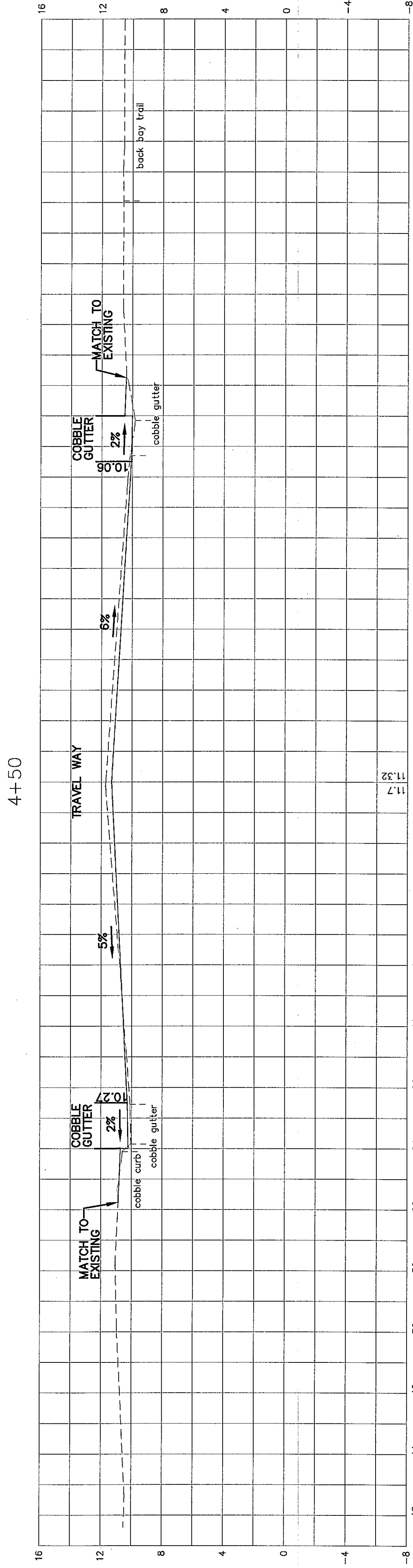


**BAXTER BOULEVARD
 NORTH STORAGE CONDUIT
 CROSS SECTIONS**
 STATIONS 0+00 TO 2+00

CITY OF PORTLAND, MAINE
 PUBLIC SERVICES DEPARTMENT
 ENGINEERING DIVISION

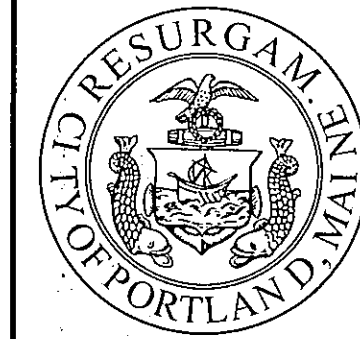


SHEET #
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 PLAN NUMBER



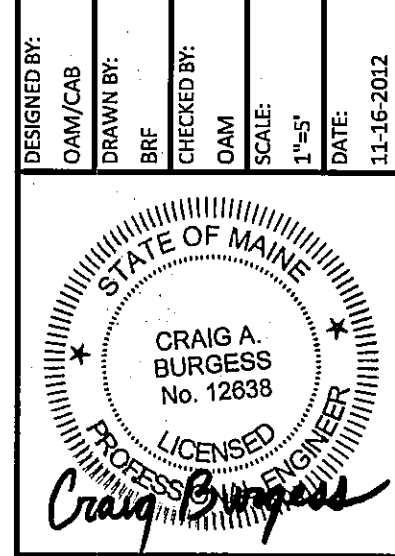
NOTE:
ONLY MAJOR SUBSURFACE UTILITIES ARE SHOWN IN THE CROSS-SECTIONS EVERY 200 FEET. SEE PLAN AND PROFILE DRAWINGS FOR ADDITIONAL UTILITY INFORMATION.

STATE OF MAINE
OWENS
No. 7122
LICENSED PROFESSIONAL ENGINEER



CITY OF PORTLAND, MAINE
PUBLIC SERVICES DEPARTMENT
ENGINEERING DIVISION

BAXTER BOULEVARD
NORTH STORAGE CONDUIT
CROSS SECTIONS
STATIONS 2+50 TO 4+50



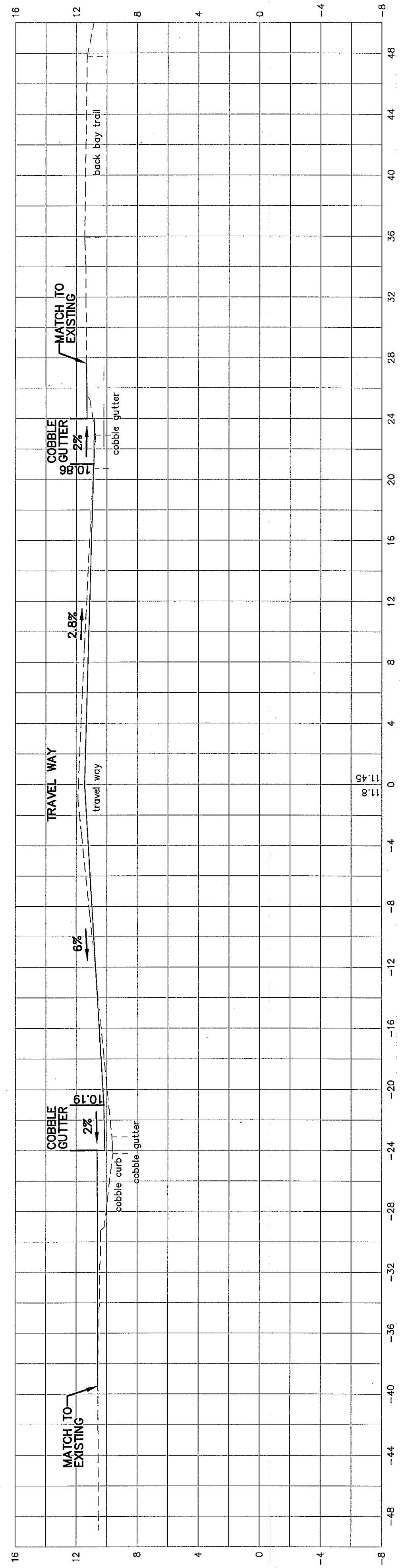
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DATE: 11-16-2012

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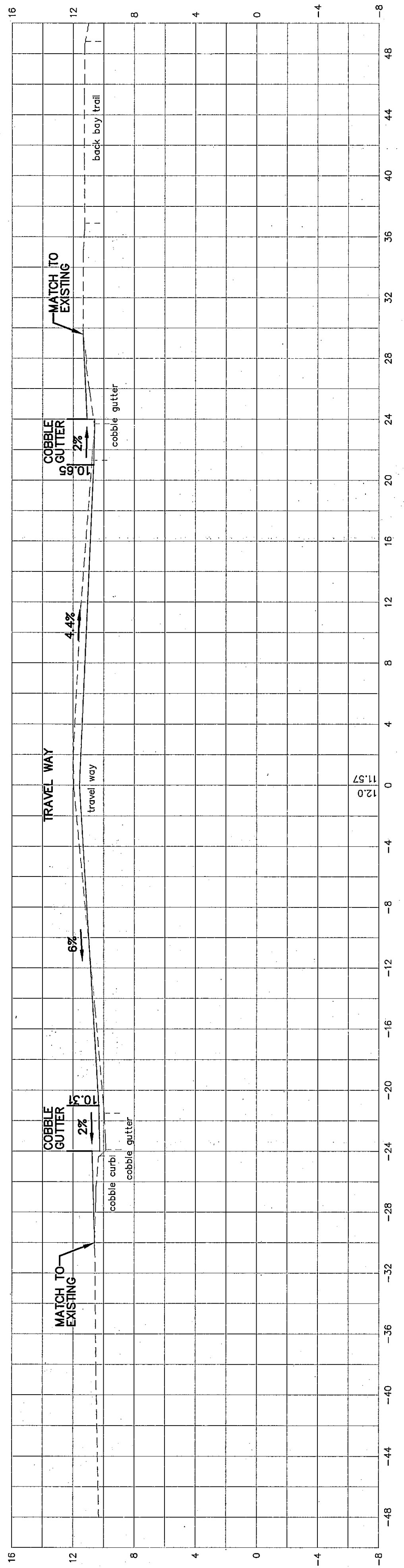
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BAXTER BOULEVARD
NORTH STORAGE CONDUIT
DRAWING NAME:
Q9006XSL
FIELD BOOK USED:
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SHEET #
16 OF 54
PLAN NUMBER

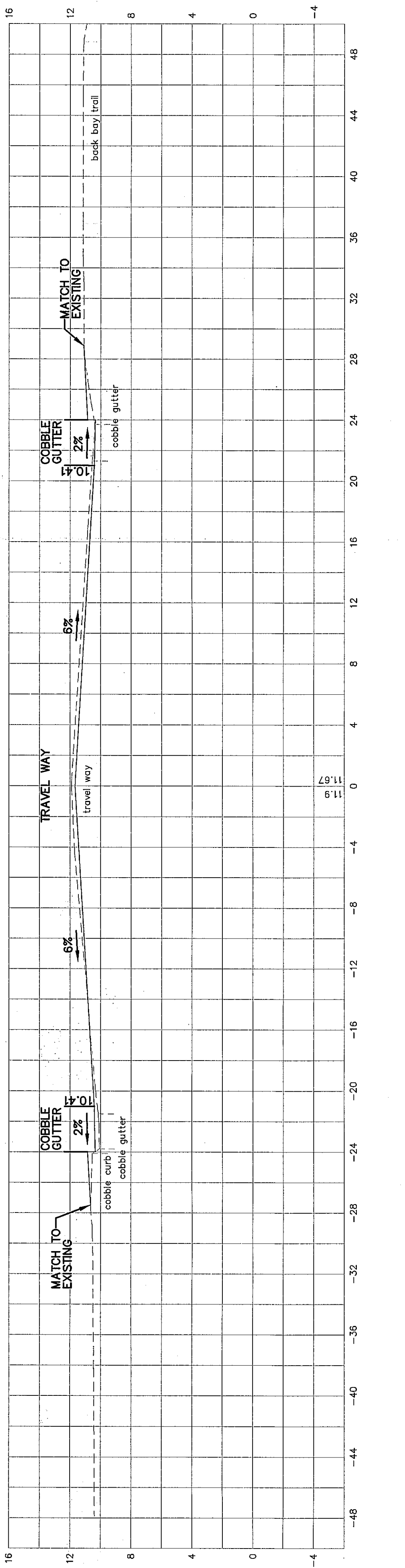
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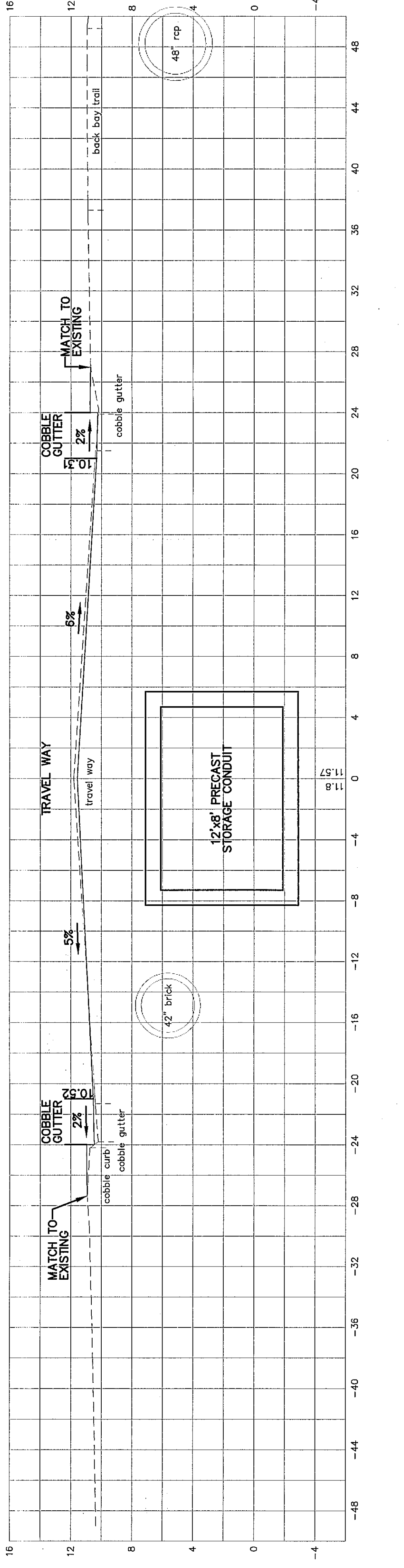
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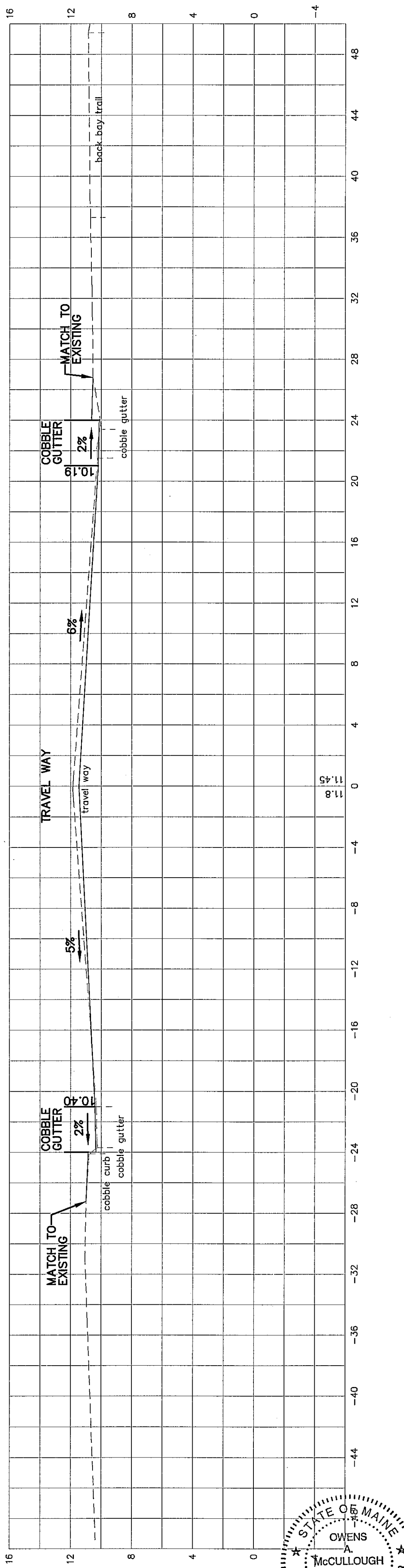
6+00



5+50



5+00



NOTE:
 ONLY MAJOR SUBSURFACE UTILITIES ARE SHOWN IN THE CROSS-SECTIONS EVERY 200 FEET. SEE PLAN AND PROFILE DRAWINGS FOR ADDITIONAL UTILITY INFORMATION.

STATE OF MAINE
 OWENS
 McCULLOUGH
 No. 7122
 LICENSED PROFESSIONAL ENGINEER



CITY OF PORTLAND, MAINE
 PUBLIC SERVICES DEPARTMENT
 ENGINEERING DIVISION

BAXTER BOULEVARD
 NORTH STORAGE CONDUIT
 CROSS SECTIONS
 STATIONS 5+00 TO 7+00

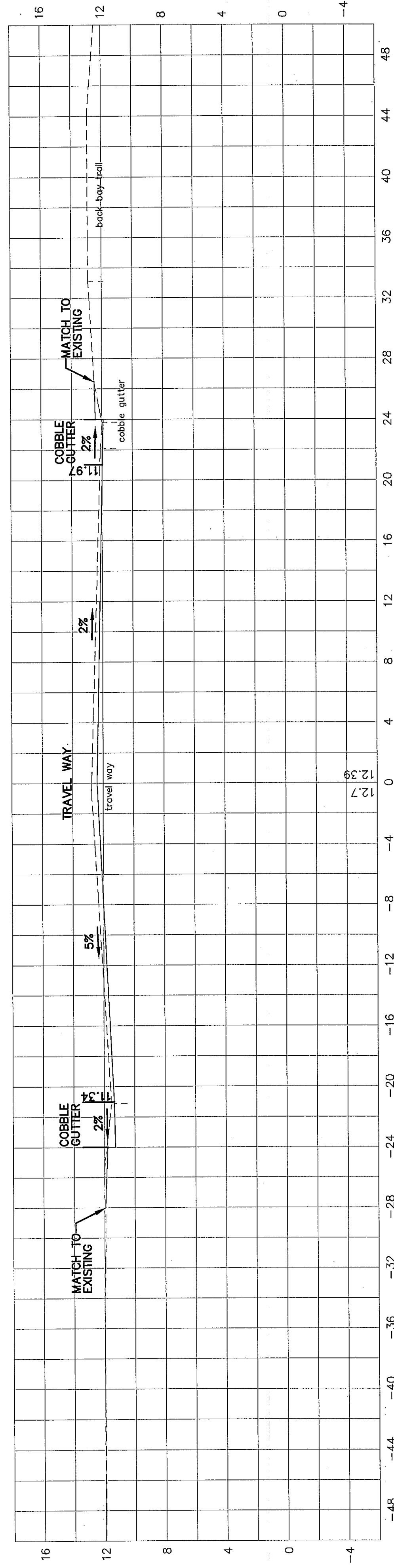
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REFERENCES:
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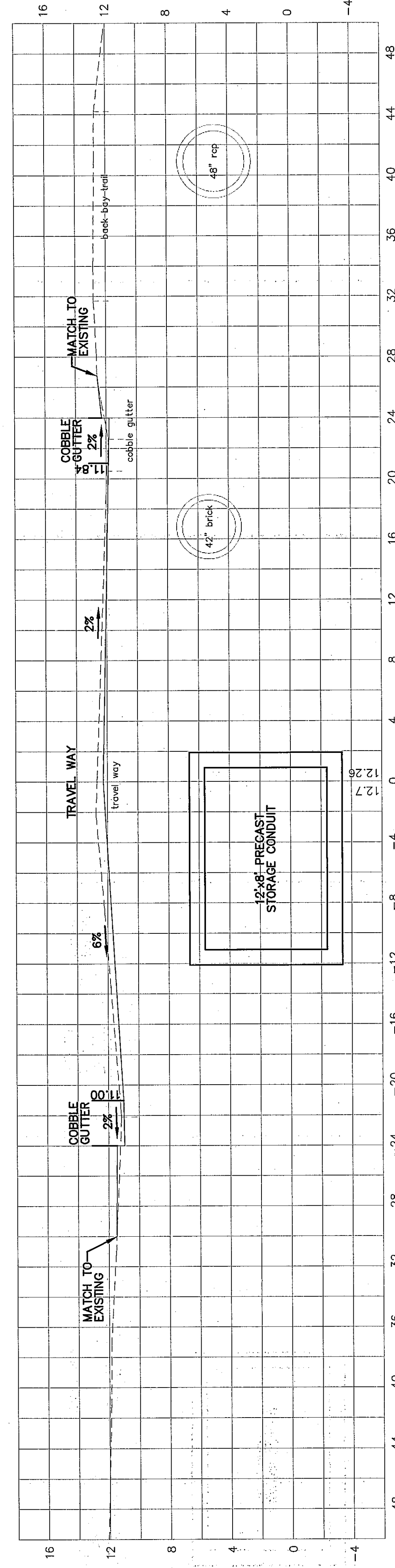
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 BAXTER BOULEVARD
 NORTH STORAGE CONDUIT
 DRAWING NAME:
 0900BXS1
 FIELD BOOK USED:
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SHEET #
 17 OF 54
 PLAN NUMBER

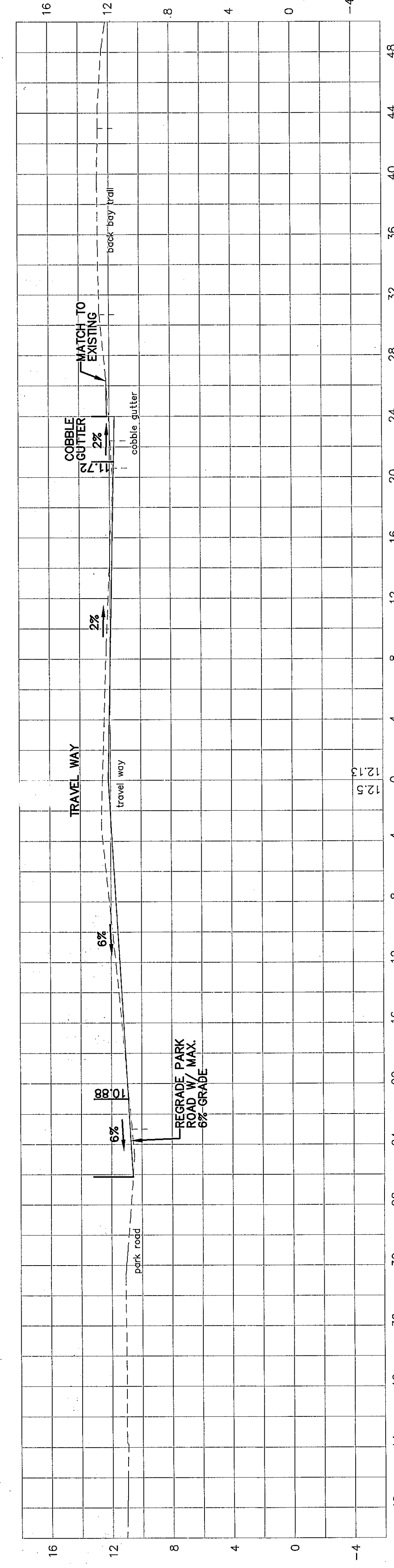
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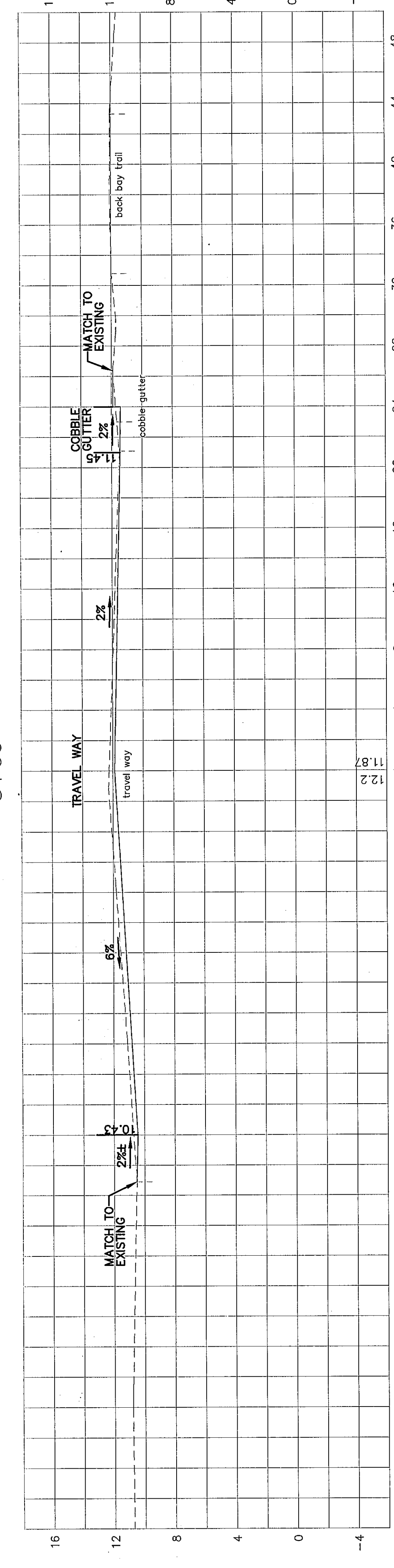
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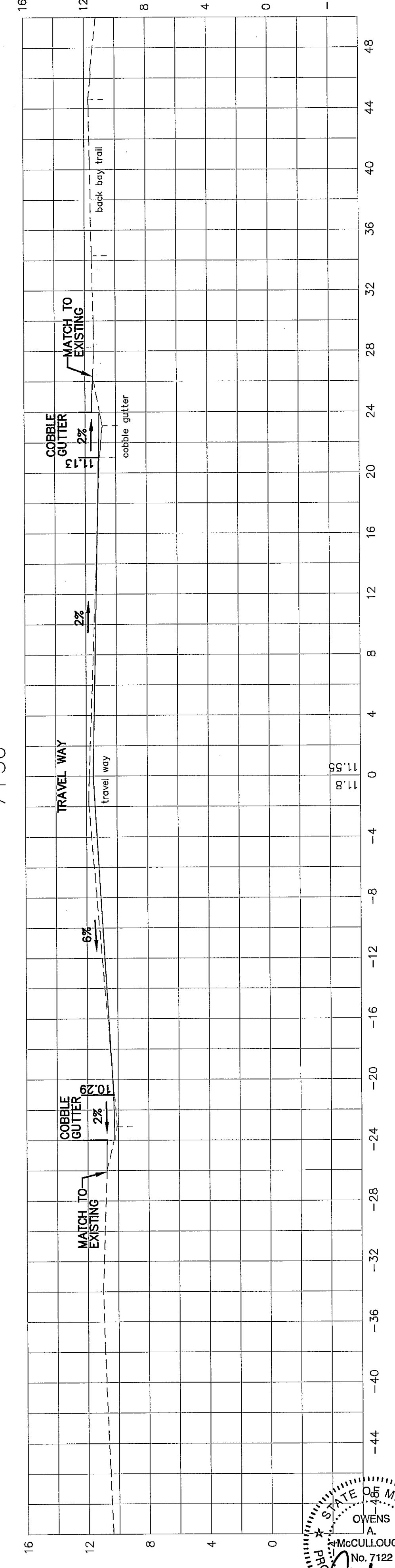
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8+00



7+50

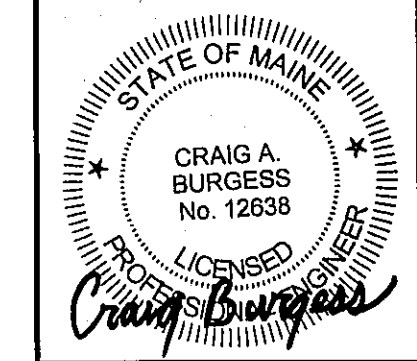


NOTE:
 ONLY MAJOR SUBSURFACE UTILITIES ARE SHOWN IN THE CROSS-SECTIONS EVERY 200 FEET. SEE PLAN AND PROFILE DRAWINGS FOR ADDITIONAL UTILITY INFORMATION.

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 BAXTER BOULEVARD
 NORTH STORAGE CONDUIT
 DRAWING NAME:
 09006xsl
 FIELD BOOK USED:
 N/A

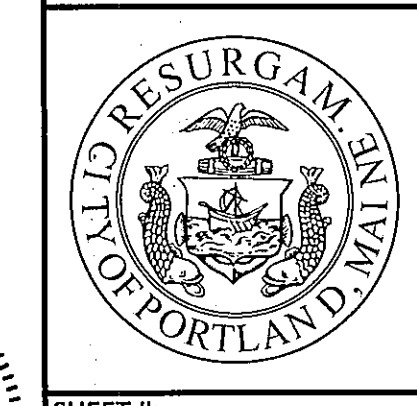
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DESIGNED BY: DAM/CAS	DRAWN BY: BIF	CHECKED BY: DAM	SCALE: 1"=5'	DATE: 11-16-2012
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**BAXTER BOULEVARD
 NORTH STORAGE CONDUIT
 CROSS SECTIONS**
 STATIONS 7+50 TO 9+50

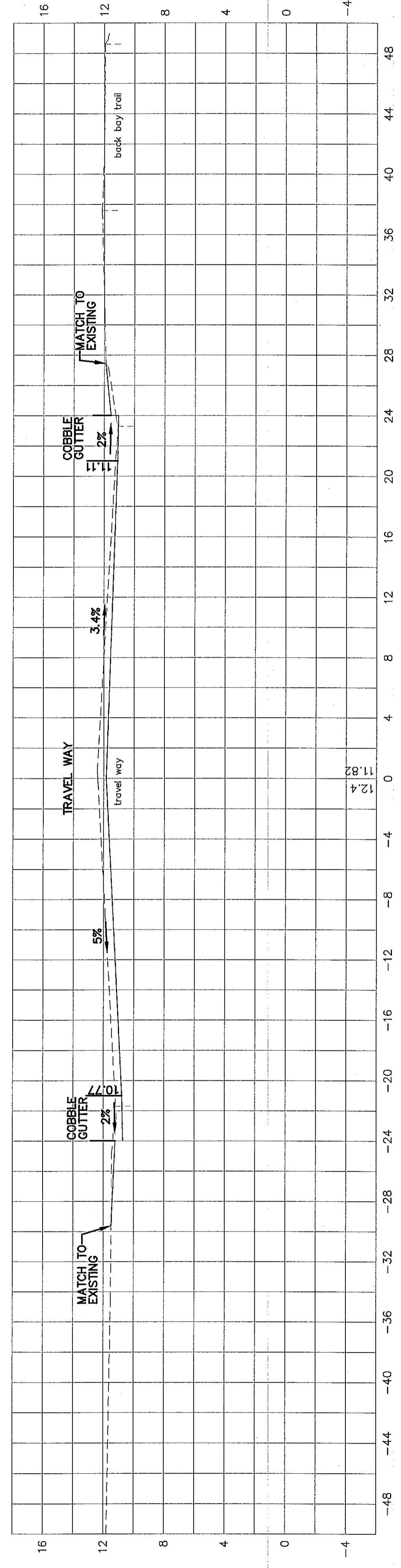
CITY OF PORTLAND, MAINE
 PUBLIC SERVICES DEPARTMENT
 ENGINEERING DIVISION



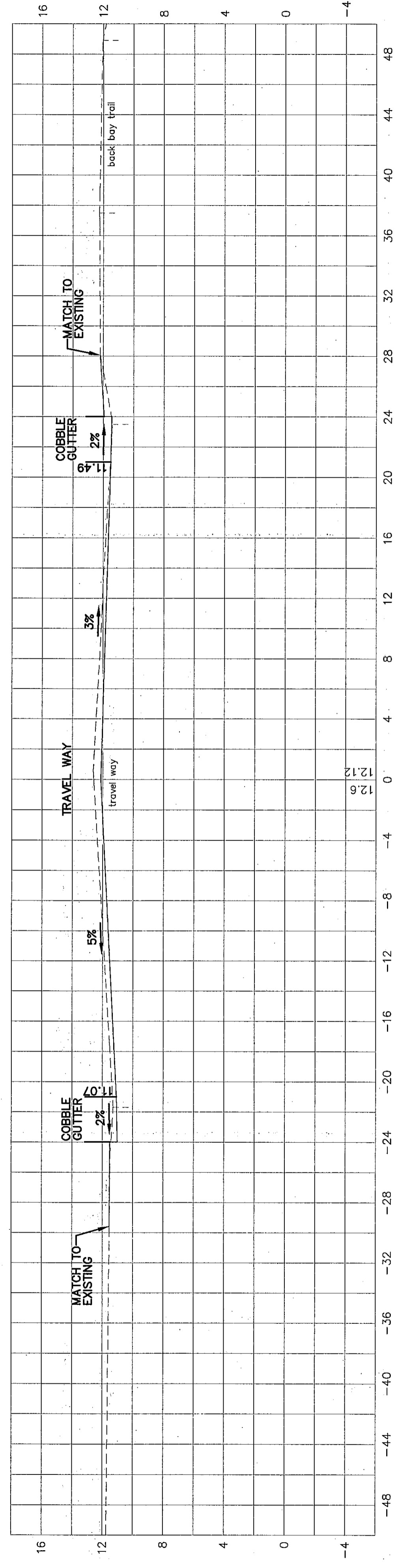
SHEET #
 18 OF 54
 PLAN NUMBER

STATE OF MAINE
 PROFESSIONAL ENGINEER
 CRAIG A. BURGESS
 No. 12638

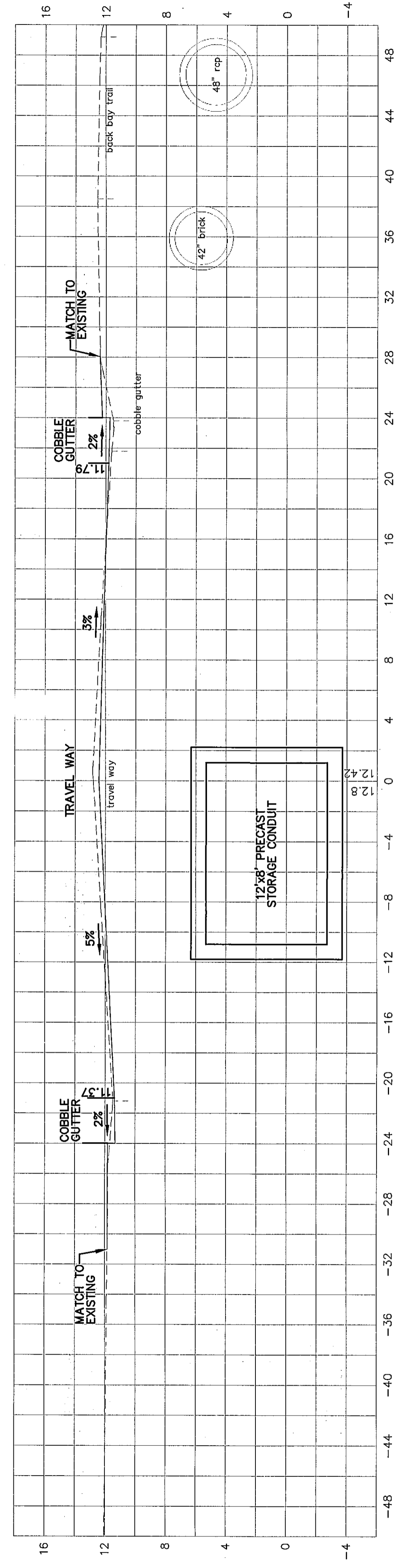
12+00



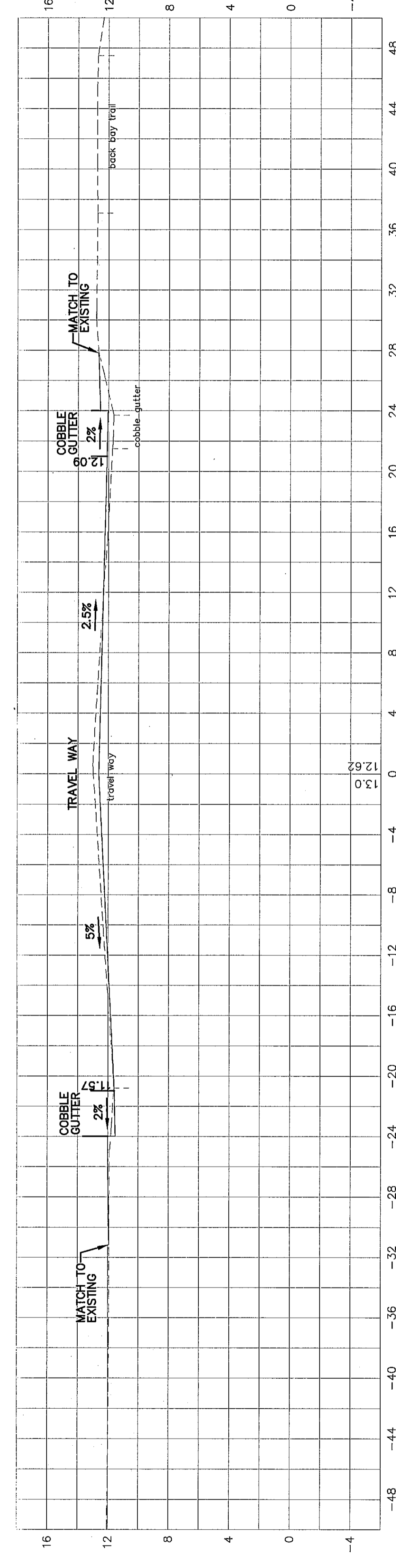
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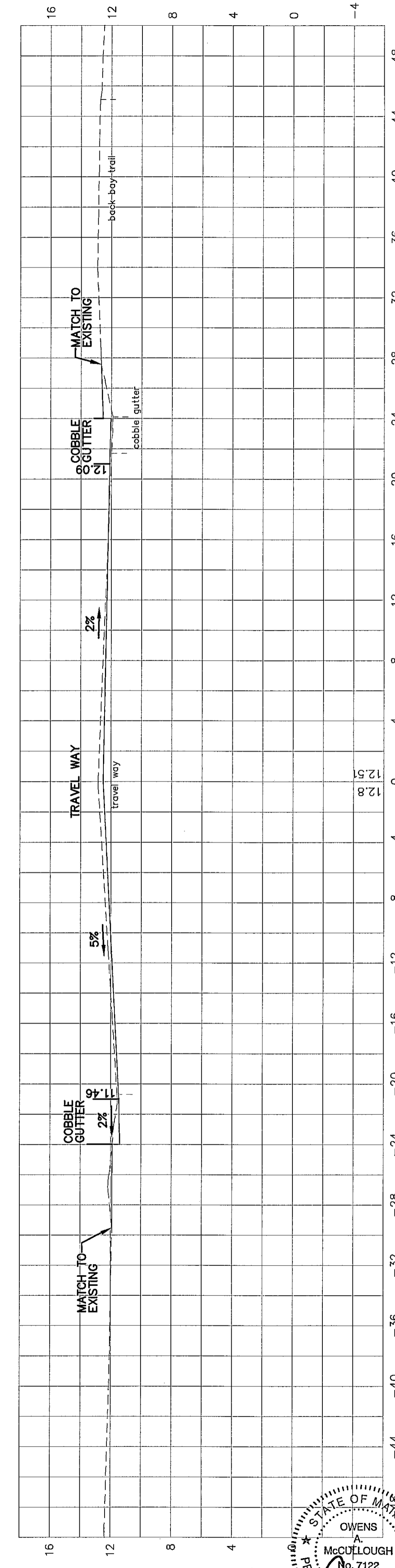
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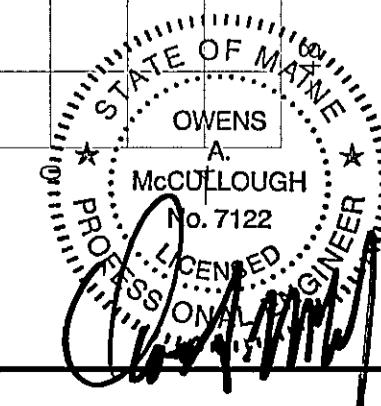
10+50



10+00



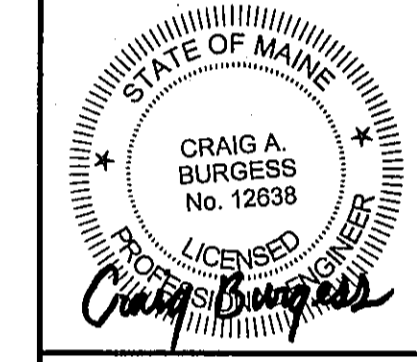
NOTE:
 ONLY MAJOR SUBSURFACE UTILITIES ARE SHOWN IN THE CROSS-SECTIONS EVERY 200 FEET. SEE PLAN AND PROFILE DRAWINGS FOR ADDITIONAL UTILITY INFORMATION.



SHEET #
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 PLAN NUMBER

CITY OF PORTLAND, MAINE
 PUBLIC SERVICES DEPARTMENT
 ENGINEERING DIVISION

BAXTER BOULEVARD
 NORTH STORAGE CONDUIT
 CROSS SECTIONS
 STATIONS 10+00 TO 12+00

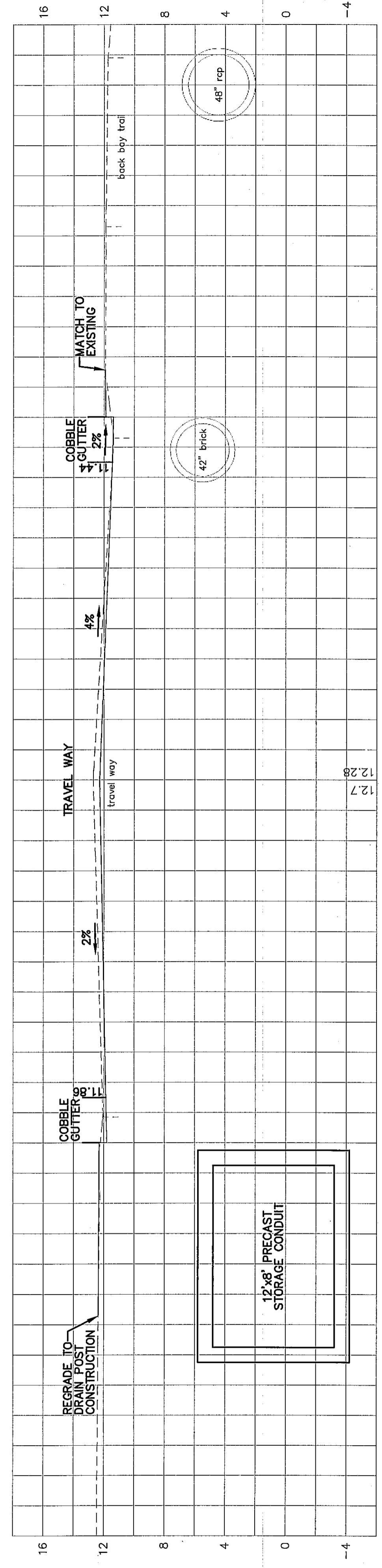


REFERENCES:
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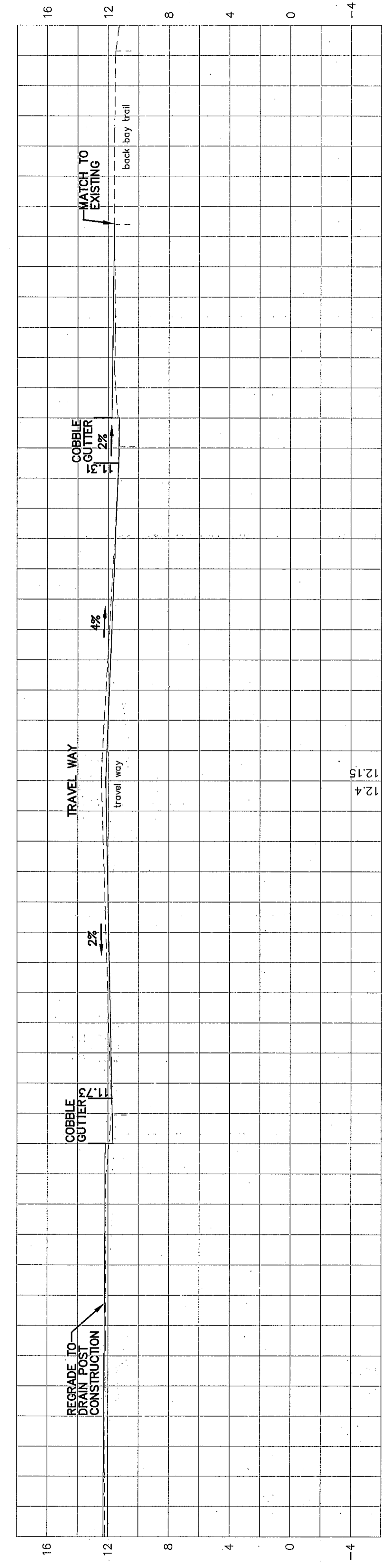
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 DATE: 11-16-2012

LDD PROJECT NAME:
 BAXTER BOULEVARD
 NORTH STORAGE CONDUIT
 DRAWING NAME:
 09006XST1
 FIELD BOOK USED:
 N/A

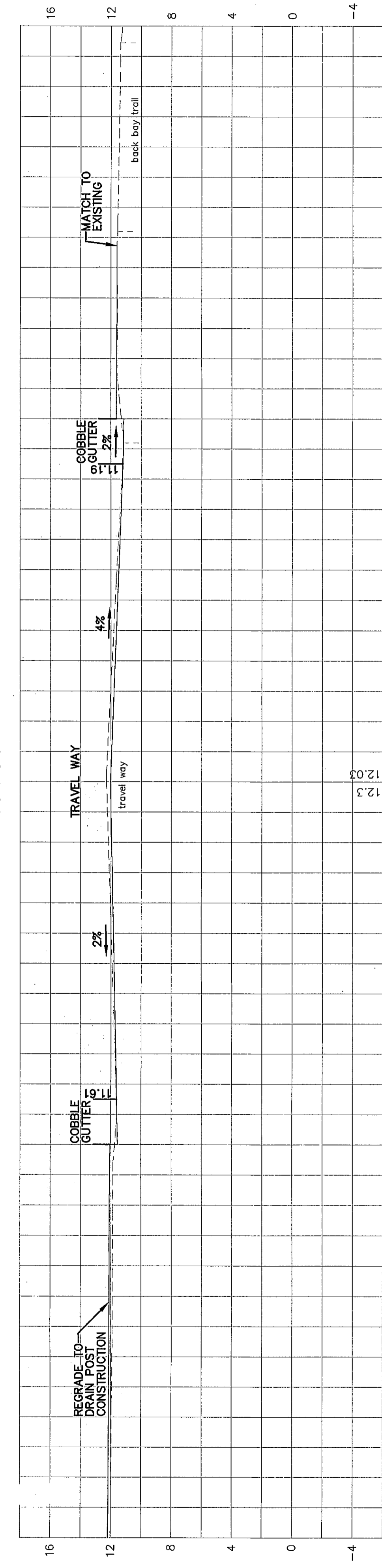
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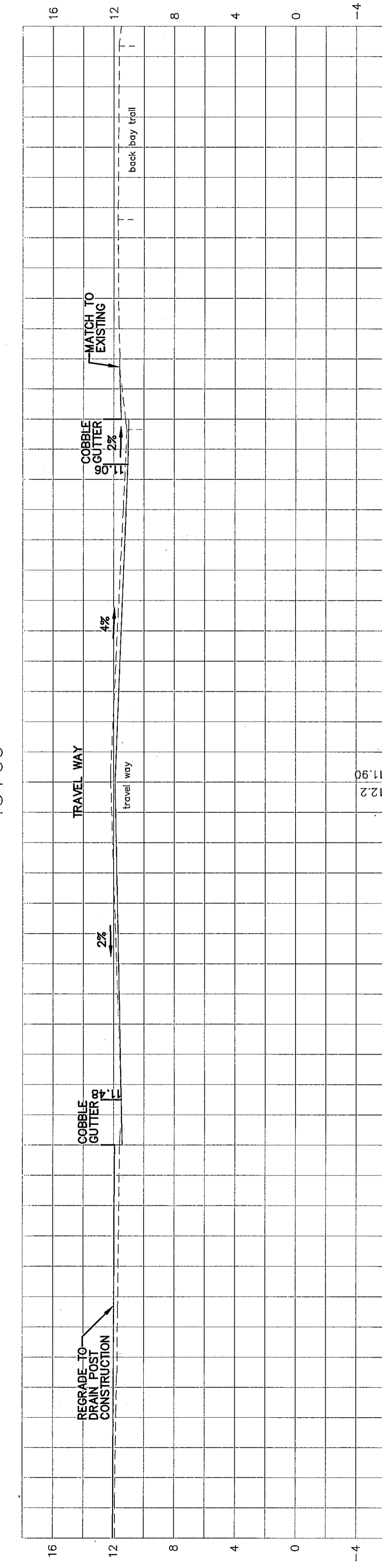
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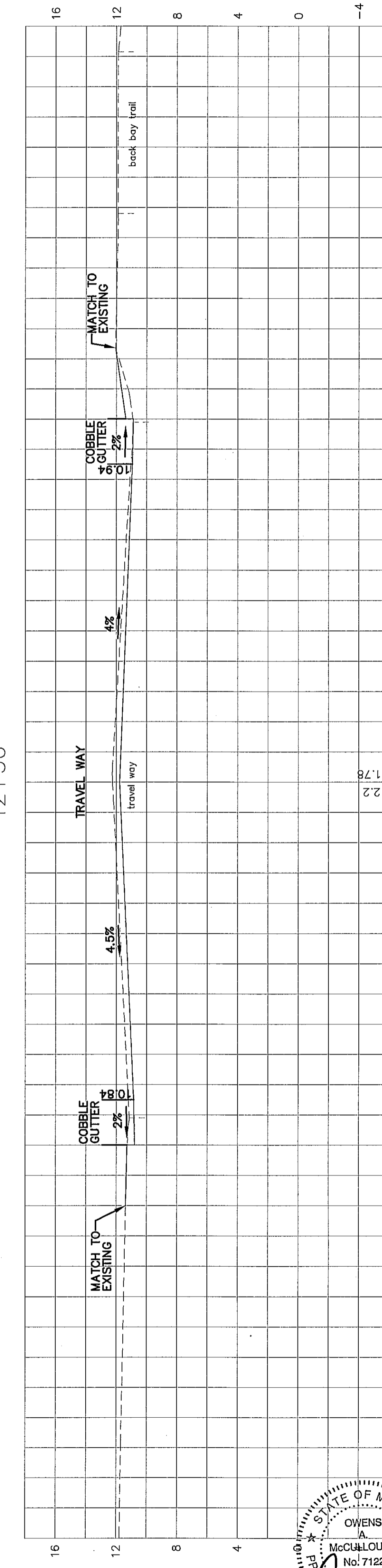
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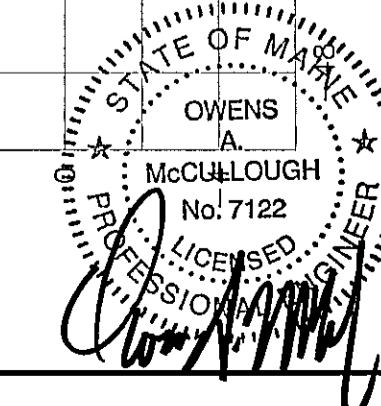
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12+50

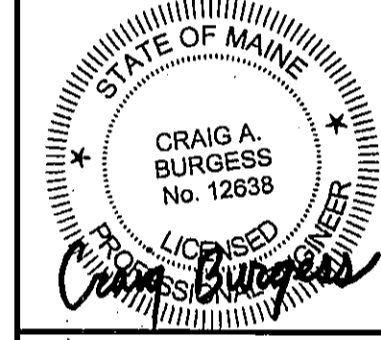


NOTE:
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CITY OF PORTLAND, MAINE
 PUBLIC SERVICES DEPARTMENT
 ENGINEERING DIVISION

BAXTER BOULEVARD
 NORTH STORAGE CONDUIT
 CROSS SECTIONS
 STATIONS 12+50 TO 14+50



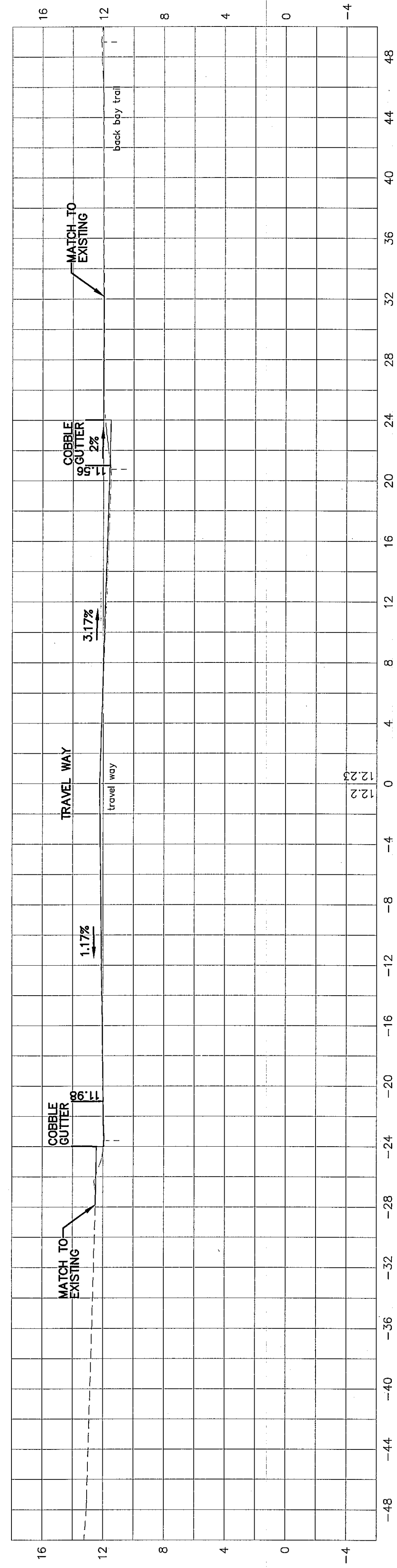
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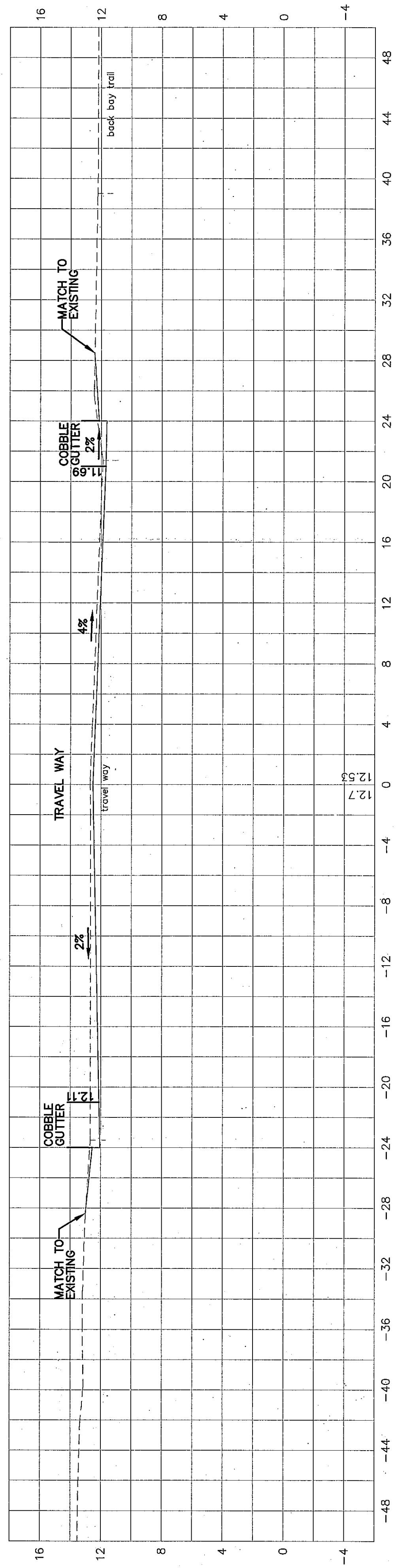
LDD PROJECT NAME:
 BAXTER BOULEVARD
 NORTH STORAGE CONDUIT
 DRAWING NAME:
 09006CS1
 FIELD BOOK USED:
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SHEET #
 20 OF 54
 PLAN NUMBER

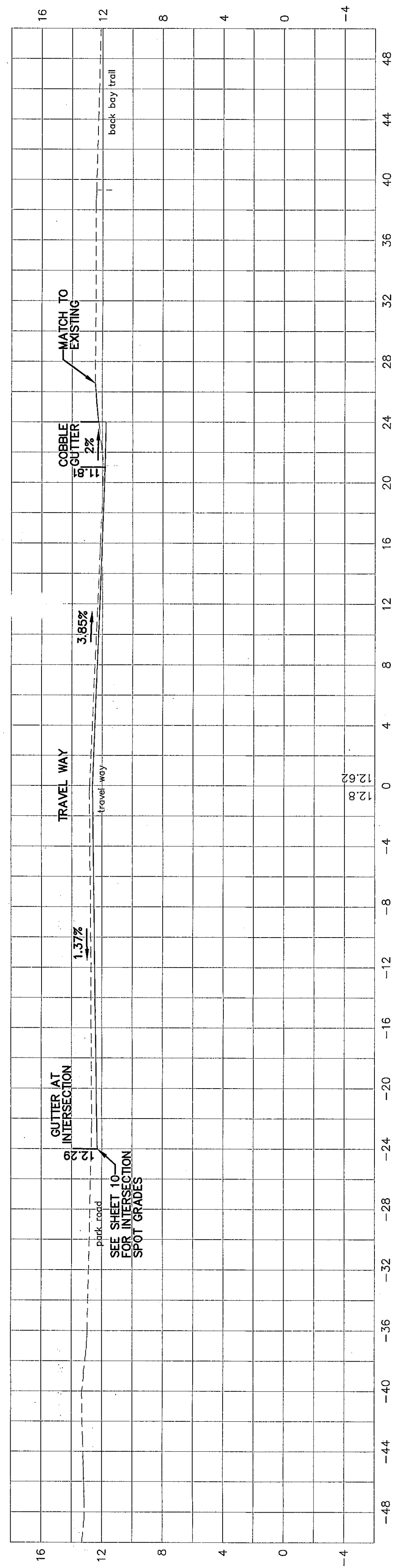
17+00



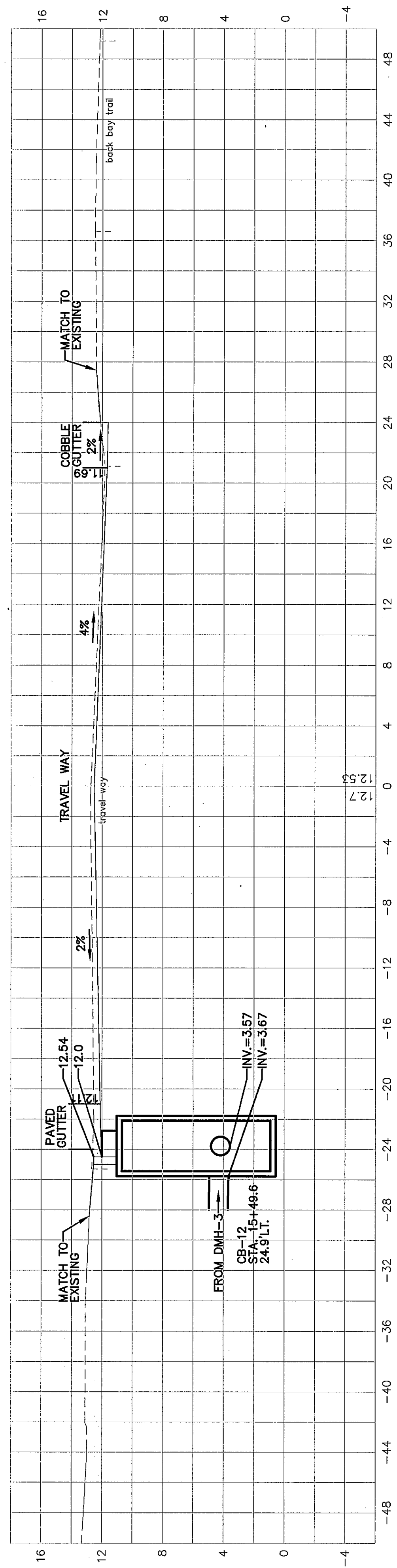
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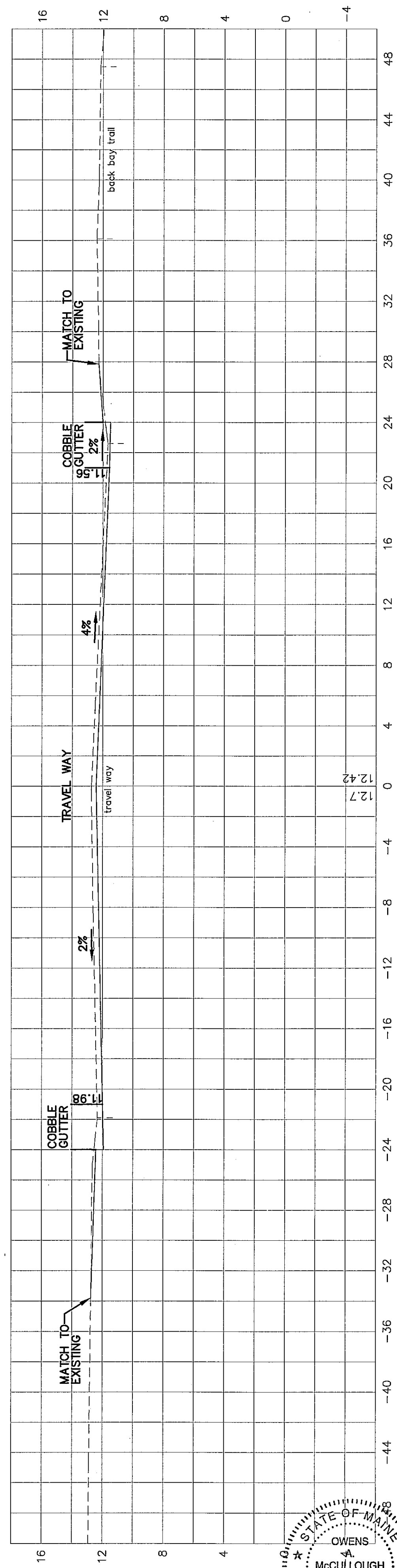
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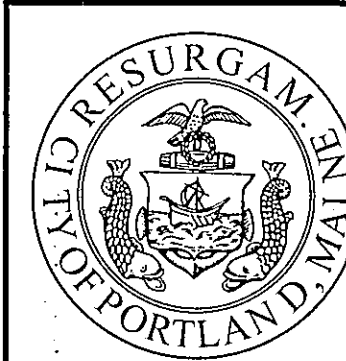
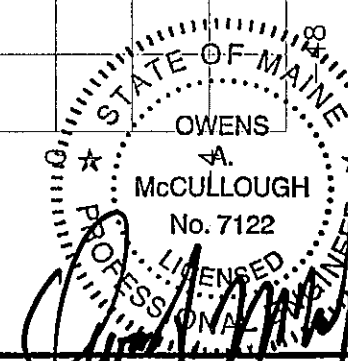
15+50



15+00



NOTE:
 ONLY MAJOR SUBSURFACE UTILITIES ARE SHOWN IN THE CROSS-SECTIONS EVERY 200 FEET. SEE PLAN AND PROFILE DRAWINGS FOR ADDITIONAL UTILITY INFORMATION.



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 PLAN NUMBER

CITY OF PORTLAND, MAINE
 PUBLIC SERVICES DEPARTMENT
 ENGINEERING DIVISION

BAXTER BOULEVARD
 NORTH STORAGE CONDUIT
 CROSS SECTIONS
 STATIONS 15+00 TO 15+50

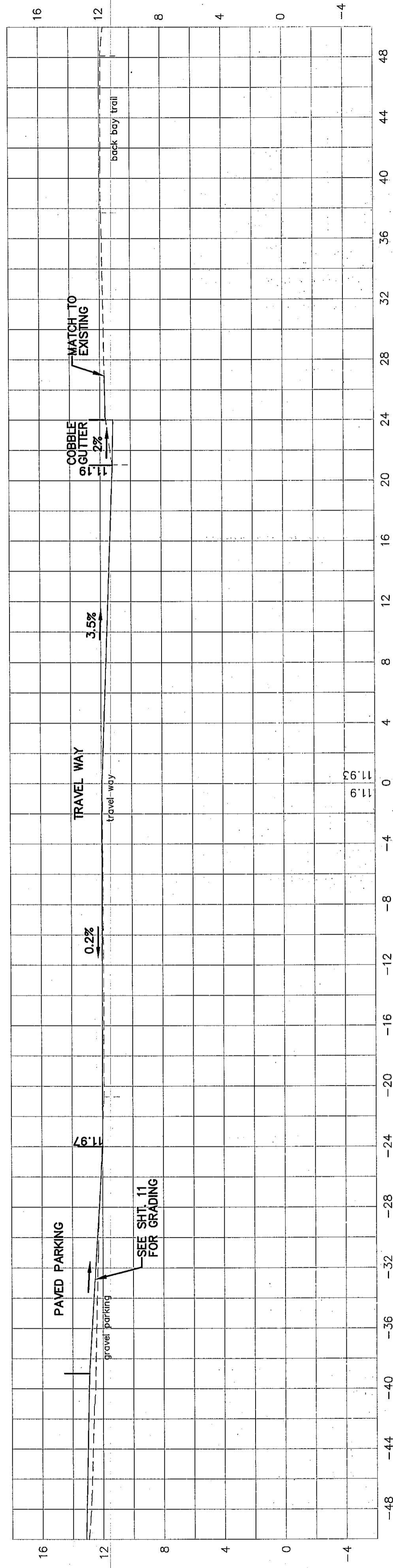
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 DATE: 11-16-2012

REFERENCES:
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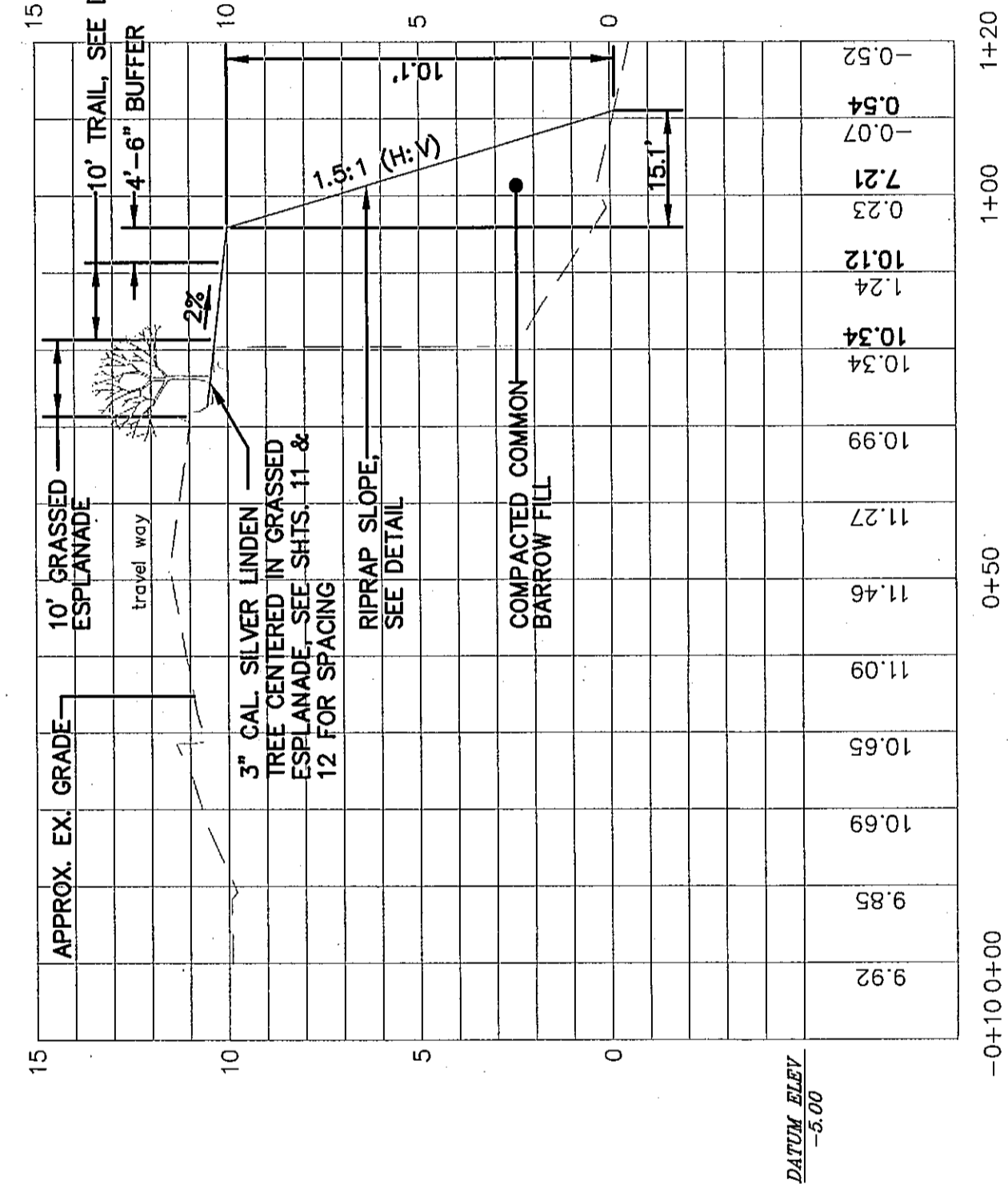
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 BAXTER BOULEVARD
 NORTH STORAGE CONDUIT
 DRAWING NAME:
 090065x1
 FIELD BOOK USED:
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NOTE:
ONLY MAJOR SUBSURFACE UTILITIES ARE SHOWN IN THE CROSS-SECTIONS EVERY 200 FEET. SEE PLAN AND PROFILE DRAWINGS FOR ADDITIONAL UTILITY INFORMATION.

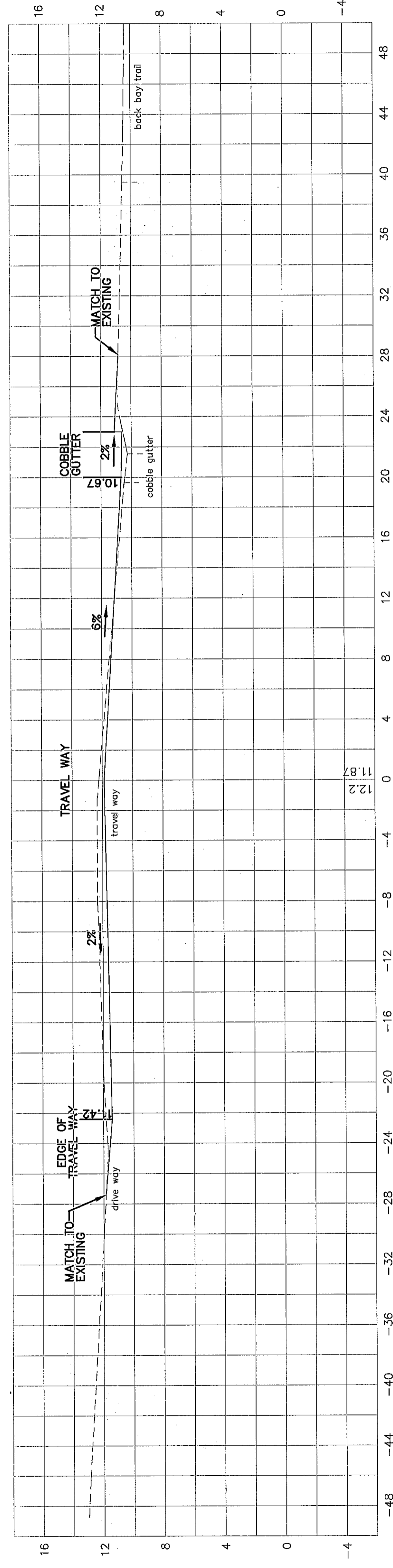
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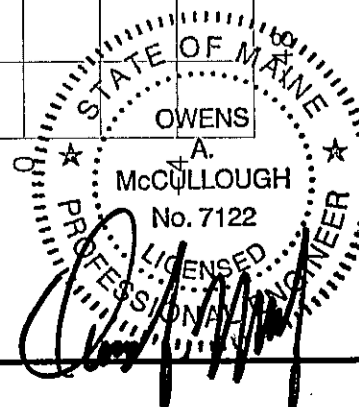
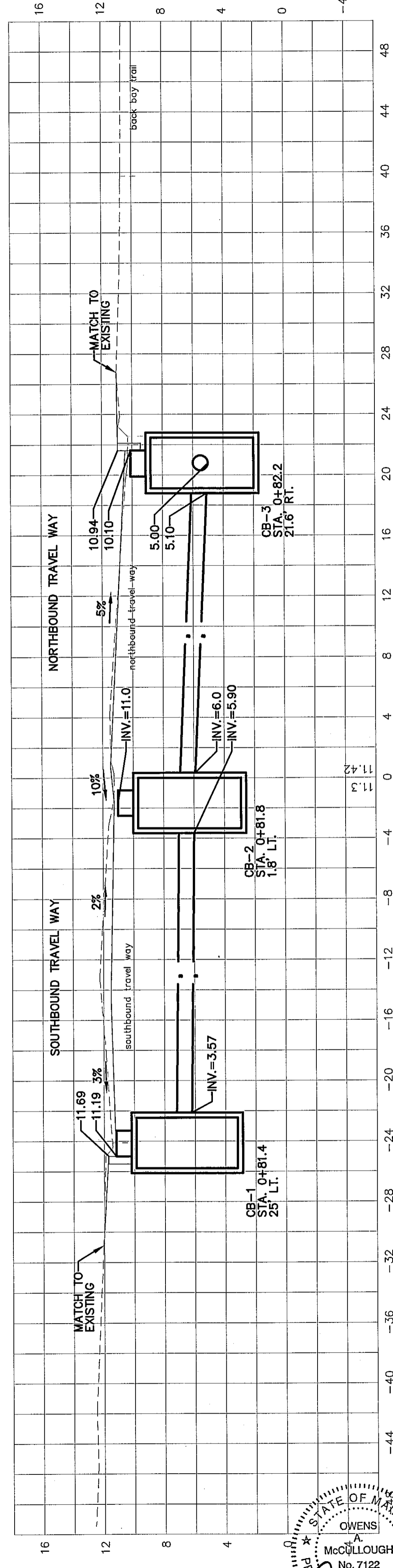
TYP. TRAIL IMPROVEMENT AREA CROSS SECTION
SCALE: HORIZ. 1"=20', VERT. 1"=4'
20+00



1+30

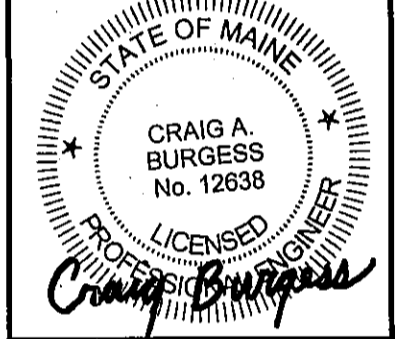


0+80



LDG PROJECT NAME:
BAXTER BOULEVARD
NORTH STORAGE CONDUIT
DRAWING NAME:
09006XSI
FIELD BOOK USED:
N/A

DESIGNED BY:
DAM/CAS
DRAWN BY:
BFE
CHECKED BY:
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SCALE:
1"=5'
DATE:
11-16-2012

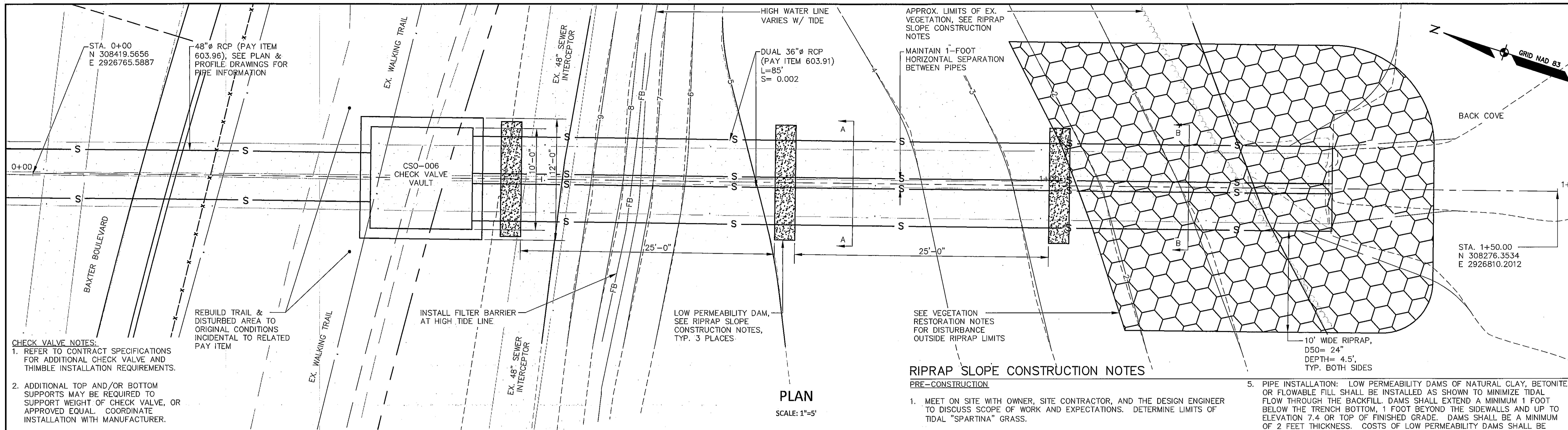


BAXTER BOULEVARD
NORTH STORAGE CONDUIT
CROSS SECTIONS
STATIONS 0+80, 1+30 AND 20+00

CITY OF PORTLAND, MAINE
PUBLIC SERVICES DEPARTMENT
ENGINEERING DIVISION



SHEET #
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PLAN NUMBER

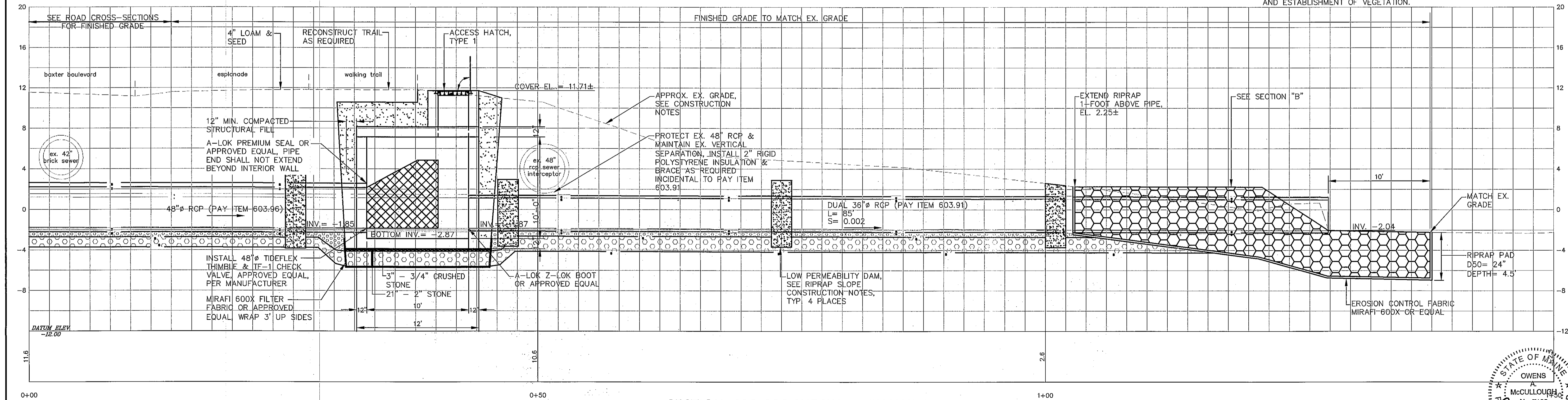
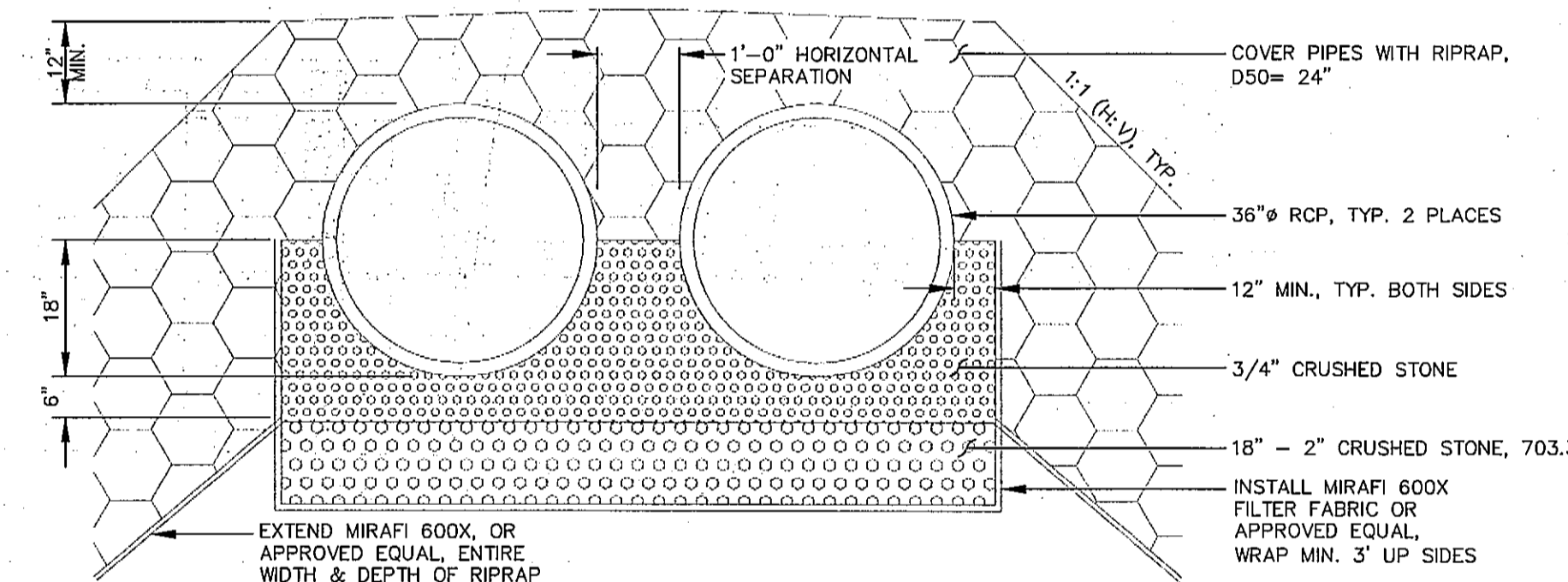
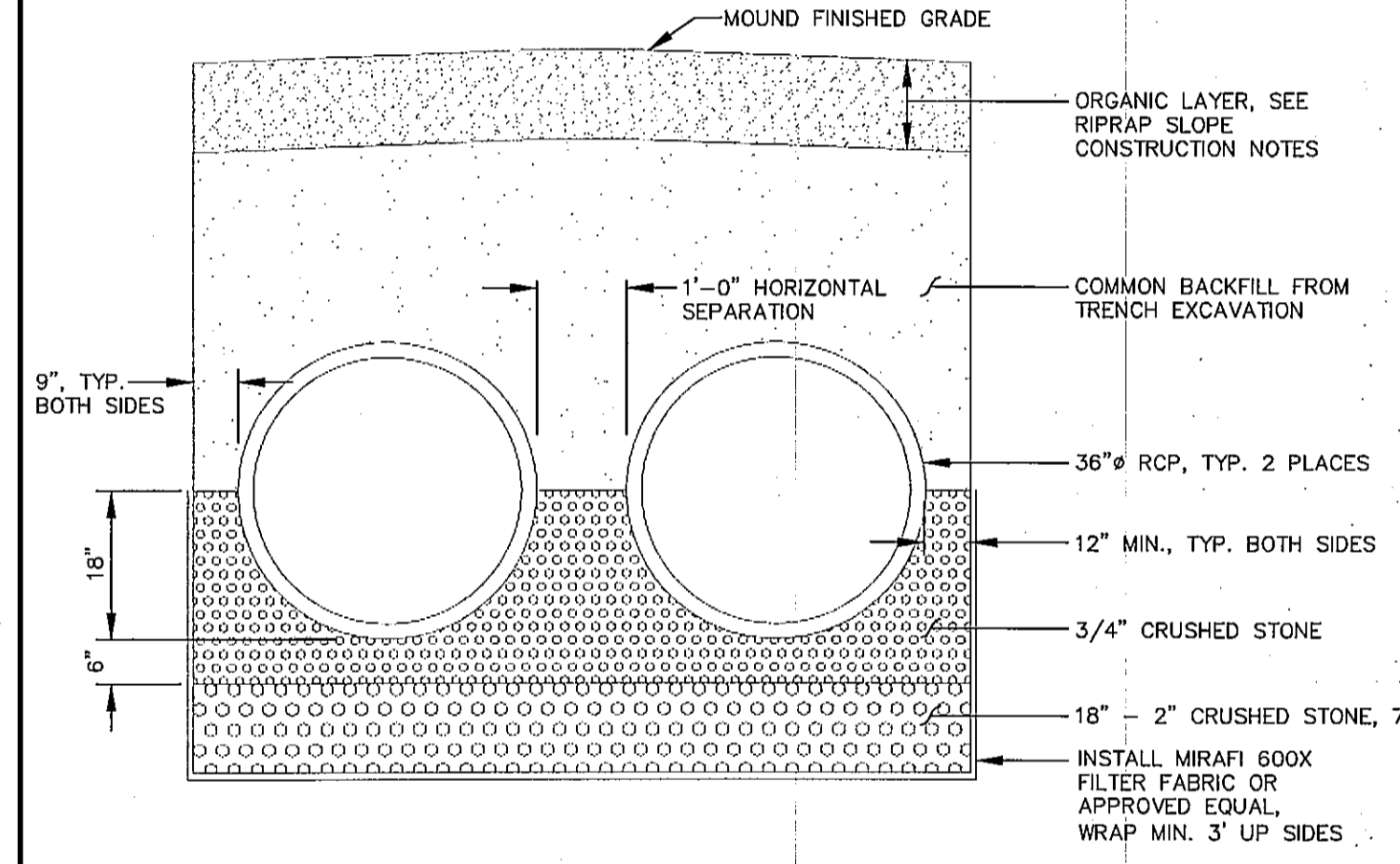


CHECK VALVE NOTES:

- REFER TO CONTRACT SPECIFICATIONS FOR ADDITIONAL CHECK VALVE AND THIMBLE INSTALLATION REQUIREMENTS.
- ADDITIONAL TOP AND/OR BOTTOM SUPPORTS MAY BE REQUIRED TO SUPPORT WEIGHT OF CHECK VALVE, OR APPROVED EQUAL COORDINATE INSTALLATION WITH MANUFACTURER.

RIPRAP SLOPE CONSTRUCTION NOTES

- PRE-CONSTRUCTION**
- MEET ON SITE WITH OWNER, SITE CONTRACTOR, AND THE DESIGN ENGINEER TO DISCUSS SCOPE OF WORK AND EXPECTATIONS. DETERMINE LIMITS OF TIDAL "SPARTINA" GRASS.
 - CONTRACTOR SHALL HAVE ALL MATERIALS APPROVED BY THE DESIGN ENGINEER PRIOR TO INSTALLATION.
 - SEE LAYOUT & DEMOLITION PLAN FOR LIMITS OF EXISTING PIPE REMOVAL.
- CONSTRUCTION PHASE**
- STABILIZE DISTURBED AREAS IN ACCORDANCE WITH THE EROSION AND SEDIMENT CONTROL BMP MANUAL, LATEST EDITION. SEE THE EROSION & SEDIMENT CONTROL NOTES AND PLAN FOR ADDITIONAL REQUIREMENTS. PROTECT NEARBY TREES, WHICH ARE PROPOSED TO REMAIN, TO THE EXTENT PRACTICAL, PROTECT THE ROOT ZONE OF THESE TREES.
 - THE CONTRACTOR SHALL CONSIDER THE TIDE SCHEDULE CAREFULLY; AND SHALL SCHEDULE WORK TO AVOID INTERRUPTIONS OF DAYLIGHT WORKING HOURS WITH HIGH TIDES. WORKING WITHIN TIDAL WATERS IS NOT PERMITTED.
 - THE CONTRACTOR SHALL ONLY WORK IN AREAS THAT CAN BE COMPLETED DURING EACH CONSTRUCTION DAY. NO AREAS SHALL BE EXCAVATED BY THE CONTRACTOR AND LEFT EXPOSED, AS THESE AREAS WILL BE SUBJECT TO EROSION FROM TIDAL SURGES OR STORM EVENTS.
 - WITHIN VEGETATIVE AREA PROPOSED TO BE DISTURBED, CAREFULLY REMOVE THE TOP ORGANIC LAYER (12"±) BELOW ELEVATION DETERMINED AT PRECONSTRUCTION MEETING. REMOVE USING METHOD THAT WILL KEEP THE VEGETATION SYSTEM INTACT. STOCKPILE THE ORGANIC LAYER IN A MANNER SO THAT MATERIAL CAN BE REUSED. REMOVE ONLY ENOUGH VEGETATION NEEDED TO INSTALL THE TIDE GATE VAULT AND SEWER PIPE IN ACCORDANCE WITH THE CROSS-SECTION. ORGANIC LAYER REMOVAL, STORAGE AND PLACEMENT SHALL BE INCIDENTAL TO THE RELATED PIPE PAY ITEM.
 - PIPE INSTALLATION: LOW PERMEABILITY DAMS OF NATURAL CLAY, BETONITE OR FLOWABLE FILL SHALL BE INSTALLED AS SHOWN TO MINIMIZE TIDAL FLOW THROUGH THE BACKFILL. DAMS SHALL EXTEND A MINIMUM 1 FOOT BELOW THE TRENCH BOTTOM, 1 FOOT BEYOND THE SIDEWALLS AND UP TO ELEVATION 7.4 OR TOP OF FINISHED GRADE. DAMS SHALL BE A MINIMUM OF 2 FEET THICKNESS. COSTS OF LOW PERMEABILITY DAMS SHALL BE INCIDENTAL TO THE CONTRACT.
 - INSTALL RIPRAP SLOPE IN ACCORDANCE WITH THE DETAILS. ONCE THE CHECK VALVE VAULT, SEWER PIPE, STORAGE CONDUIT AND RIPRAP SLOPE ARE COMPLETELY INSTALLED, THE CONTRACTOR SHALL GRADE THE DISTURBED AREAS UNIFORMLY TO MATCH EXISTING TOPOGRAPHY (U.N.O.) AND THE NEW RIPRAP EDGE.
 - PLACE EXISTING ORGANIC MATERIAL IN DISTURBED VEGETATIVE AREAS BELOW ELEVATION 10, WORKING FROM THE OUTFALL TO THE VAULT. DISTURBED VEGETATIVE AREAS ABOVE ELEVATION 10 SHALL HAVE LOAM AND SEED. ORGANIC LAYER REMOVAL, STORAGE AND PLACEMENT SHALL BE INCIDENTAL TO THE RELATED PIPE PAY ITEM.
 - INSPECT THE SITE EVERY TWO WEEKS FOR SIGNS OF EROSION AND ESTABLISHMENT OF VEGETATION. REPAIR ERODED AREAS AND REPLANT VEGETATION TO ESTABLISH 75% VEGETATION CATCH, AS REQUIRED.
 - IN AREAS REQUIRING REPLANTING, INSTALL NORTH AMERICAN GREEN C125BN EROSION CONTROL FABRIC OR APPROVED EQUAL IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS (PAY ITEM 613.319).
 - USING RAZOR BLADE, CAREFULLY CUT HOLES 1 FOOT O.C. AND IN ROWS SPACED 1 FOOT APART. LOOSELY OFFSET HOLES BETWEEN ROWS FOR APPROXIMATELY 6-8 HOLES PER SQUARE YARD. PLANT CORD GRASS SPARTINA PATENS (SALT MEADOW GRASS) AND SPARTINA ALTERNIFLORA (SMOOTH CORDGRASS) PLUGS IN ALTERNATING FASHION. COSTS ASSOCIATED WITH CUTTING FABRIC AND PLANTING GRASS PLUGS WILL BE PAID THROUGH THE BID ITEM 615.072.
 - CONTINUE TO INSPECT THE SITE EVERY TWO WEEKS FOR SIGNS OF EROSION AND ESTABLISHMENT OF VEGETATION.



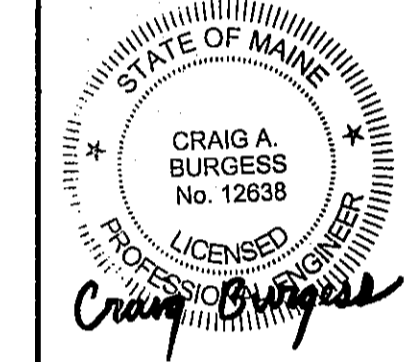
SECTION: CSO-006 CHECK VALVE VAULT

SCALE: HORIZ. 1"=5'
VERT. 1"=5'

LDD PROJECT NAME:
BAXTER BOULEVARD
NORTH STORAGE CONDUIT
DRAWING NAME:
09006AS1
FIELD BOOK USED:
N/A

REFERENCES:
09006as1.dwg, TAB: xsec. 9.

DESIGNED BY:	CHK'D BY:	DATE:
DRAWN BY:	APP'D BY:	11-16-2012
BREF/CAB:	CHEK'D BY:	
CAM:	SCALE:	
AS NOTED		

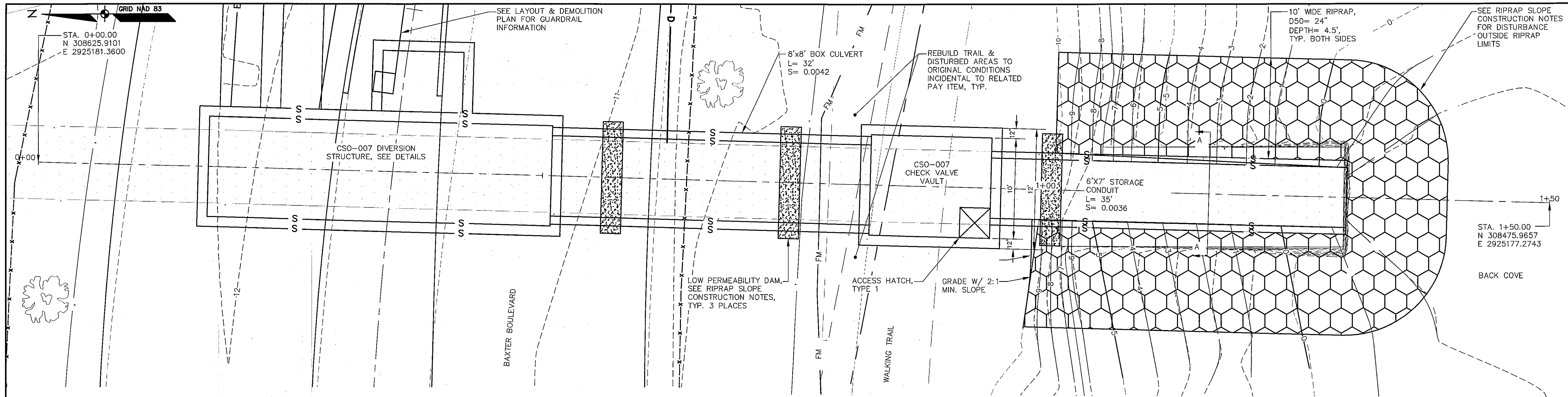


**BAXTER BOULEVARD
NORTH STORAGE CONDUIT
CROSS SECTIONS**

CITY OF PORTLAND, MAINE
PUBLIC SERVICES DEPARTMENT
ENGINEERING DIVISION



SHEET #
23 OF 54
PLAN NUMBER



PLAN

SCALE: 1"=5'

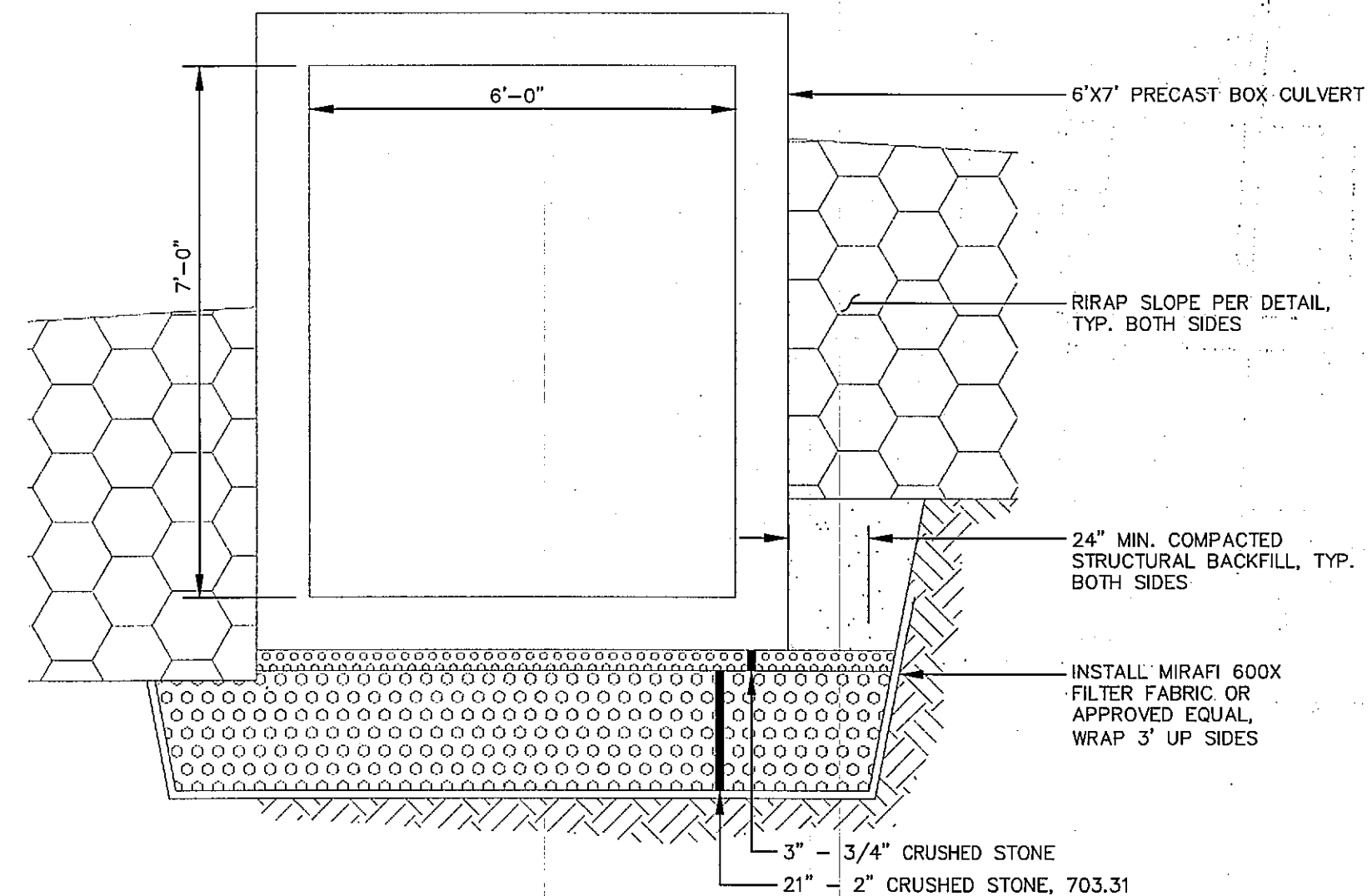
RIPRAP SLOPE CONSTRUCTION NOTES

PRE-CONSTRUCTION

1. MEET ON SITE WITH OWNER, SITE CONTRACTOR, AND THE DESIGN ENGINEER TO DISCUSS SCOPE OF WORK AND EXPECTATIONS. DETERMINE LIMITS OF TIDAL "SPARTINA" GRASS.
2. CONTRACTOR SHALL HAVE ALL MATERIALS APPROVED BY THE DESIGN ENGINEER PRIOR TO INSTALLATION.
3. SEE LAYOUT & DEMOLITION PLAN FOR LIMITS OF EXISTING PIPE REMOVAL.

CONSTRUCTION PHASE

1. STABILIZE DISTURBED AREAS IN ACCORDANCE WITH THE EROSION AND SEDIMENT CONTROL BMP MANUAL, LATEST EDITION. SEE THE EROSION & SEDIMENT CONTROL NOTES AND PLAN FOR ADDITIONAL REQUIREMENTS. PROTECT NEARBY TREES, WHICH ARE PROPOSED TO REMAIN. TO THE EXTENT PRACTICAL, PROTECT THE ROOT ZONE OF THESE TREES.
2. THE CONTRACTOR SHALL CONSIDER THE TIDE SCHEDULE CAREFULLY; AND SHALL SCHEDULE WORK TO AVOID INTERRUPTIONS OF DAYLIGHT WORKING HOURS WITH HIGH TIDES. WORKING WITHIN TIDAL WATERS IS NOT PERMITTED.
3. THE CONTRACTOR SHALL ONLY WORK IN AREAS THAT CAN BE COMPLETED DURING EACH CONSTRUCTION DAY. NO AREAS SHALL BE EXCAVATED BY THE CONTRACTOR AND LEFT EXPOSED, AS THESE AREAS WILL BE SUBJECT TO EROSION FROM TIDAL SURGES OR STORM EVENTS.
4. WITHIN VEGETATIVE AREA PROPOSED TO BE DISTURBED, CAREFULLY REMOVE THE TOP ORGANIC LAYER (12"±) BELOW ELEVATION DETERMINED AT PRECONSTRUCTION MEETING. REMOVE USING METHOD THAT WILL KEEP THE VEGETATION SYSTEM INTACT. STOCKPILE THE ORGANIC LAYER IN A MANNER SO THAT MATERIAL CAN BE REUSED. REMOVE ONLY ENOUGH VEGETATION NEEDED TO INSTALL THE TIDE GATE VAULT AND SEWER PIPE IN ACCORDANCE WITH THE CROSS-SECTION. ORGANIC LAYER REMOVAL, STORAGE AND PLACEMENT SHALL BE INCIDENTAL TO THE RELATED PIPE PAY ITEM.
5. PIPE INSTALLATION: LOW PERMEABILITY DAMS OF NATURAL CLAY, BETONITE OR FLOWABLE FILL SHALL BE INSTALLED AS SHOWN TO MINIMIZE TIDAL FLOW THROUGH THE BACKFILL. DAMS SHALL EXTEND A MINIMUM 1 FOOT BELOW THE TRENCH BOTTOM, 1 FOOT BEYOND THE SIDEWALLS AND UP TO ELEVATION 7.4 OR TOP OF FINISHED GRADE. DAMS SHALL BE A MINIMUM OF 2 FEET THICKNESS. COSTS OF LOW PERMEABILITY DAMS SHALL BE INCIDENTAL TO THE CONTRACT.
6. INSTALL RIPRAP SLOPE IN ACCORDANCE WITH THE DETAILS. ONCE THE CHECK VALVE VAULT, SEWER PIPE, STORAGE CONDUIT AND RIPRAP SLOPE ARE COMPLETELY INSTALLED, THE CONTRACTOR SHALL GRADE THE DISTURBED AREAS UNIFORMLY TO MATCH EXISTING TOPOGRAPHY (U.N.O.) AND THE NEW RIPRAP EDGE.
7. PLACE EXISTING ORGANIC MATERIAL IN DISTURBED VEGETATIVE AREAS BELOW ELEVATION 10, WORKING FROM THE OUTFALL TO THE VAULT. DISTURBED VEGETATIVE AREAS ABOVE ELEVATION 10 SHALL HAVE LOAM AND SEED. ORGANIC LAYER REMOVAL, STORAGE AND PLACEMENT SHALL BE INCIDENTAL TO THE RELATED PIPE PAY ITEM.
8. INSPECT THE SITE EVERY TWO WEEKS FOR SIGNS OF EROSION AND ESTABLISHMENT OF VEGETATION. REPAIR ERODED AREAS AND REPLANT VEGETATION TO ESTABLISH 75% VEGETATION CATCH, AS REQUIRED.
9. IN AREAS REQUIRING REPLANTING, INSTALL NORTH AMERICAN GREEN C125BN EROSION CONTROL FABRIC OR APPROVED EQUAL IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS (PAY ITEM 613.319).
10. USING RAZOR BLADE, CAREFULLY CUT HOLES 1 FOOT O.C. AND IN ROWS SPACED 1 FOOT APART. LOOSELY OFFSET HOLES BETWEEN ROWS FOR APPROXIMATELY 6-8 HOLES PER SQUARE YARD. PLANT CORD GRASS SPARTINA PATENS (SALT MEADOW GRASS) AND SPARTINA ALTERNIFLORA (SMOOTH CORDGRASS) PLUGS IN ALTERNATING FASHION. COSTS ASSOCIATED WITH CUTTING FABRIC AND PLANTING GRASS PLUGS WILL BE PAID THROUGH THE BID ITEM 615.072.
11. CONTINUE TO INSPECT THE SITE EVERY TWO WEEKS FOR SIGNS OF EROSION AND ESTABLISHMENT OF VEGETATION.



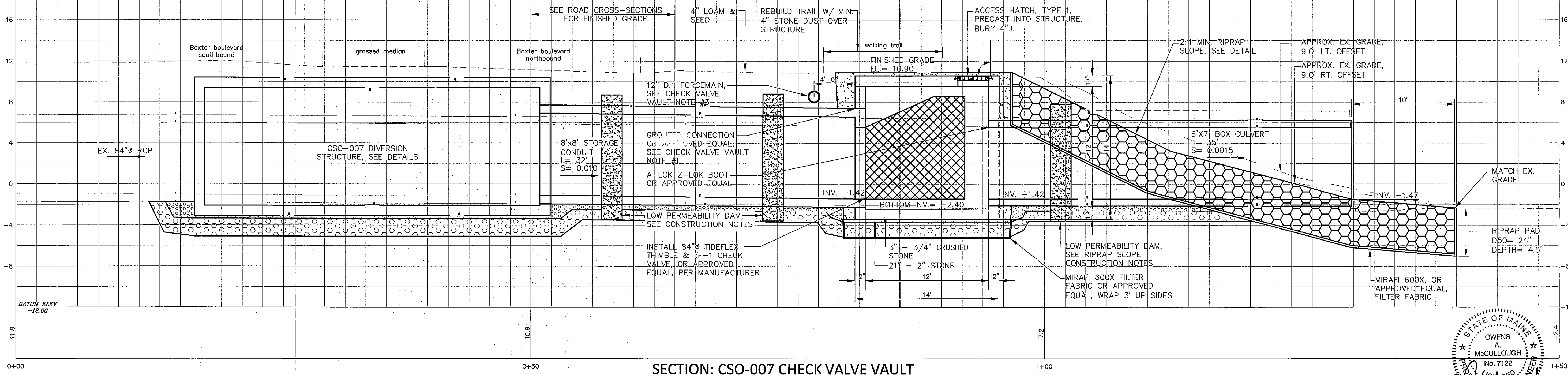
SECTION "A"

CHECK VALVE INSTALLATION NOTES:

1. REFER TO CONTRACT SPECIFICATIONS FOR ADDITIONAL CHECK VALVE AND THIMBLE INSTALLATION REQUIREMENTS.
2. ADDITIONAL TOP AND/OR BOTTOM SUPPORTS MAY BE REQUIRED TO SUPPORT WEIGHT OF CHECK VALVE, OR APPROVED EQUAL. COORDINATE INSTALLATION WITH MANUFACTURER.

CHECK VALVE VAULT NOTES:

1. EXTEND 8'x8' STORAGE CONDUIT END SECTION THROUGH CHECK VALVE VAULT STRUCTURE AND PROVIDE GROUTED WATERTIGHT CONNECTION. STORAGE CONDUIT END SECTION SHALL HAVE 84"Ø DIAMETER HOLE WITH EQUAL INVERT FOR CHECK VALVE CONNECTION.
2. PLACE 24" MINIMUM COMPACTED STRUCTURAL BACKFILL ON ALL SIDES OF VAULT.
3. MAINTAIN MINIMUM 6" VERTICAL CLEARANCE BETWEEN TOP OF 8'x8' STORAGE CONDUIT AND BOTTOM OF 12" D.I. FORCEMAIN. SEE SHEET 8 FOR FOREMAIN REALIGNMENT INFORMATION AND DETAIL.



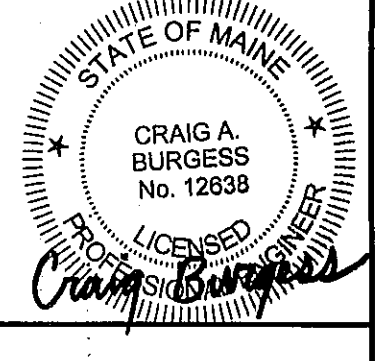
SECTION: CSO-007 CHECK VALVE VAULT

SCALE: HORIZ. 1"=5'
VERT. 1"=5'

LDD PROJECT NAME:
BAXTER BOULEVARD
NORTH STORAGE CONDUIT
DRAWING NAME:
0900651
FIELD BOOK USED:
N/A

REFERENCES:
0900651.dwg, TAB: xsec 10

DESIGNED BY:
DAM/CAB
DRAWN BY:
BFB/CAB
CHECKED BY:
DAM
SCALE:
AS NOTED
DATE:
11.05.2012

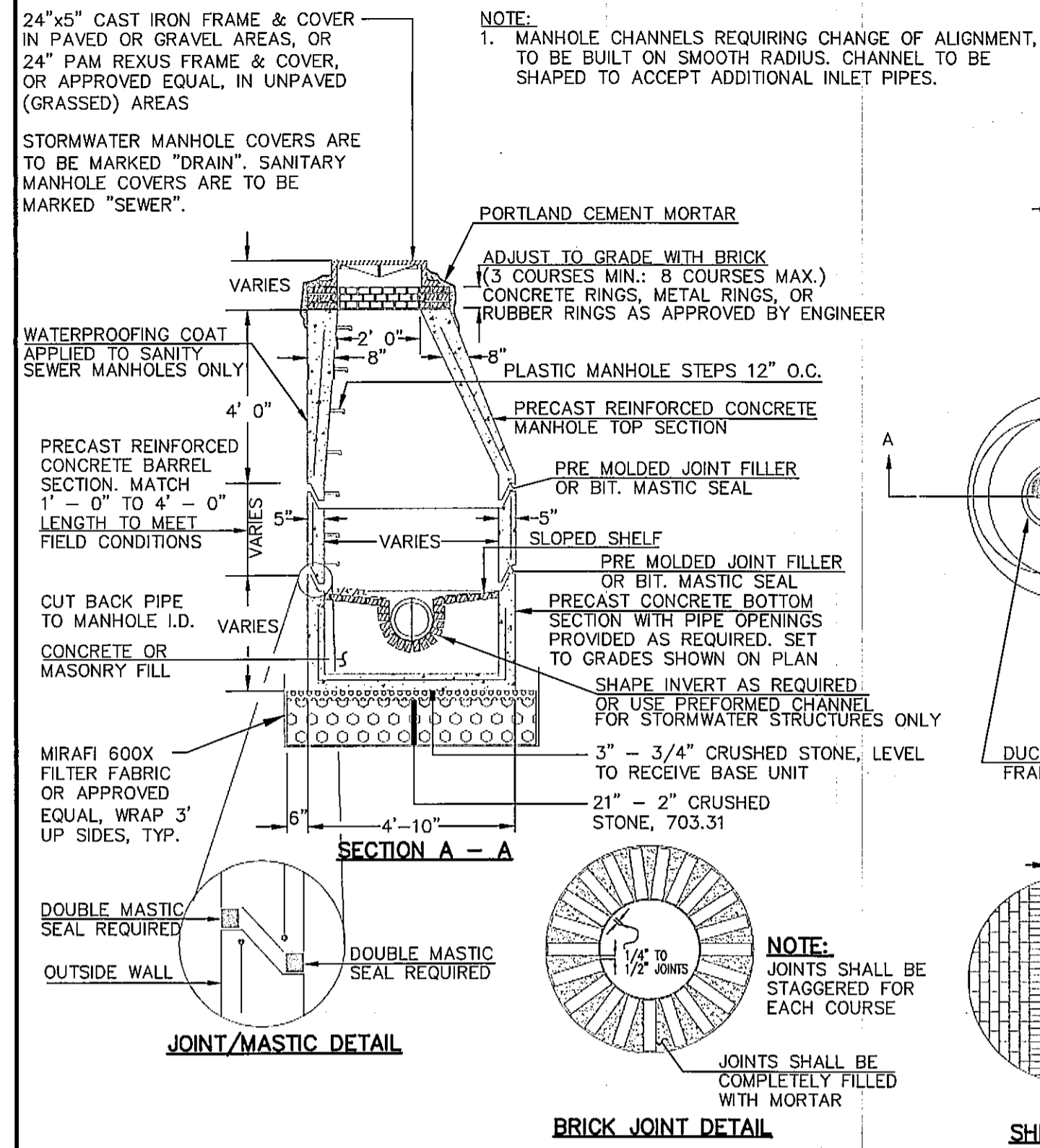


**BAXTER BOULEVARD
NORTH STORAGE CONDUIT
CROSS SECTIONS**

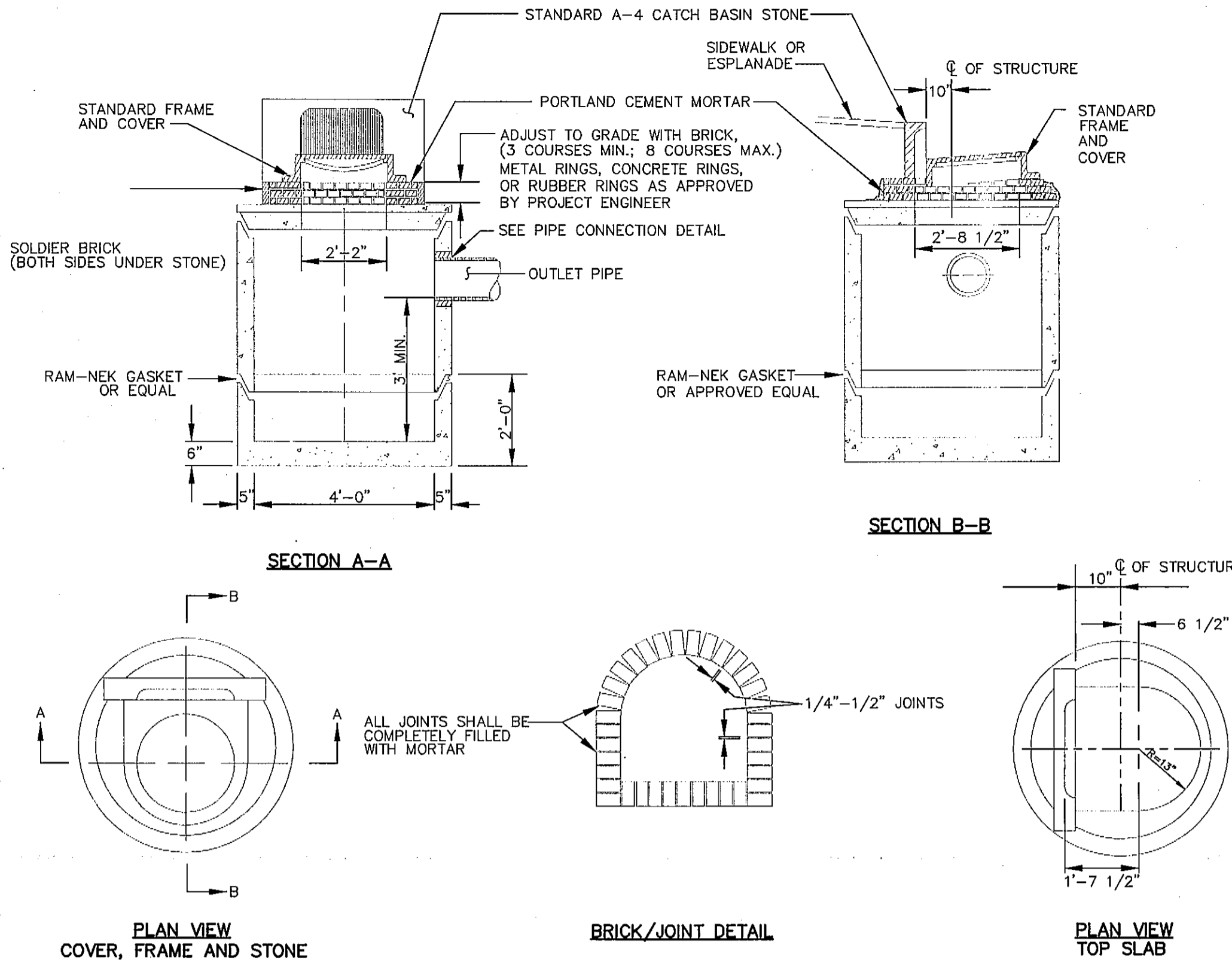
CITY OF PORTLAND, MAINE
PUBLIC SERVICES DEPARTMENT
ENGINEERING DIVISION



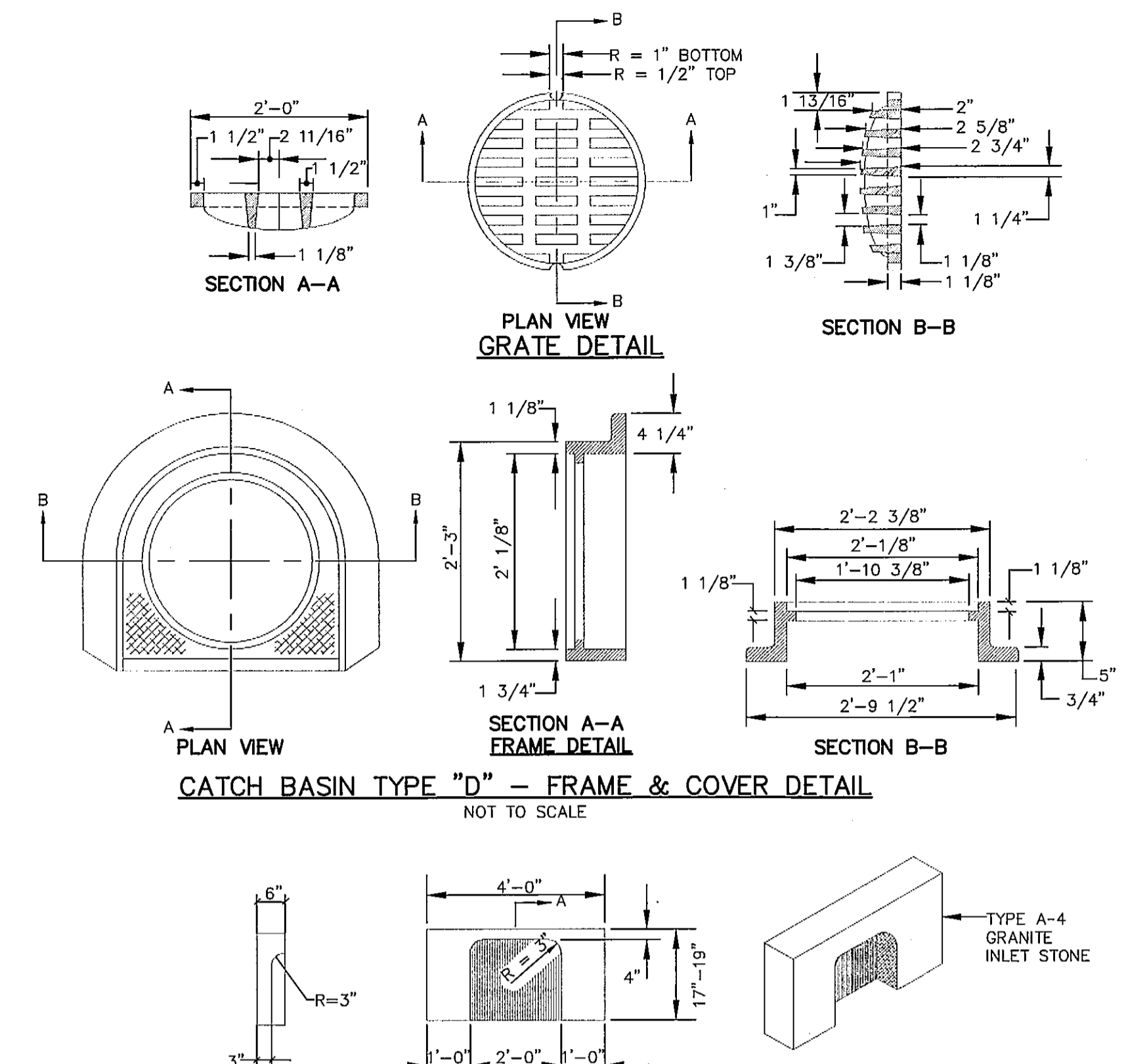
SHEET #
24 OF 54
PLAN NUMBER



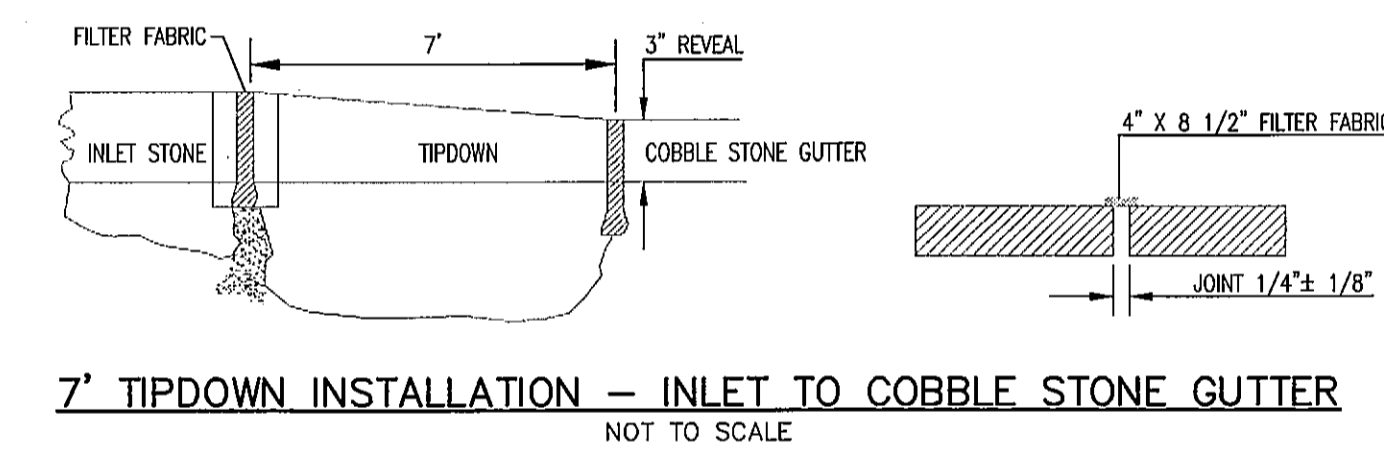
PRECAST CONCRETE MANHOLE TYPE "A"
NOT TO SCALE



PRECAST CONCRETE CATCH BASIN - TYPE E
NOT TO SCALE

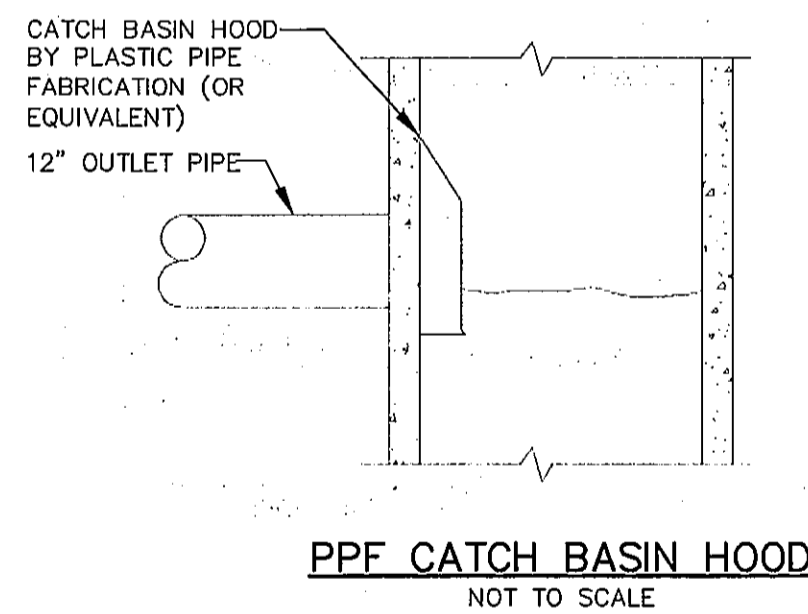
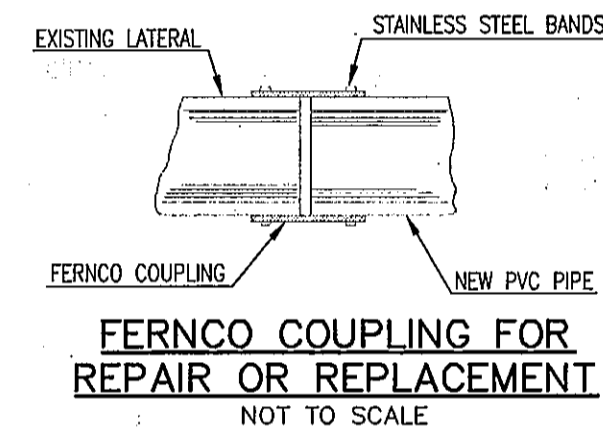


TYPE A-4 GRANITE CATCH BASIN INLET STONE DETAIL
NOT TO SCALE

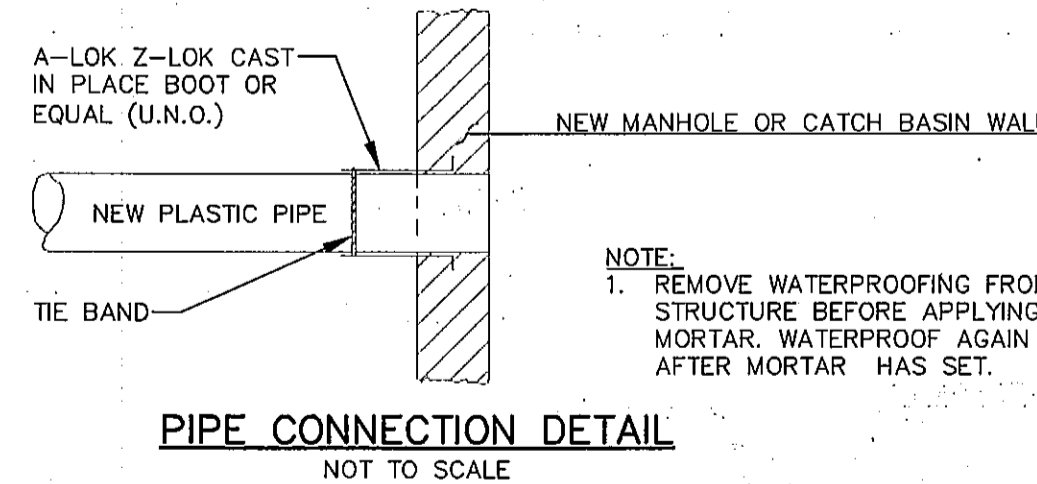
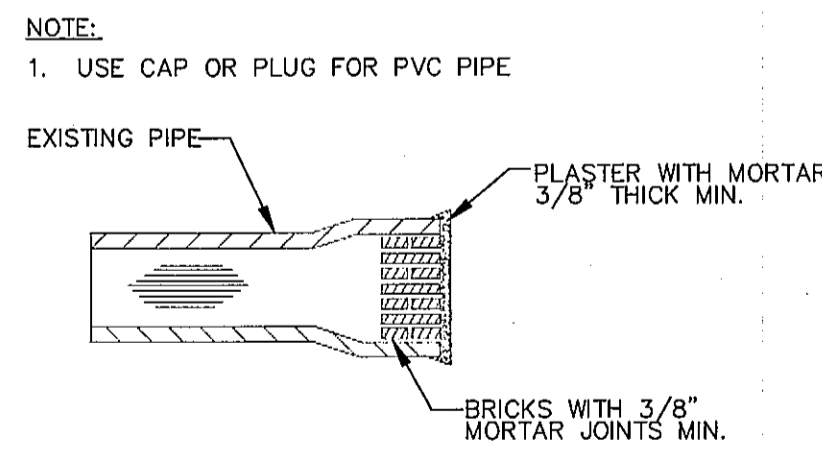
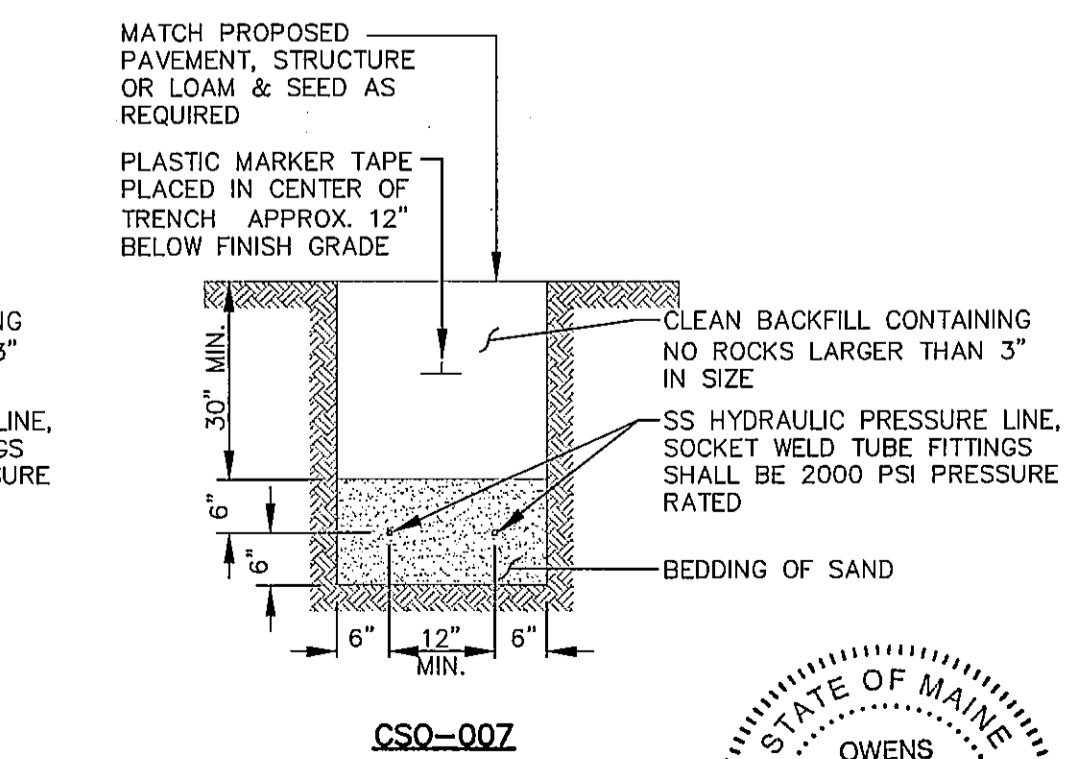
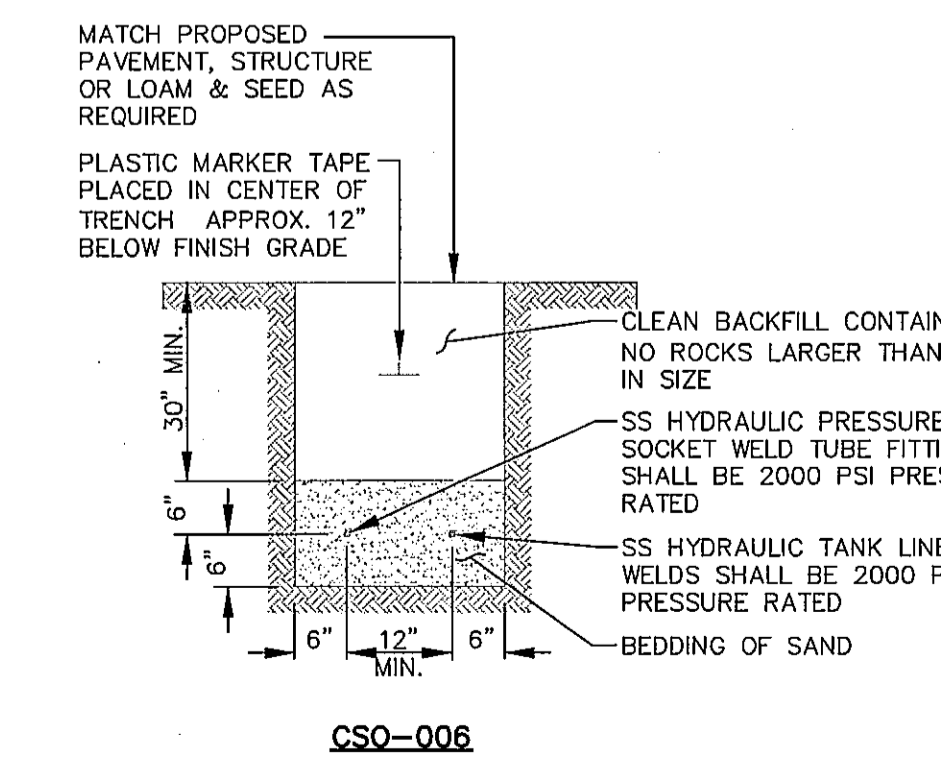
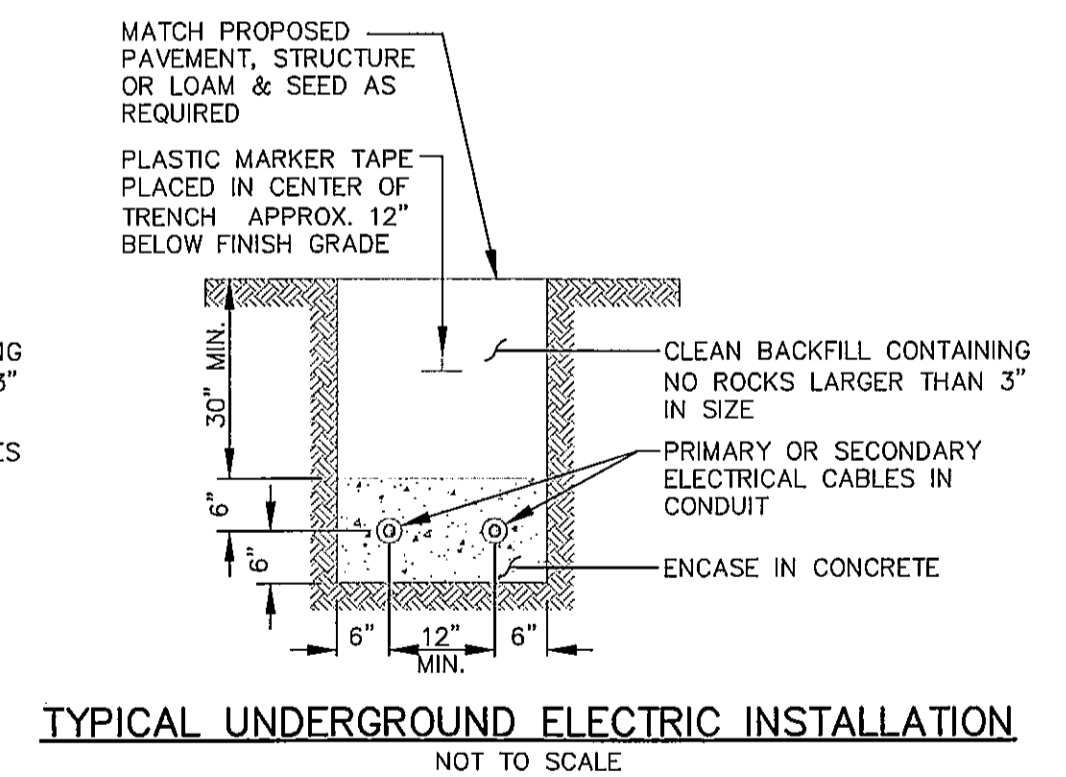
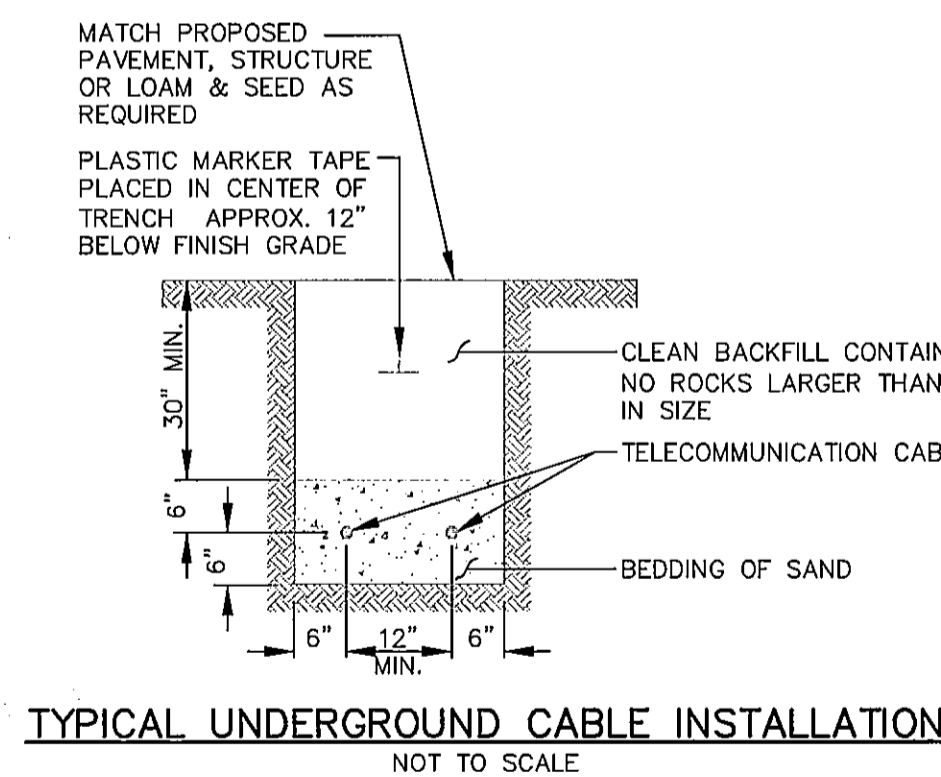
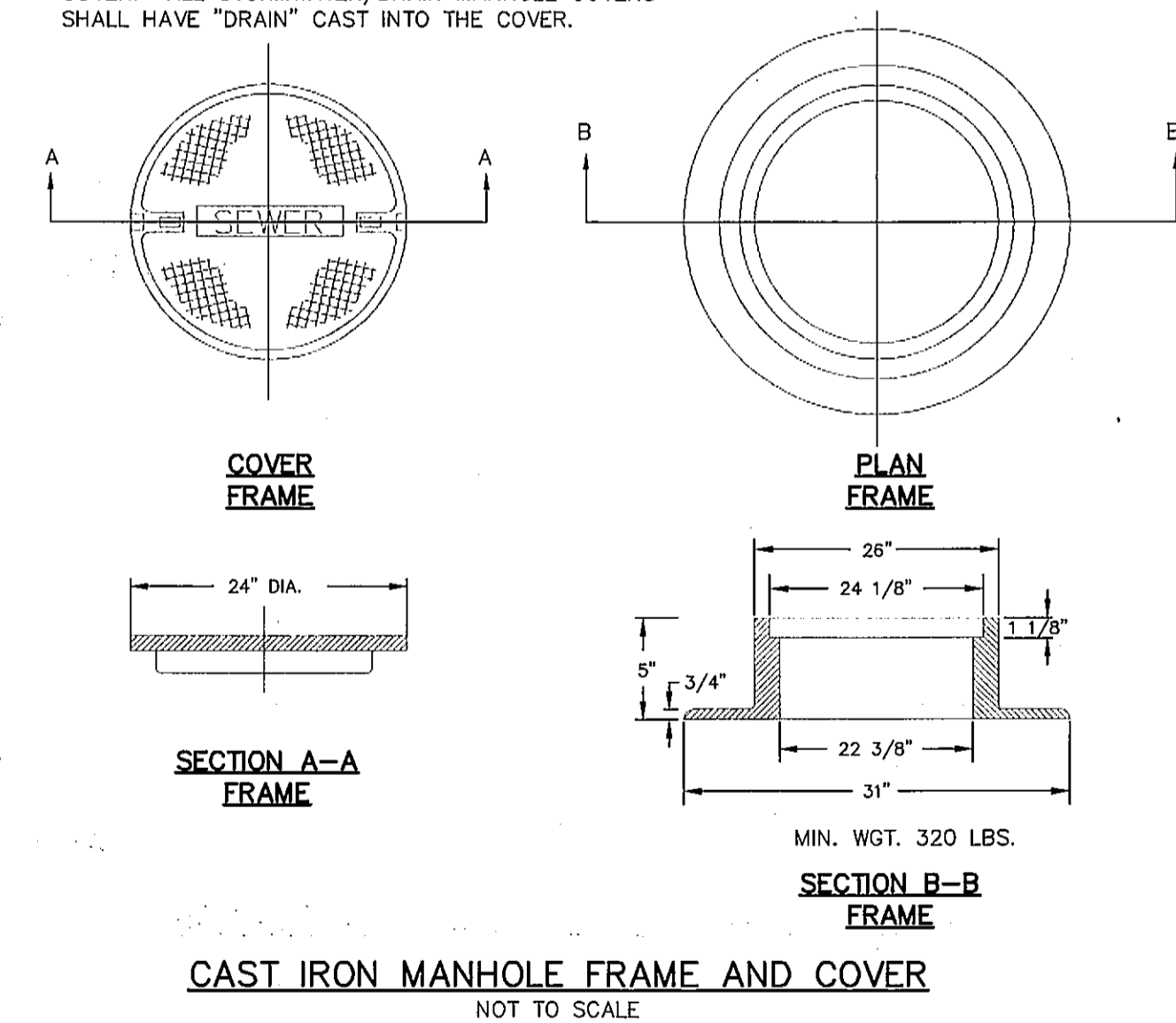


GENERAL NOTES FOR MANHOLES & CATCH BASINS

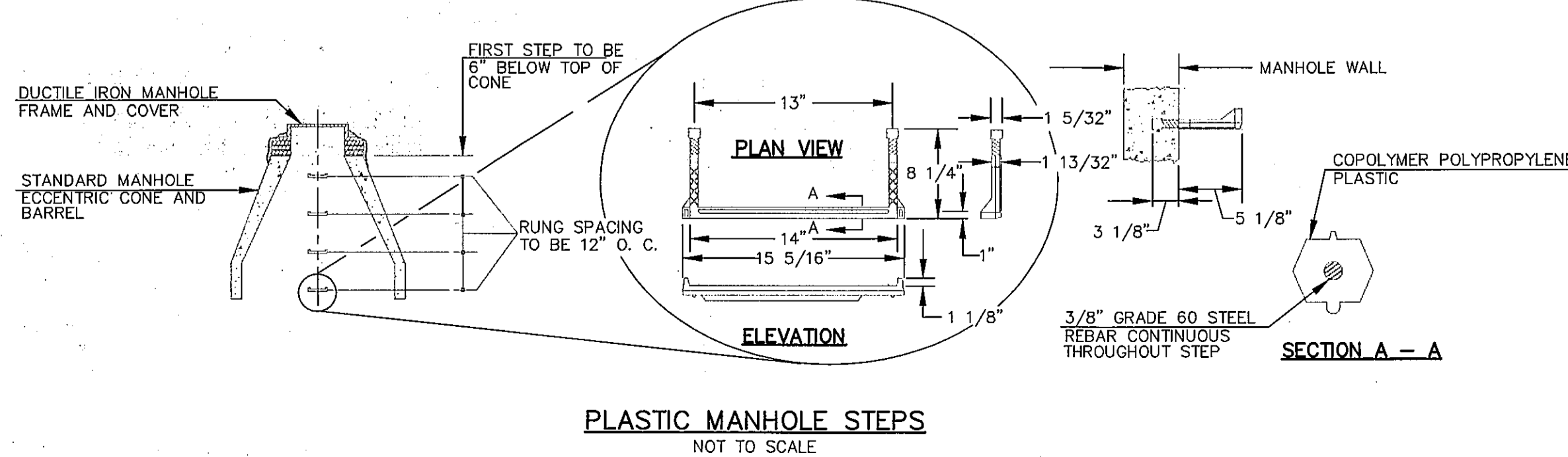
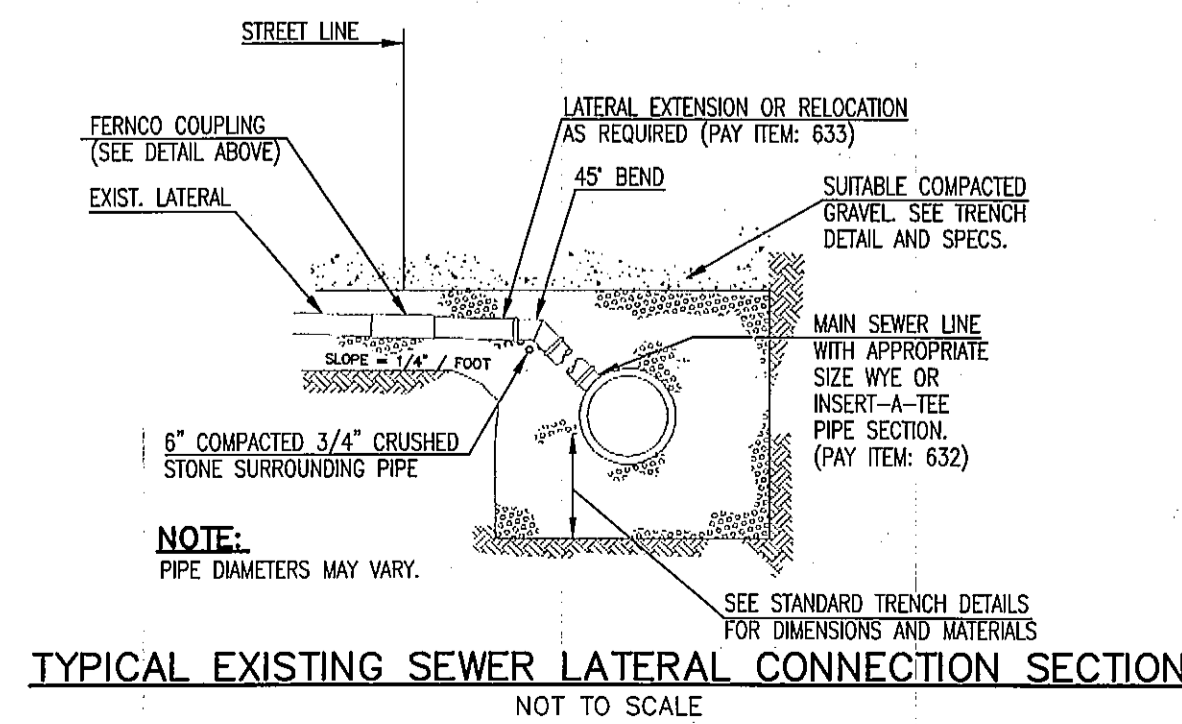
- ALL CONCRETE SHALL BE CLASS "A" AND HAVE A MINIMUM ULTIMATE COMPRESSIVE STRENGTH OF 4000 LBS. PER SQ. INCH AT THE END OF 28 DAYS, UNLESS OTHERWISE NOTED.
- PRECAST REINFORCED CONE BARREL MANUFACTURED PER ASTM SPEC. C-478-67
- SEWER BRICK SHALL CONFORM TO ASTM SPEC. DESIGNATE ON C-32-63, GRADE MA AND SA.
- SANITARY SEWER MANHOLES SHALL HAVE A BITUMINOUS WATERPROOFING 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.
- MANHOLES MAY BE CONSTRUCTED OF MASONRY, PRECAST REINFORCED CONCRETE, OR CAST IN PLACE.
- ALL PRECAST MANHOLES AND CATCH BASINS SHALL BE IDENTIFIED BY STATION AND OFFSET, PAINTED ON THE SIDE OF THE STRUCTURE BY THE MANUFACTURER.
- EXISTING FRAMES, AND COVERS SHALL BE SALVAGED BY THE CONTRACTOR, AND SHALL REMAIN THE PROPERTY OF THE CITY OF PORTLAND. CONTRACTOR SHALL DELIVER TO CITY STOCKYARD AT NO COST.
- EXISTING GRANITE COBBLE STONE AND PAVERS SHALL BE STOCKPILE BY THE CONTRACTOR, AND REUSED FOR CONSTRUCTION OF NEW COBBLE STONE GUTTER. GRANITE NOT USED SHALL REMAIN THE PROPERTY OF THE CITY OF PORTLAND.



- NOTE:**
1. ALL SANITARY AND STORMWATER/RAIN MANHOLE COVERS SHALL BE 24" x 5". ALL SANITARY MANHOLE COVERS AND SHALL HAVE "SEWER" CAST INTO THE COVER. ALL STORMWATER/RAIN MANHOLE COVERS SHALL HAVE "DRAIN" CAST INTO THE COVER.



- NOTE:**
1. REMOVE WATERPROOFING FROM STRUCTURE BEFORE APPLYING MORTAR. WATERPROOF AGAIN AFTER MORTAR HAS SET.

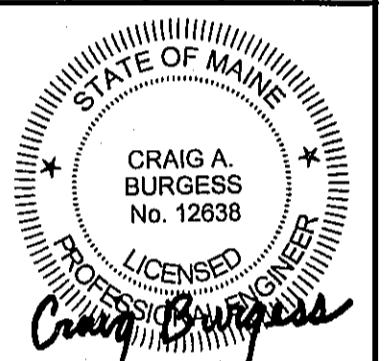


- NOTE:**
1. COORDINATE HYDRAULIC LINE SIZE WITH MANUFACTURER.

TYPICAL HYDRAULIC LINE INSTALLATION
NOT TO SCALE

LDD PROJECT NAME:
BAXTER BOULEVARD
NORTH STORAGE CONDUIT
DRAWING NAME:
09006D
FIELD BOOK USED:
N/A

DESIGNED BY:
DRAWN BY:
CHECKED BY:
SCALE:
DATE:

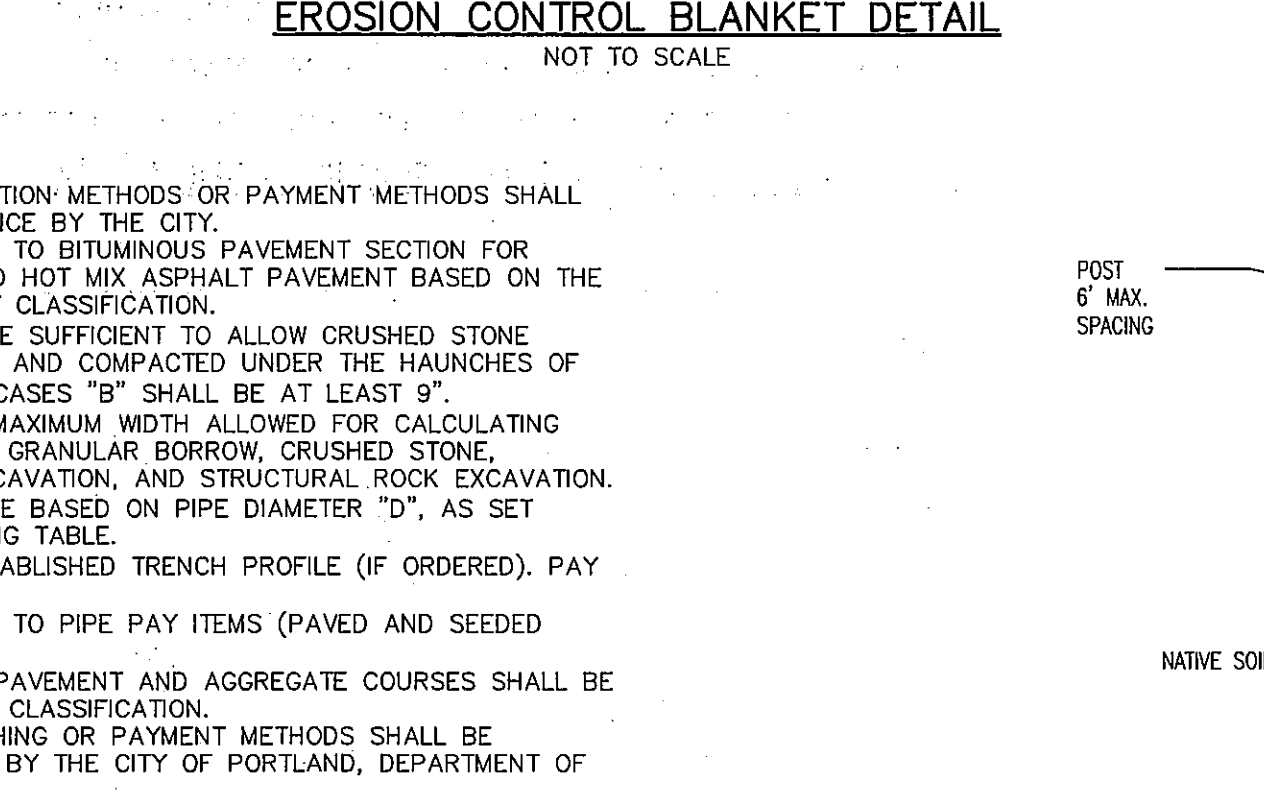
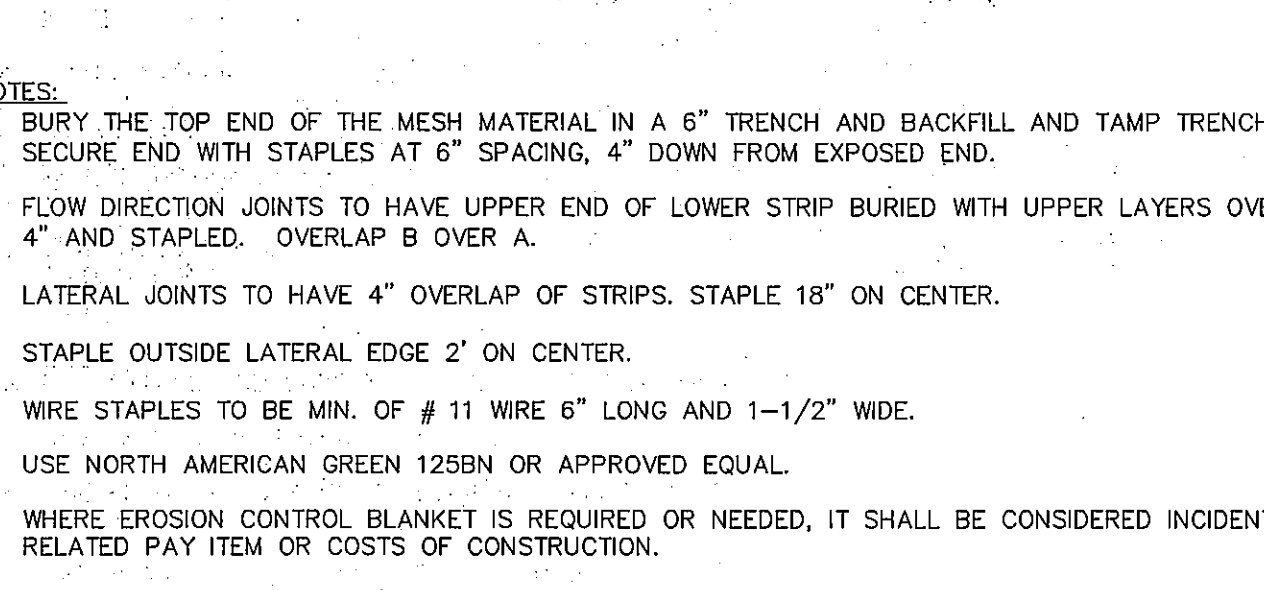
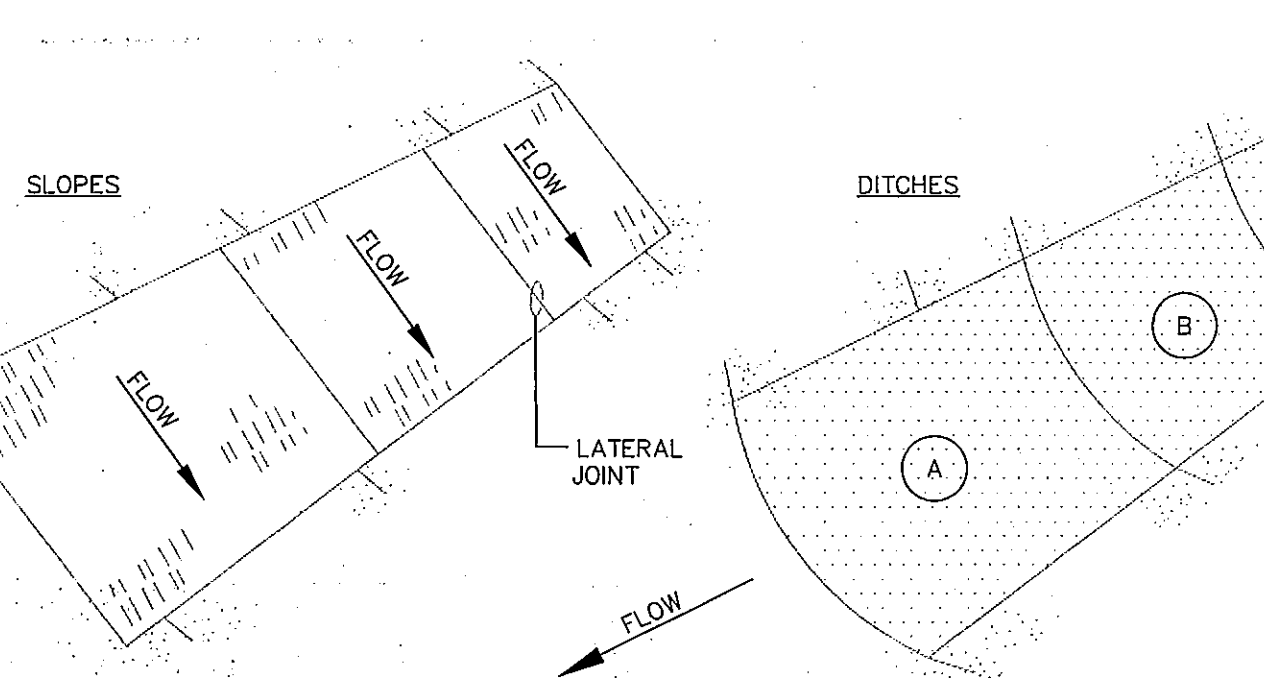
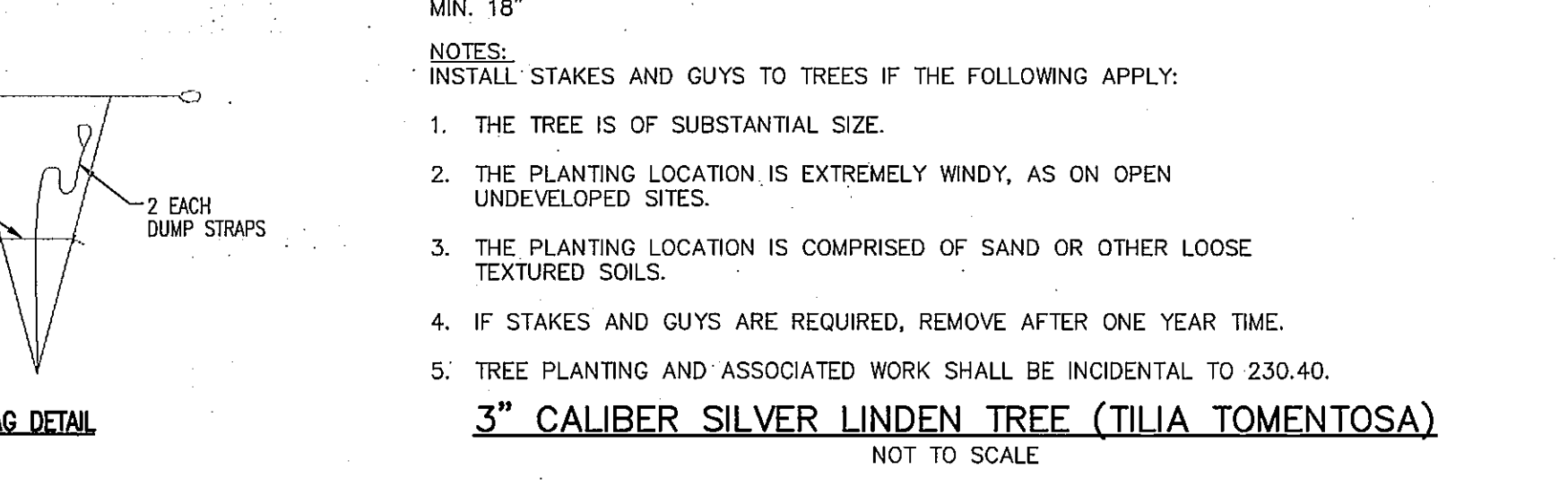
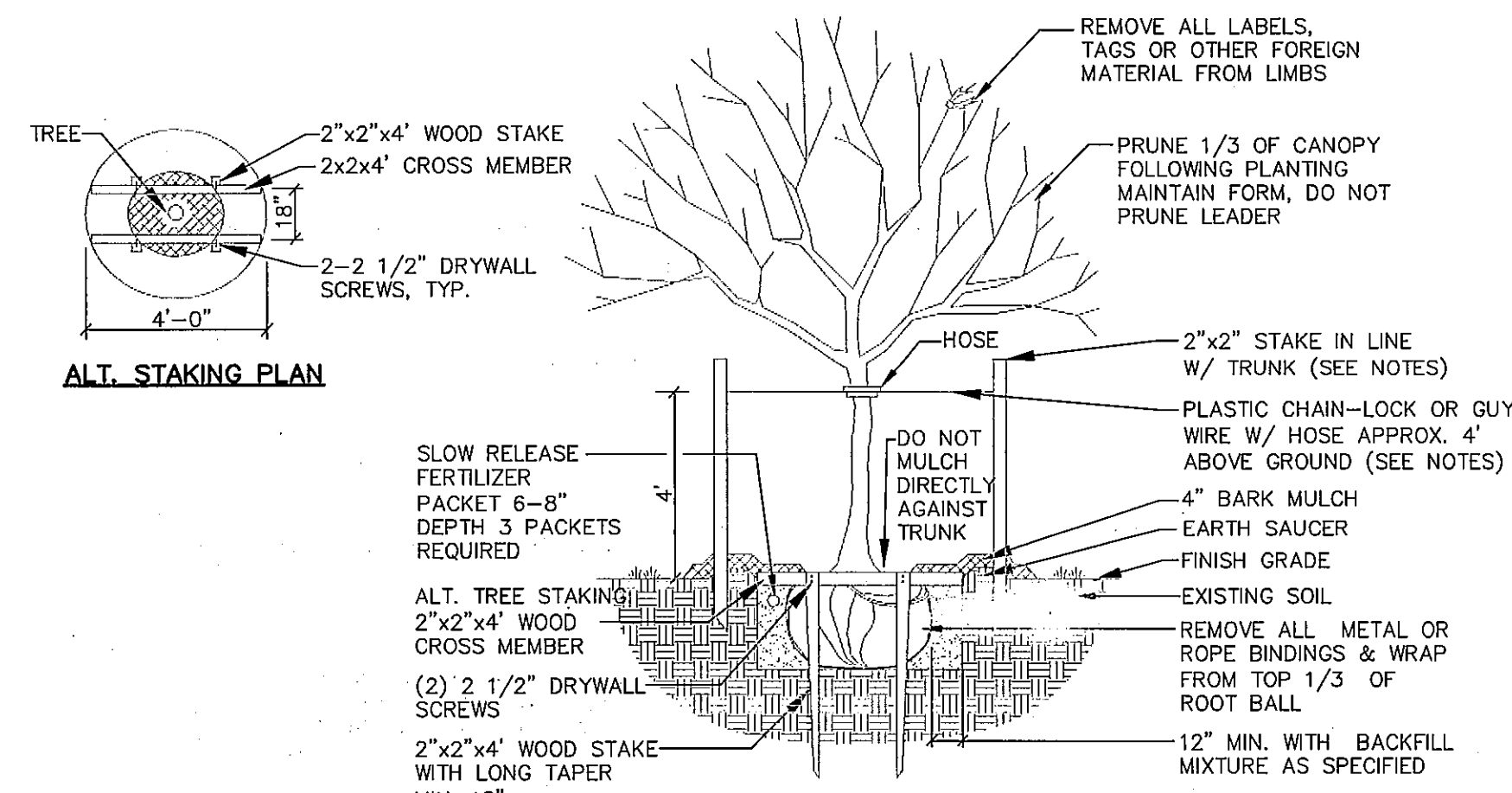


BAXTER BOULEVARD
NORTH STORAGE CONDUIT
STANDARD
CONSTRUCTION DETAILS

CITY OF PORTLAND, MAINE
PUBLIC SERVICES DEPARTMENT
ENGINEERING DIVISION



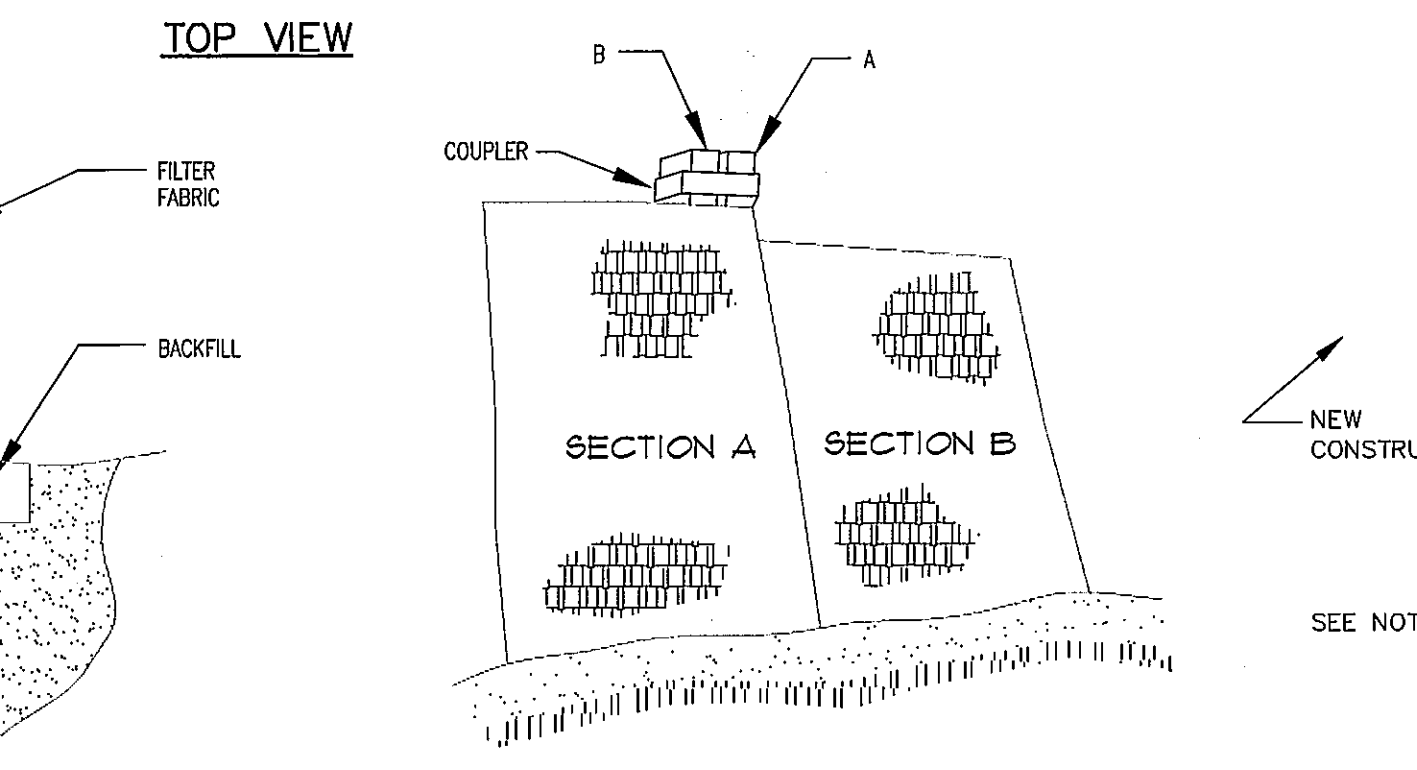
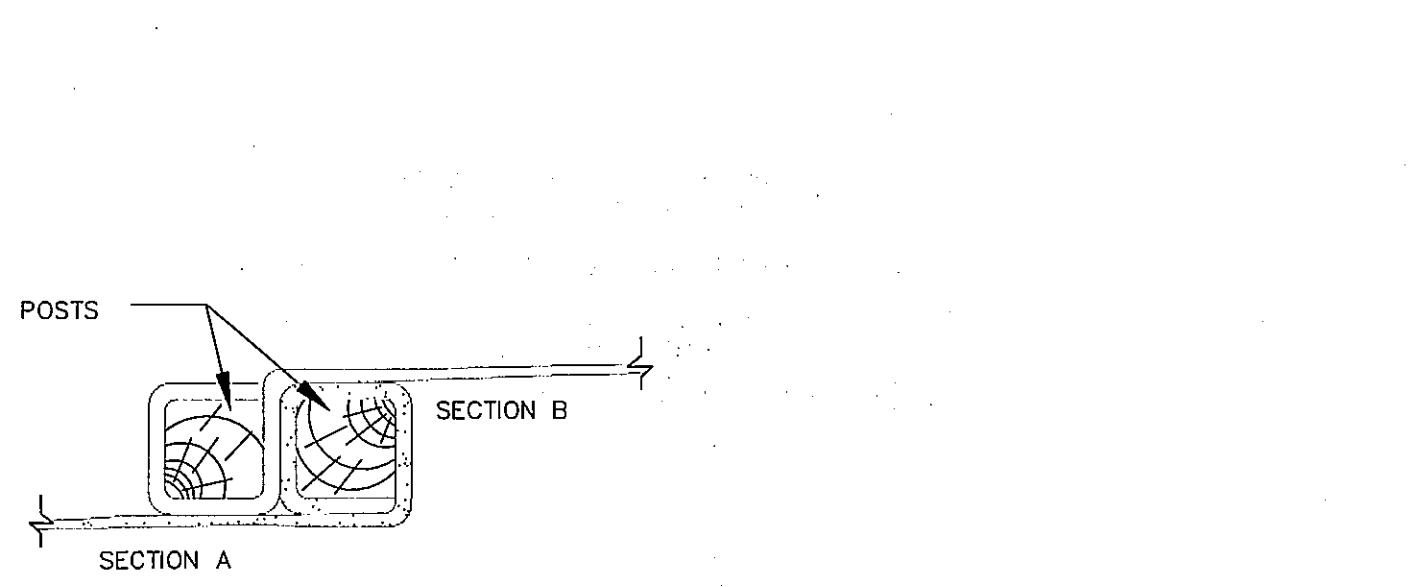
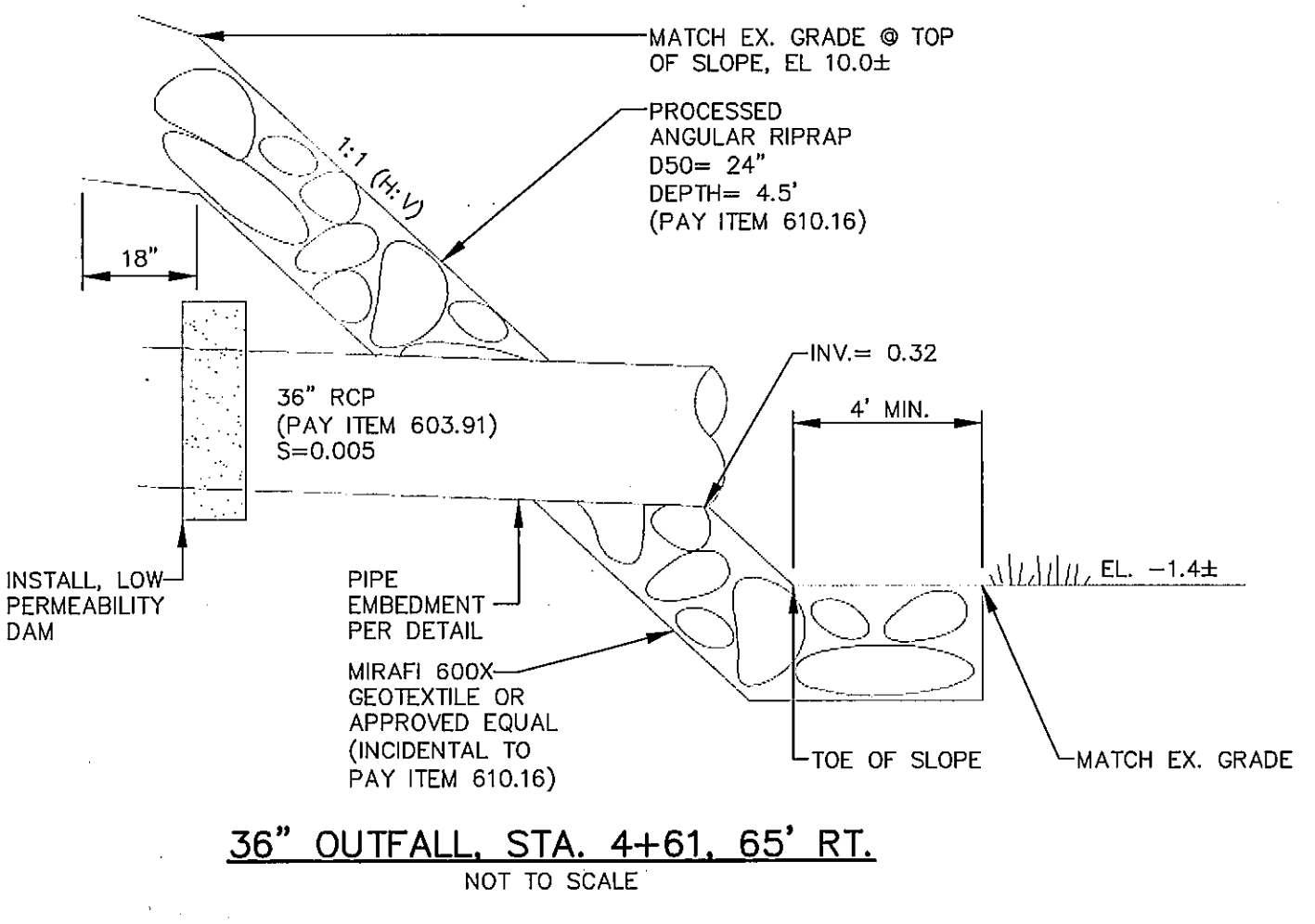
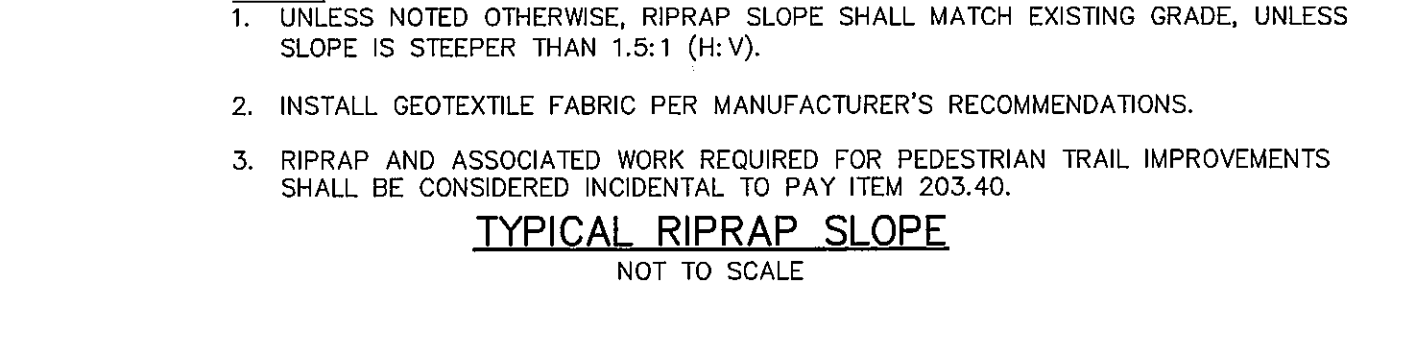
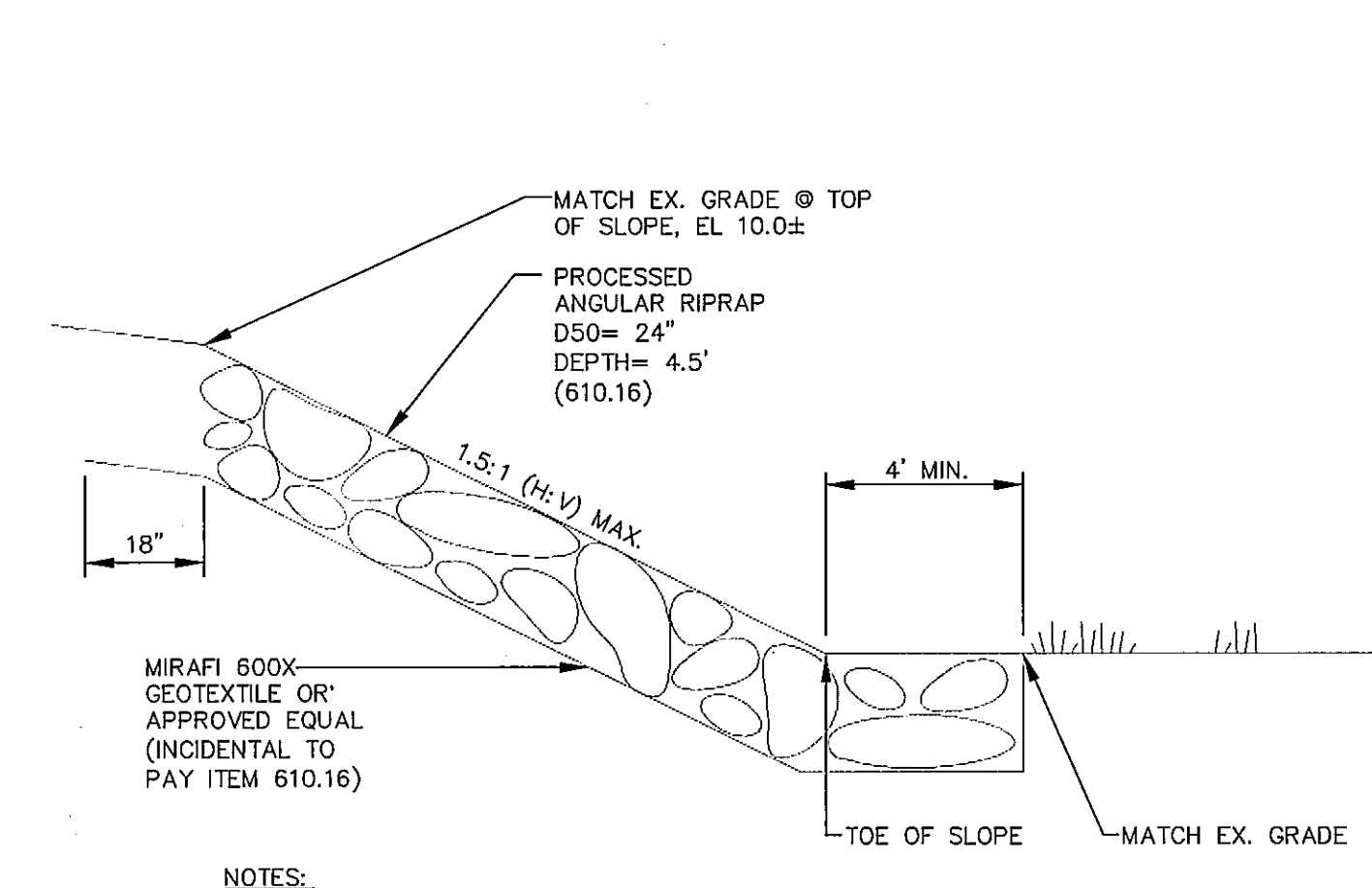
SHEET #
25 OF 54
PLAN NUMBER



NOTES:

- ALTERNATIVE CONSTRUCTION METHODS OR PAYMENT METHODS SHALL BE APPROVED IN ADVANCE BY THE CITY.
- IN PAVED AREAS REFER TO BITUMINOUS PAVEMENT SECTION FOR DEPTHS OF GRAVEL AND HOT MIX ASPHALT PAVEMENT BASED ON THE CORRESPONDING STREET CLASSIFICATION.
- 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".
- 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.
- EXCAVATION BELOW ESTABLISHED TRENCH PROFILE (IF ORDERED), PAY ITEM 206.061.
- EXCAVATION INCIDENTAL TO PIPE PAY ITEMS (PAVED AND SEEDED AREAS).
- DEPTH OF BITUMINOUS PAVEMENT AND AGGREGATE COURSES SHALL BE DETERMINED BY STREET CLASSIFICATION.
- ANY ALTERNATE TRENCHING OR PAYMENT METHODS SHALL BE APPROVED IN ADVANCE BY THE CITY OF PORTLAND, DEPARTMENT OF PUBLIC SERVICES.

PIPE DIAMETER, "D" (INCHES)	MAX. TRENCH WIDTH, "A" (FEET)	PAVEMENT WIDTH OUTSIDE TRENCH, "C" (FEET)
4	4.0	2.5
6	4.0	2.5
8	4.0	2.5
10	4.0	2.5
12	4.0	2.5
15	4.0	2.5
18	5.0	2.0
21	5.0	2.0
24	5.5	1.75
27	6.0	1.5
30	6.0	1.5
36	7.0	1.0
42	8.0	1.0
48	8.0	1.0



INSTALLATION NOTES:

- EXCAVATE A 6"x6" TRENCH ALONG THE LINE OF PLACEMENT FOR THE FILTER BARRIER.
- UNROLL A SECTION AT A TIME AND POSITION THE POSTS AGAINST THE BACK (DOWNSTREAM) WALL OF THE TRENCH.
- DRIVE POSTS INTO THE GROUND UNTIL APPROXIMATELY 2" OF FABRIC IS LYING ON THE TRENCH BOTTOM.
- LAY THE TOE-IN FLAP OF FABRIC ONTO THE UNDISTURBED BOTTOM OF THE TRENCH, BACKFILL THE TRENCH AND TAMP THE SOIL. TOE-IN CAN ALSO BE ACCOMPLISHED BY LAYING THE FABRIC FLAP ON UNDISTURBED GROUND AND PILING AND TAMPING FILL AT THE BASE, BUT MUST BE ACCOMPANIED BY AN INTERCEPTION DITCH.
- JOIN SECTION AS SHOWN ABOVE.
- BARRIER SHALL BE MIRAFI SILT FENCE OR EQUAL.

RIPRAP SLOPE CONSTRUCTION NOTES

- PRE-CONSTRUCTION**
- MEET ON SITE WITH OWNER, SITE CONTRACTOR, AND THE DESIGN ENGINEER TO DISCUSS SCOPE OF WORK AND EXPECTATIONS. DETERMINE LIMITS OF TIDAL "SPARTINA" GRASS.
 - CONTRACTOR SHALL HAVE ALL MATERIALS APPROVED BY THE DESIGN ENGINEER PRIOR TO INSTALLATION.
 - SEE LAYOUT & DEMOLITION PLAN FOR LIMITS OF EXISTING PIPE REMOVAL.
- CONSTRUCTION PHASE**
- STABILIZE DISTURBED AREAS IN ACCORDANCE WITH THE EROSION AND SEDIMENT CONTROL BMP MANUAL, LATEST EDITION. SEE THE EROSION & SEDIMENT CONTROL NOTES AND PLAN FOR ADDITIONAL REQUIREMENTS. PROTECT NEARBY TREES, WHICH ARE PROPOSED TO REMAIN, TO THE EXTENT PRACTICAL, PROTECT THE ROOT ZONE OF THESE TREES.
 - THE CONTRACTOR SHALL CONSIDER THE TIDE SCHEDULE CAREFULLY, AND SHALL SCHEDULE WORK TO AVOID INTERRUPTIONS OF DAYLIGHT WORKING HOURS WITH HIGH TIDES. WORKING WITHIN TIDAL WATERS IS NOT PERMITTED.
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 - INSTALL RIPRAP SLOPE IN ACCORDANCE WITH THE DETAILS. ONCE THE CHECK VALVE VAULT, SEWER PIPE, BOX CULVERT AND RIPRAP SLOPE ARE COMPLETELY INSTALLED, THE CONTRACTOR SHALL GRADE THE DISTURBED AREAS UNIFORMLY TO MATCH EXISTING TOPOGRAPHY (U.N.O.) AND THE NEW RIPRAP EDGE.
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 - USING RAZOR BLADE, CAREFULLY CUT HOLES 1 FOOT O.C. AND IN ROWS SPACED 1 FOOT APART. LOOSELY OFFSET HOLES BETWEEN ROWS FOR APPROXIMATELY 6-8 HOLES PER SQUARE YARD. PLANT CORD GRASS SPARTINA PATENS (SALT MEADOW GRASS) AND SPARTINA ALTERNIFLORA (SMOOTH CORDGRASS) PLUGS IN ALTERNATING FASHION. COSTS ASSOCIATED WITH CUTTING FABRIC AND PLANTING GRASS PLUGS WILL BE PAID THROUGH BID ITEM 615.072.
 - CONTINUE TO INSPECT THE SITE EVERY TWO WEEKS FOR SIGNS OF EROSION AND ESTABLISHMENT OF VEGETATION.

LDD PROJECT NAME: BAXTER BOULEVARD NORTH STORAGE CONDUIT DRAWING NAME: 09006D FIELD BOOK USED: N/A

REGISD BY: DAN/DOB DRAWN BY: CAB CHECKED BY: DAM SCALE: AS NOTED DATE: 11-30-2012

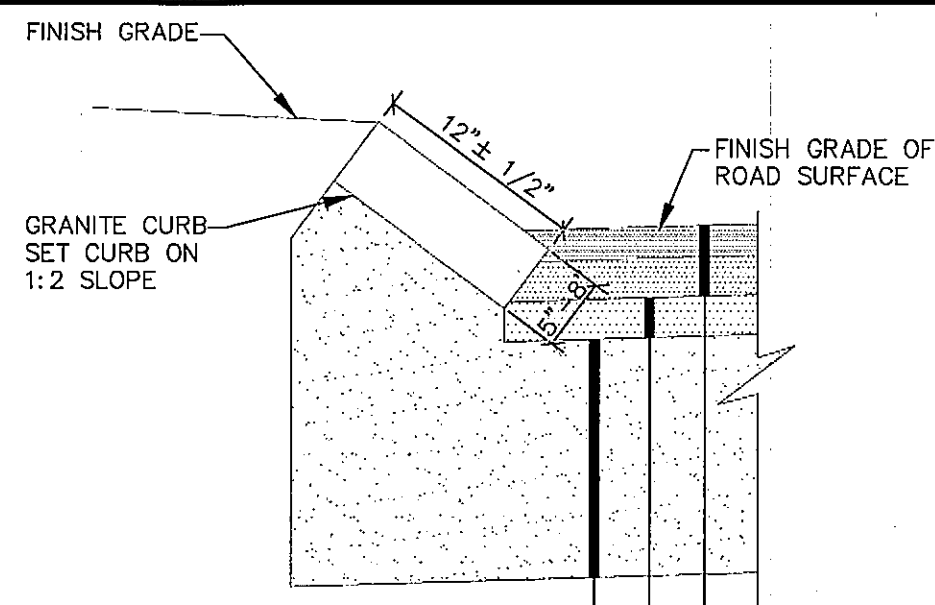
STATE OF MAINE
CRAIG A. BURGESS
No. 12638
LICENSED PROFESSIONAL ENGINEER

BAXTER BOULEVARD
NORTH STORAGE CONDUIT
STANDARD
CONSTRUCTION DETAILS

CITY OF PORTLAND, MAINE
PUBLIC SERVICES DEPARTMENT
ENGINEERING DIVISION

CITY OF PORTLAND, MAINE
TAYLOR RESURGAM
PORTLAND, MAINE

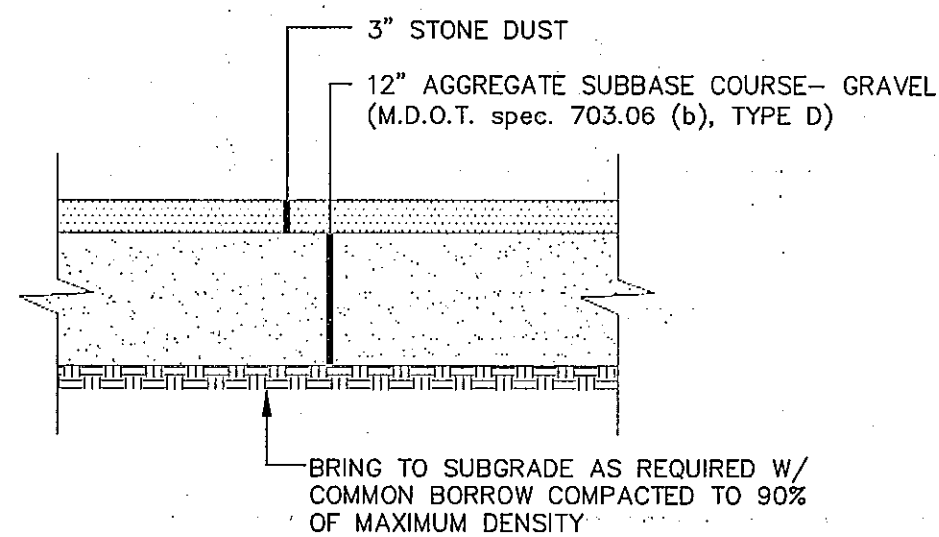
SHEET # 26 OF 54
PLAN NUMBER



NOTE:
1. REUSE EXISTING GRANITE CURB WHEN POSSIBLE.

5" HOT BIT. PAVEMENT M.D.O.T. 2" GRADING "C", 3" GRADING "B"
3" CRUSHED AGGREGATE BASE COURSE M.D.O.T. spec. 703.06(a) TYPE B
18" AGGREGATE SUBBASE COURSE M.D.O.T. spec. 703.06(b) TYPE D

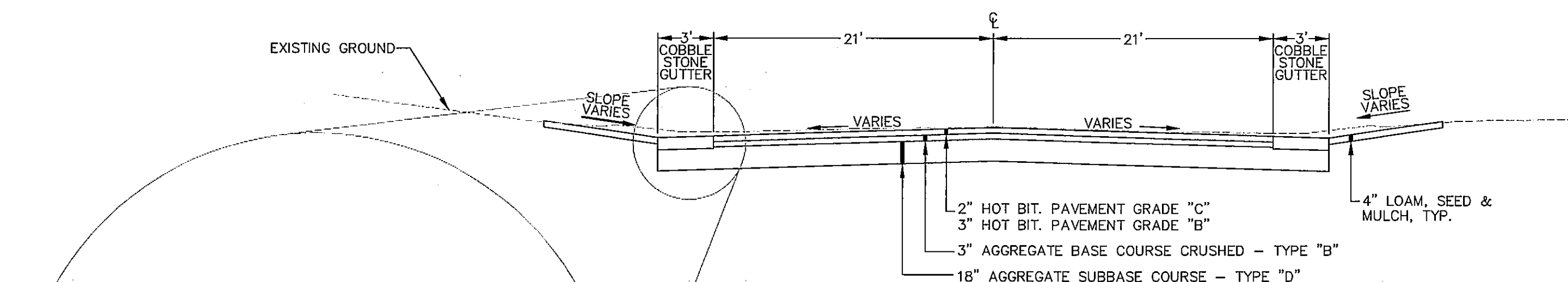
TYPE 5 GRANITE CURB SECTION
NOT TO SCALE



BRING TO SUBGRADE AS REQUIRED W/ COMMON BORROW COMPACTED TO 90% OF MAXIMUM DENSITY

3" STONE DUST
12" AGGREGATE SUBBASE COURSE- GRAVEL (M.D.O.T. spec. 703.06 (b), TYPE D)

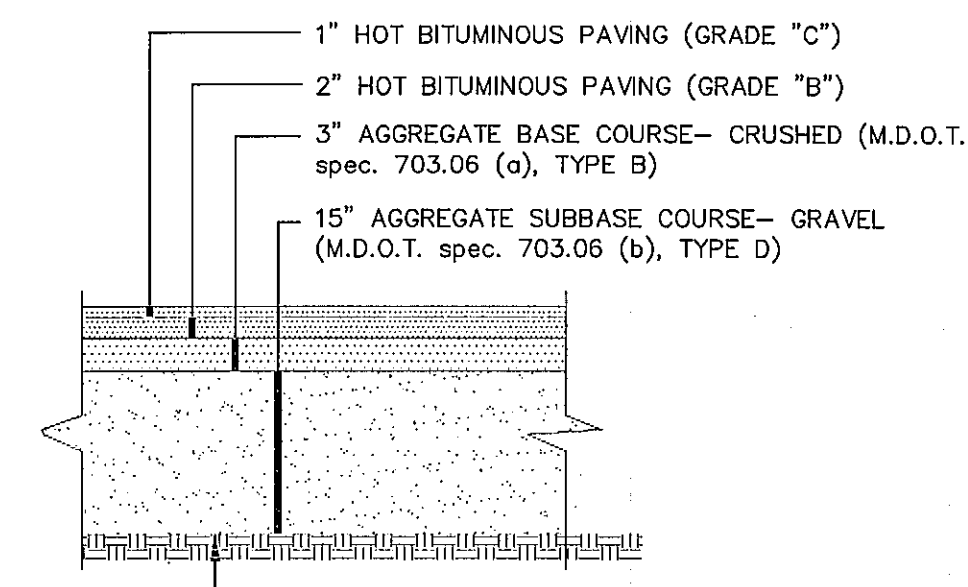
TYPICAL TRAIL SECTION
NOT TO SCALE



BAXTER BOULEVARD TYPICAL SECTION
NOT TO SCALE

BASE TEMPERATURE °F	MAT THICKNESS, IN INCHES					
	1/2	3/4	1	1 1/2	2	3
+40 - 50	-	-	310	300	285	275
+50 - 60	-	310	300	295	280	270
+60 - 70	310	300	290	285	270	265
+70 - 80	300	290	285	280	270	265
+80 - 90	290	280	275	270	265	260
+90	280	275	270	265	260	255
ROLLING TIME MIN.	4	6	8	12	15	15

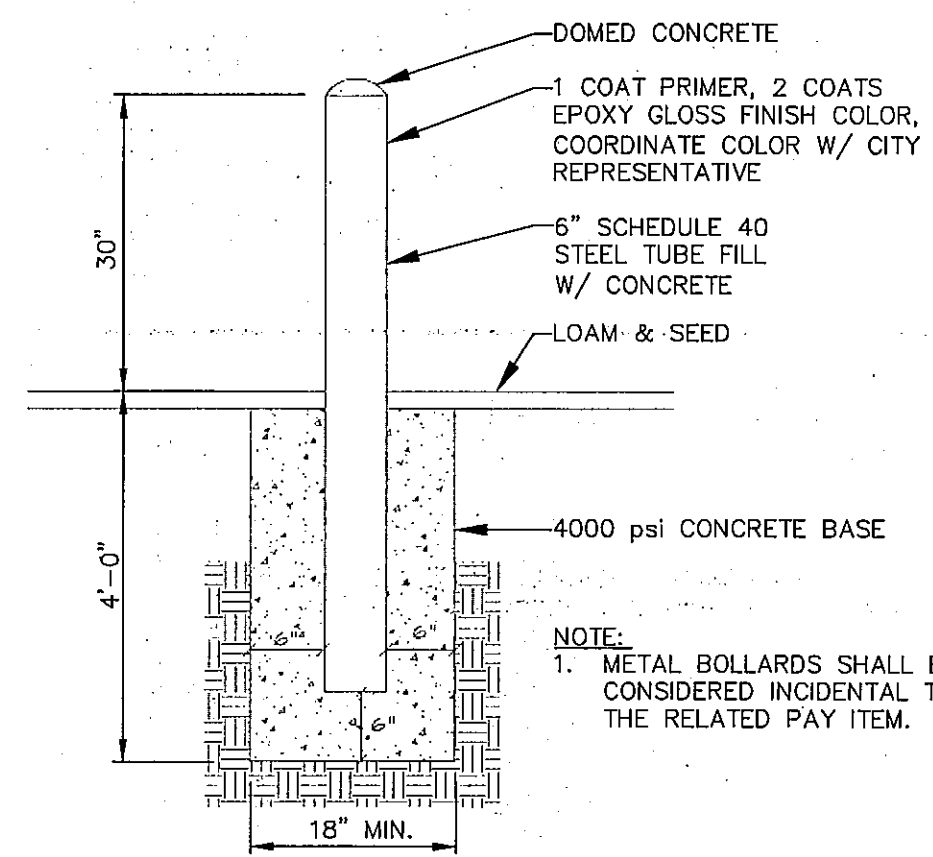
1. BASE ON WHICH MAT IS PLACED. 2. AND GREATER



BRING TO SUBGRADE AS REQUIRED W/ COMMON BORROW COMPACTED TO 90% OF MAXIMUM DENSITY.

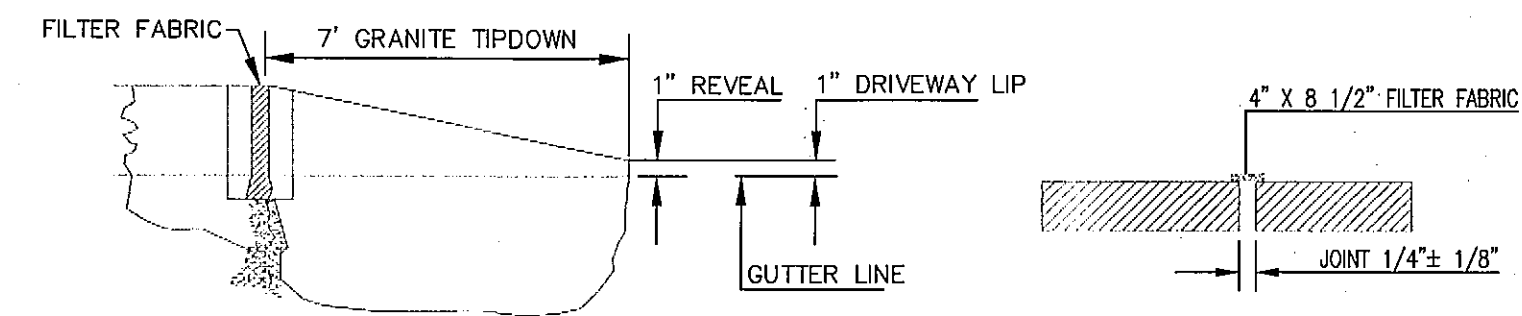
1" HOT BITUMINOUS PAVING (GRADE "C")
2" HOT BITUMINOUS PAVING (GRADE "B")
3" AGGREGATE BASE COURSE- CRUSHED (M.D.O.T. spec. 703.06 (a), TYPE B)
15" AGGREGATE SUBBASE COURSE- GRAVEL (M.D.O.T. spec. 703.06 (b), TYPE D)

TYPICAL PAVED PARKING AREA SECTION
NOT TO SCALE

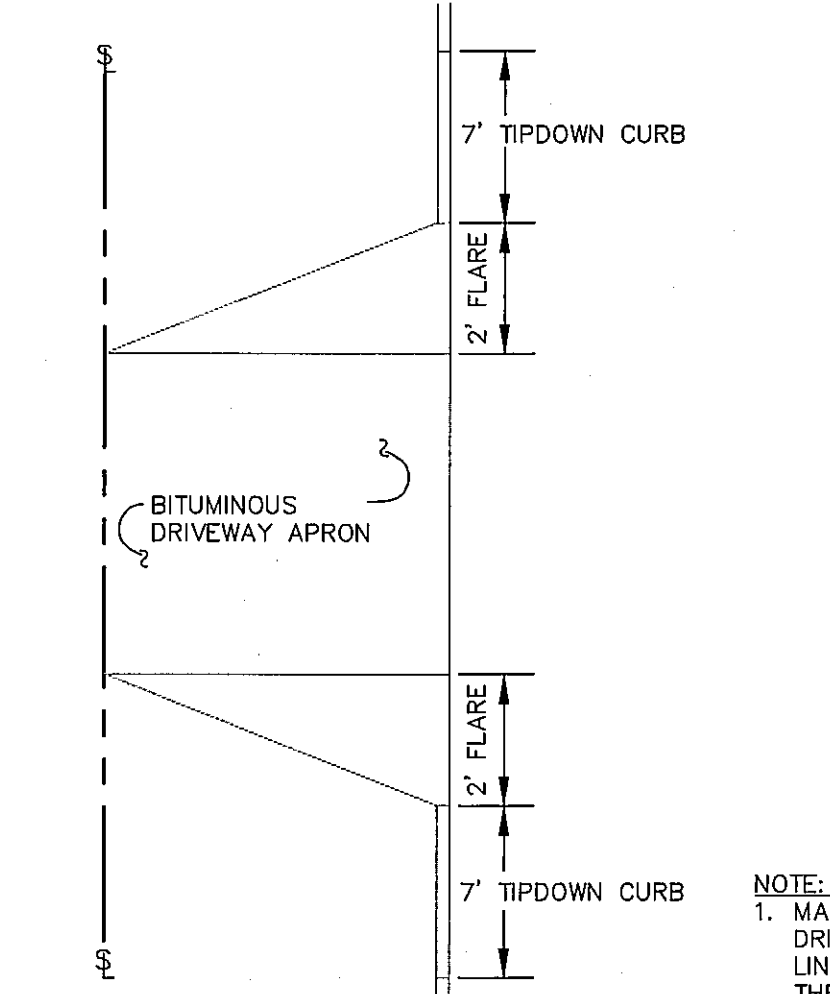


NOTE:
1. METAL BOLLARDS SHALL BE CONSIDERED INCIDENTAL TO THE RELATED PAY ITEM.

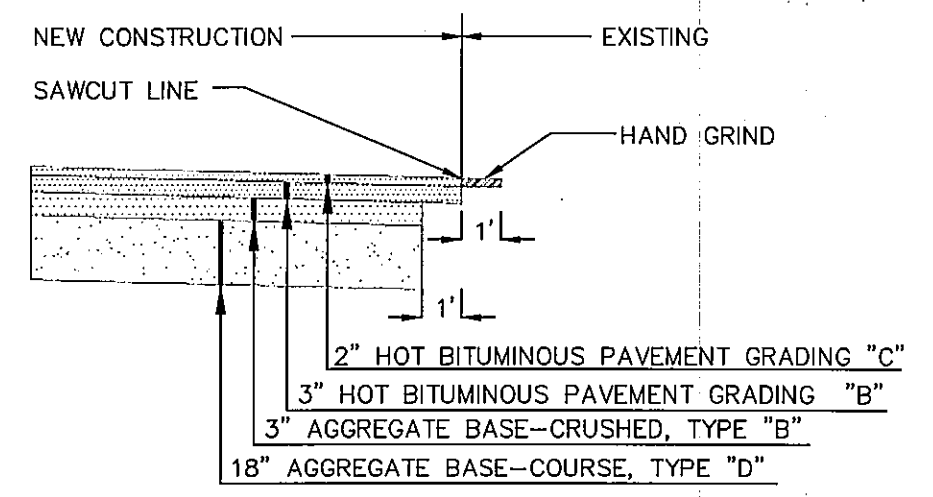
METAL BOLLARD
NOT TO SCALE



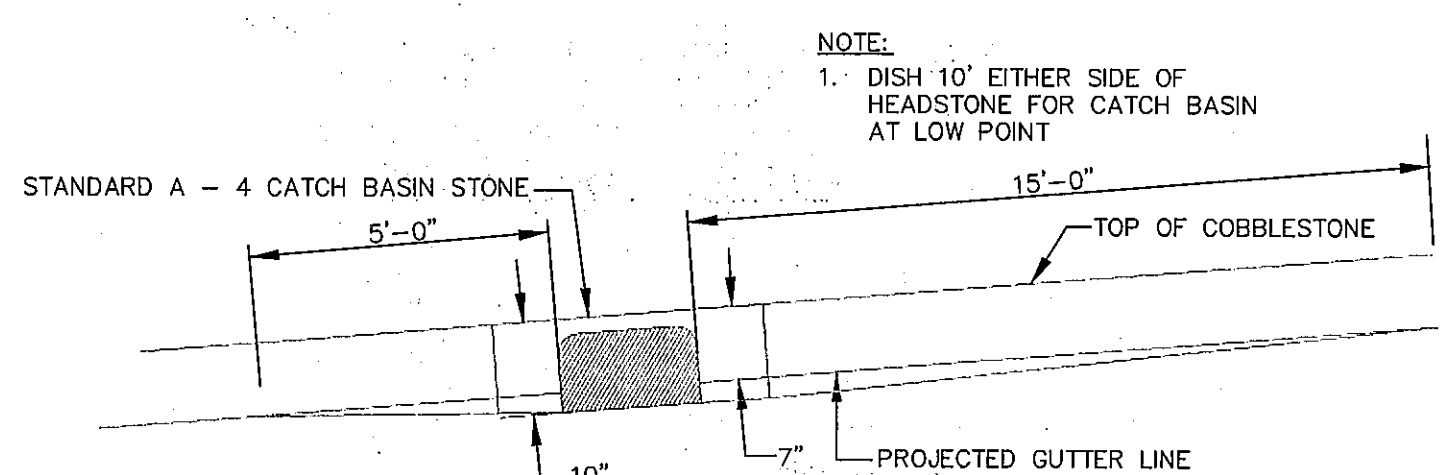
TYPICAL TIPDOWN CURB INSTALLATION
NOT TO SCALE



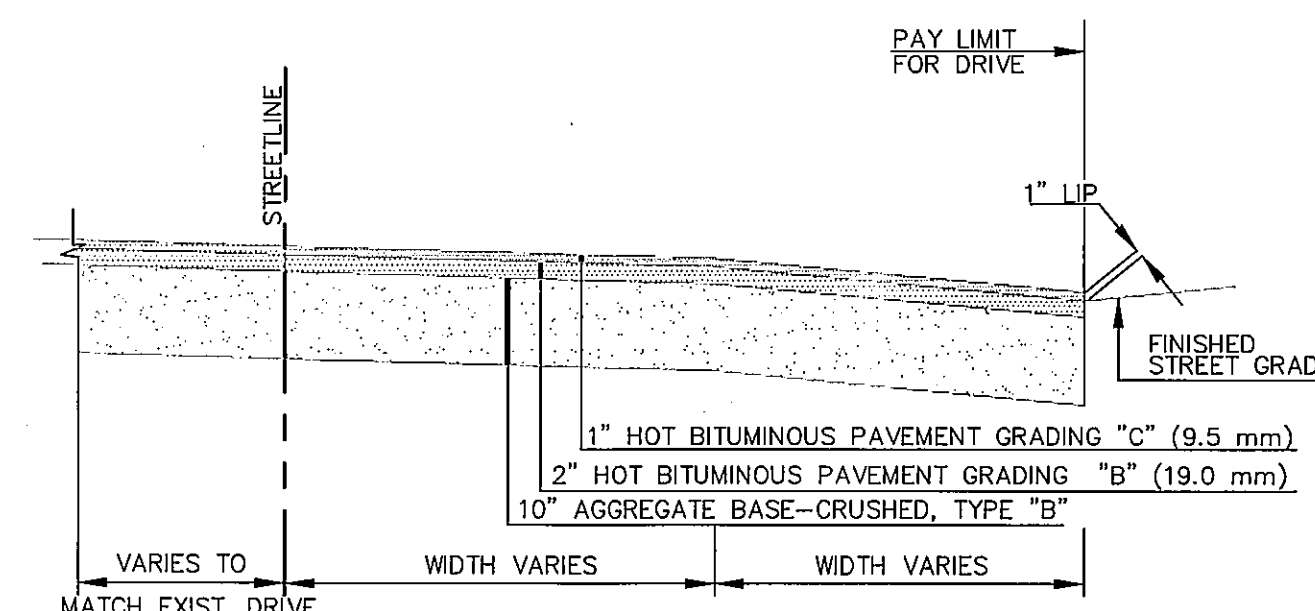
TYPICAL DRIVEWAY APRON LAYOUT
NOT TO SCALE



PAVEMENT BUTT JOINT
NOT TO SCALE

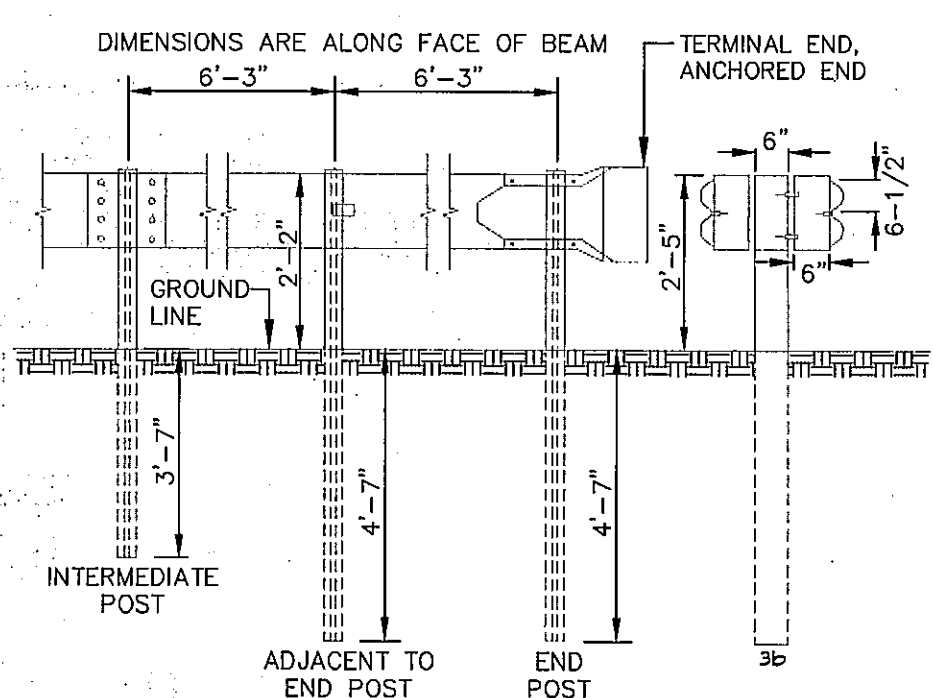


TYPICAL PAVEMENT GRADING ON SLOPES FOR CATCH BASIN & INLET
NOT TO SCALE



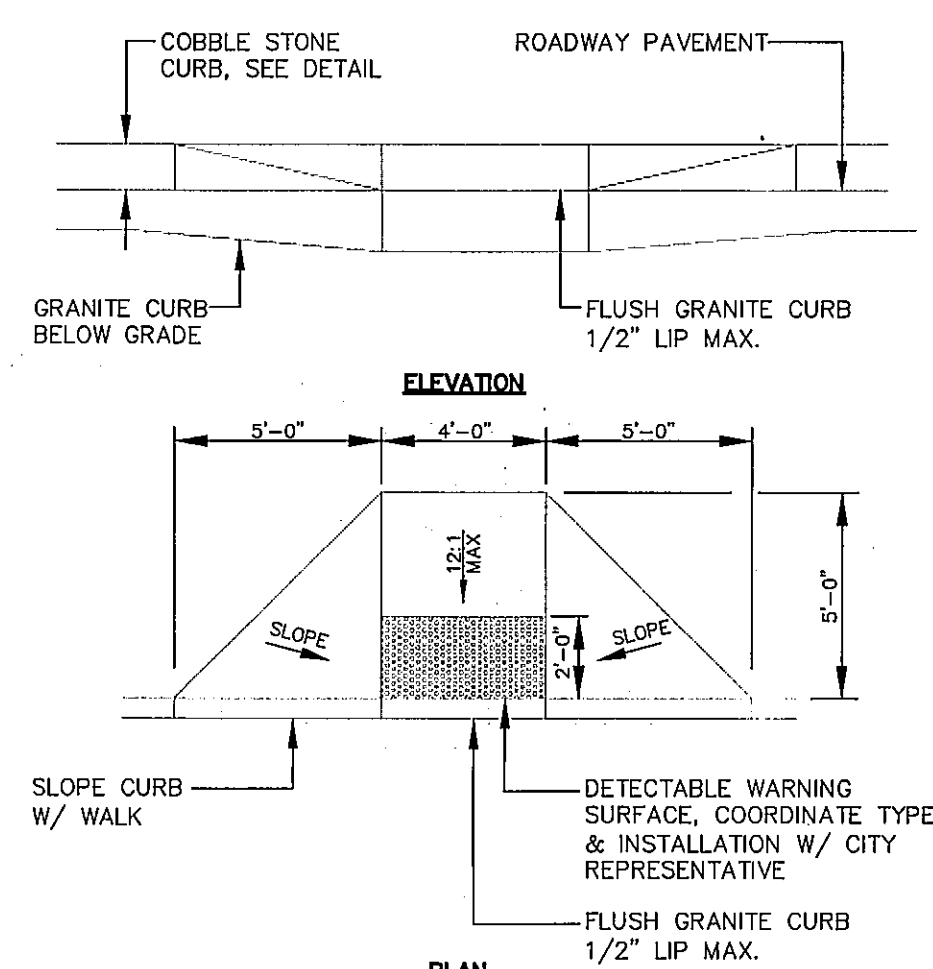
BITUMINOUS DRIVEWAY SECTION
NOT TO SCALE

NOTES:
1. DRY SAND-CEMENT MIX SHALL BE: SIX (6) PARTS OF WASHED MORTAR SAND TO ONE (1) PART PORTLAND CEMENT.
2. DRY SAND-CEMENT SHALL BE PLACED AND SWEEPED INTO THE JOINTS TO WITHIN 1/4" TO 1/2" OF PAVER SURFACE.
3. ALL SURPLUS SAND-CEMENT SHALL BE SWEEPED FROM THE GRANITE PAVER SURFACE.
4. A FINAL APPLICATION OF SAND ONLY SHALL BE SPREAD ON THE GRANITE PAVER SURFACE.
5. REUSE EXISTING GRANITE PAVERS TO GREATEST EXTENT POSSIBLE.



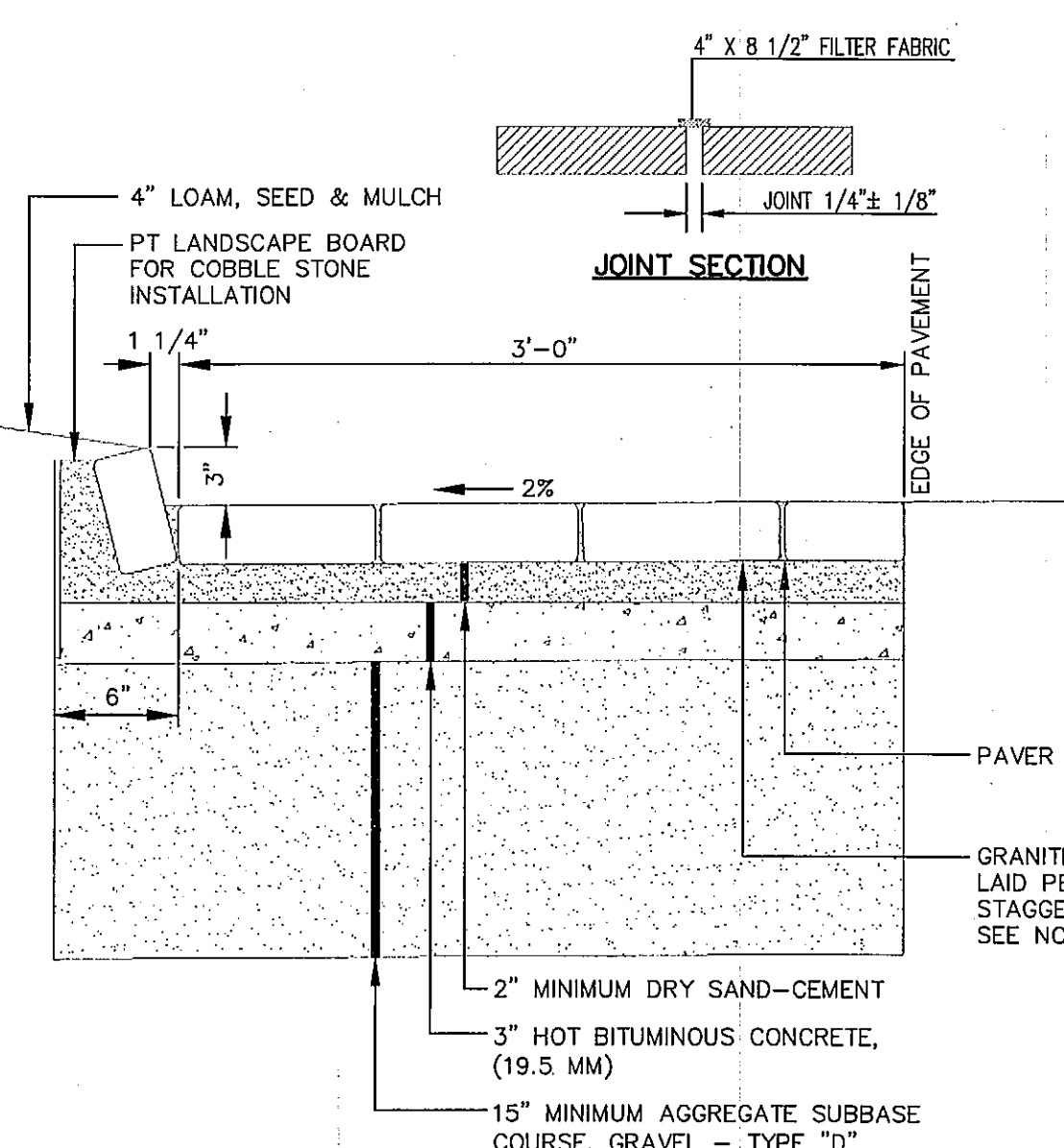
NOTES:
1. GUARDRAIL SHALL BE INSTALLED IN ACCORDANCE WITH SECTION 606 AND MEET THE REQUIREMENTS OF MDOT TYPE 3B - DOUBLERAIL (PAY ITEM 606.18).
2. POSTS AND OFFSET BRACKETS FOR TYPE 3b GUARD RAIL SHALL BE W 6x9.
3. ALL HOLES IN BEAM TO BE SHOP-PUNCHED BEFORE GALVANIZING.

GUARDRAIL TYPE 3b (DOUBLE RAIL)
NOT TO SCALE



NOTES:
1. INSTALL CONCRETE PEDESTRIAN RAMP WITH 10" MINIMUM AGGREGATE BASE COURSE, GRAVEL - TYPE "B".
2. CAST IN PLACE CONCRETE SHALL MEET SPECIFICATIONS FOR MDOT CLASS A STRUCTURAL CONCRETE, MINIMUM COMPRESSIVE STRENGTH 4,000 PSI. THE CONCRETE SHALL BE SEALED PRIOR TO SETTING PANELS. THE EXPOSED CONCRETE BORDER SHALL RECEIVE A GROOVED EDGE BETWEEN THE TILE AND CONCRETE, ALONG WITH A UNIFORM BROOM FINISH PERPENDICULAR TO THE FLOW OF PEDESTRIAN TRAFFIC.

CONCRETE PEDESTRIAN RAMP @ CROSSWALK
NOT TO SCALE

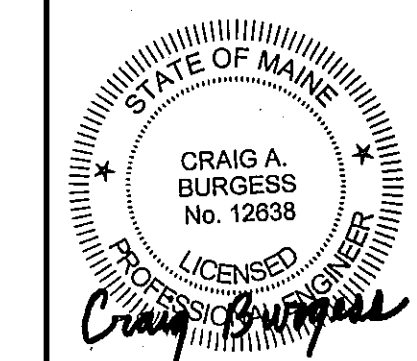


COBBLE STONE GUTTER SECTION
NOT TO SCALE

LDD PROJECT NAME:
BAXTER BOULEVARD
NORTH STORAGE CONDUIT
DRAWING NAME:
09006D
FIELD BOOK USED:
N/A

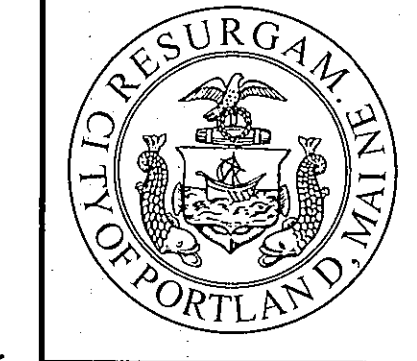
REFERENCES:
09006D.dwg, TAB:DETAIL3

DESIGNED BY:
DRAWN BY:
CHECKED BY:
SCALE:
DATE:

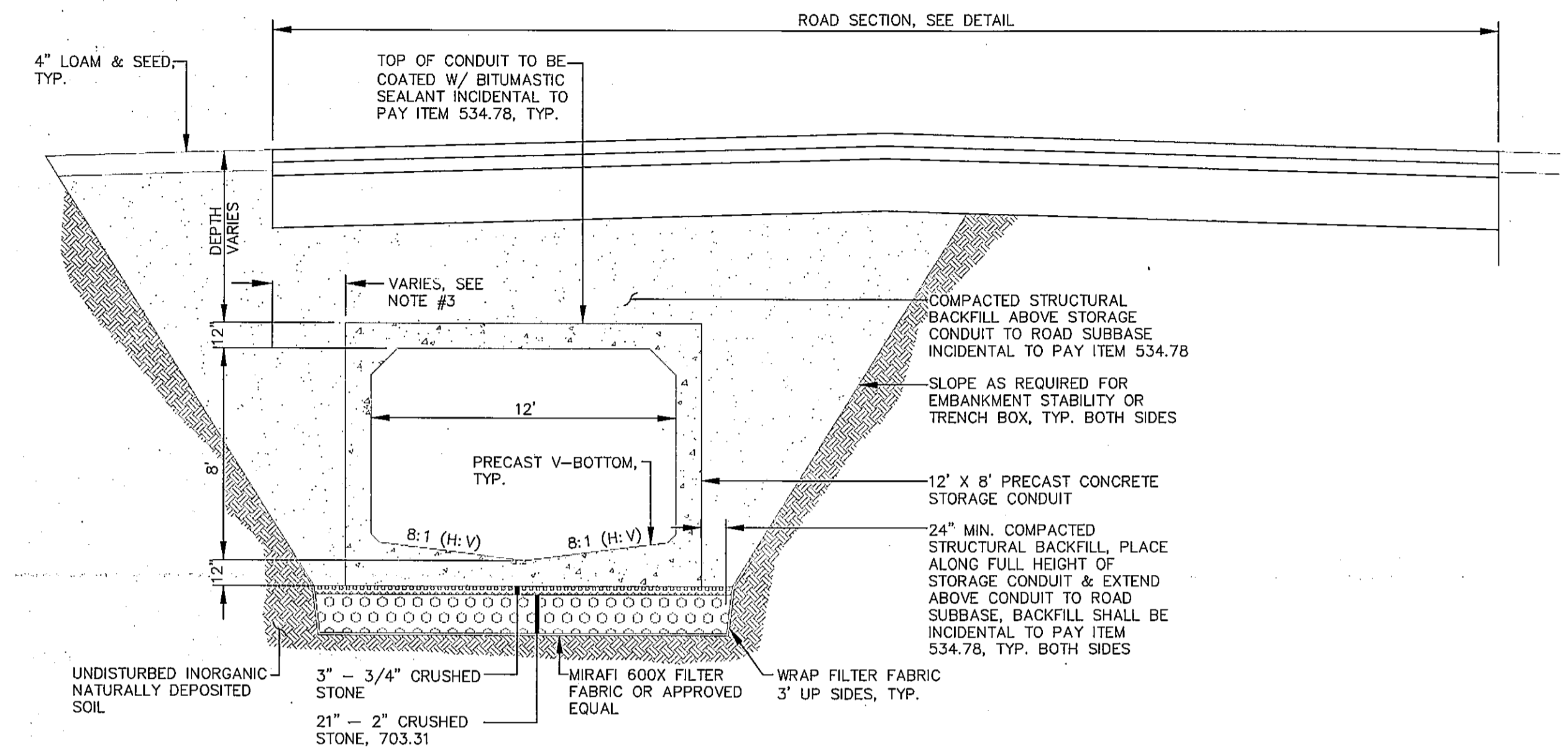
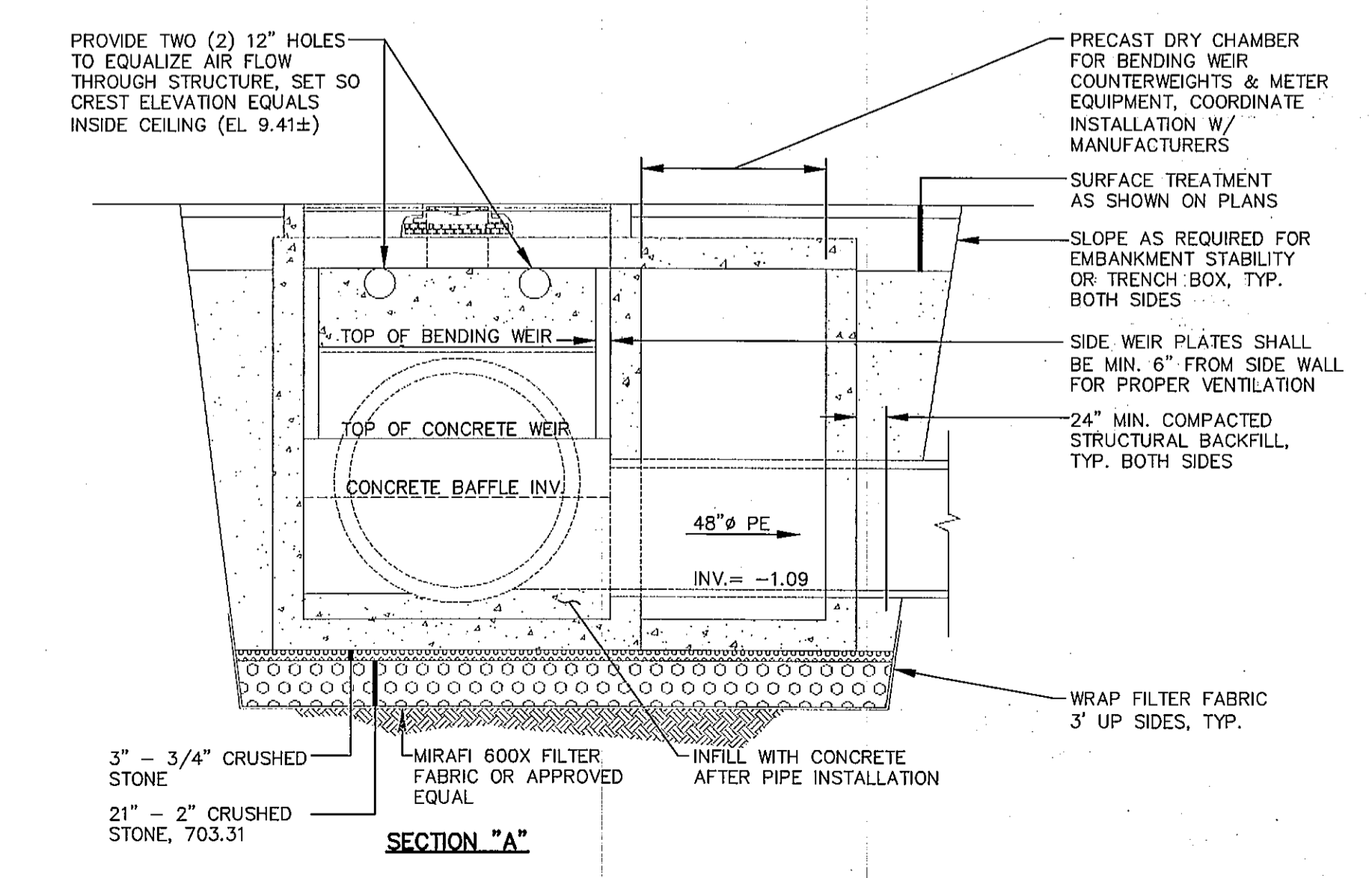
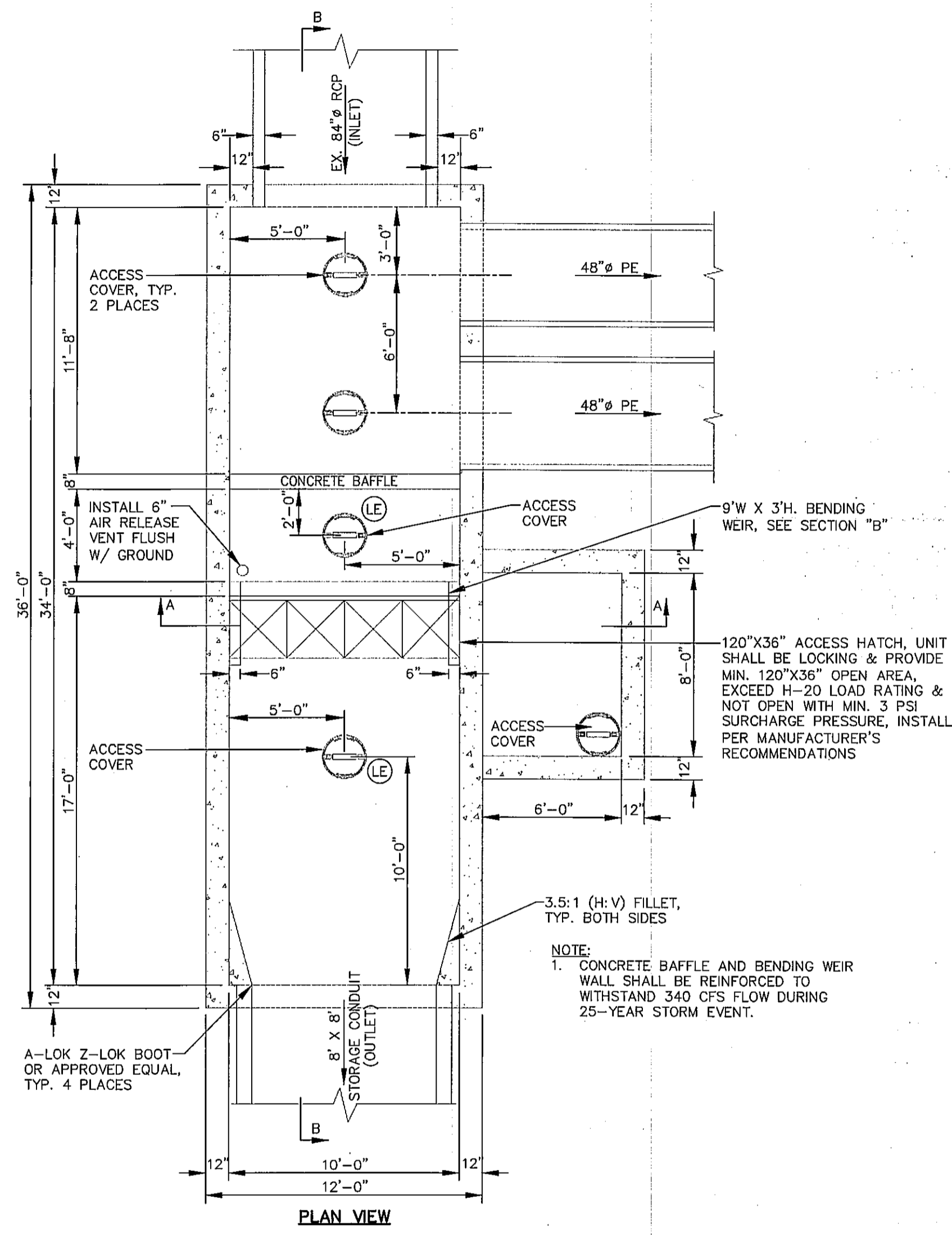


BAXTER BOULEVARD
NORTH STORAGE CONDUIT
STANDARD
CONSTRUCTION DETAILS

CITY OF PORTLAND, MAINE
PUBLIC SERVICES DEPARTMENT
ENGINEERING DIVISION

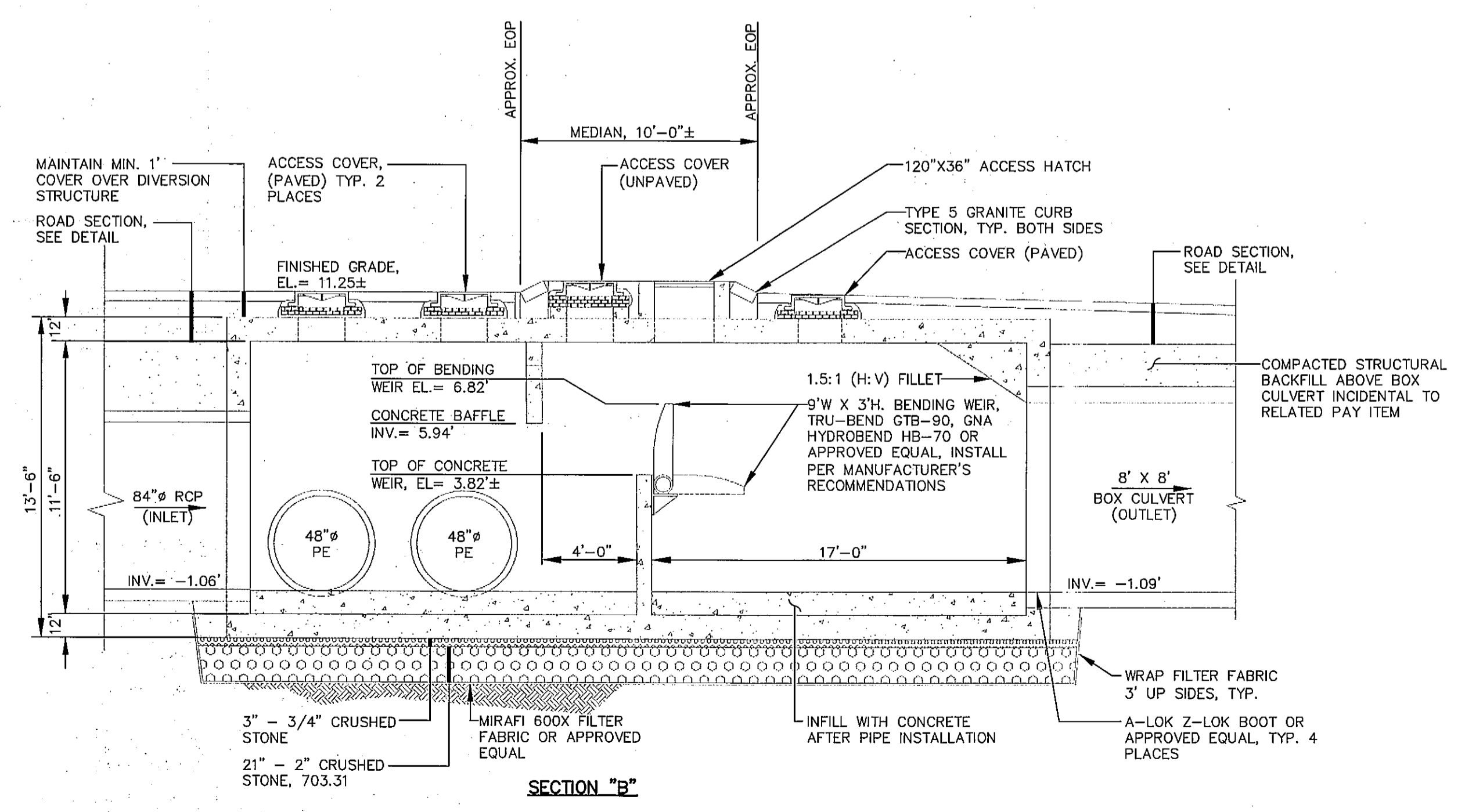


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PLAN NUMBER

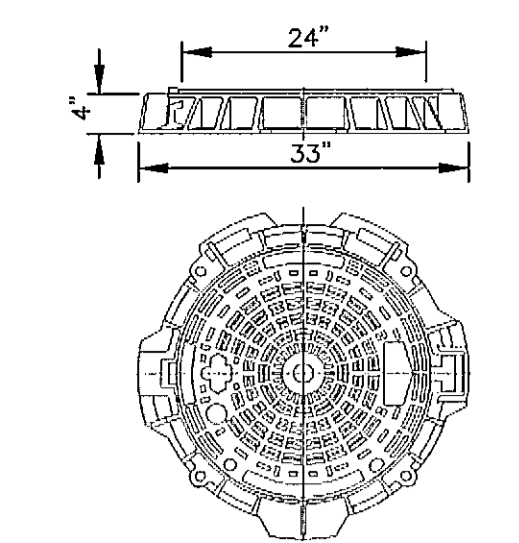


TYPICAL SECTION - CSO-007 12' X 8' STORAGE CONDUIT
 NOT TO SCALE
 REFER TO CONTRACT SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS

- NOTES - ALL STRUCTURES AND STORAGE CONDUIT:**
- CONTRACTOR SHALL USE SMOOTH BUCKET TO EXCAVATE BOTTOM OF TRENCH TO SUBGRADE ELEVATIONS.
 - STORAGE CONDUIT AND STRUCTURES WILL BE WITHIN TIDAL AREAS. CONTRACTOR SHALL BE RESPONSIBLE TO ADDRESS TIDAL CONDITIONS WORK SCHEDULE TIMES, DEWATERING OR OTHER MEANS WORK SCHEDULE TIMES, DEWATERING OR OTHER MEANS INCIDENTAL TO BOX CONDUIT INSTALLATION.
 - SEE PLAN & PROFILE DRAWINGS FOR STORAGE CONDUIT HORIZONTAL ALIGNMENT AND INVERT INFORMATION.
 - ROADWAY FULL DEPTH RECONSTRUCTION LIMITS SHOWN ON PLAN & PROFILE DRAWINGS. SEE BAXTER BOULEVARD ROAD SECTION DETAIL FOR PAVEMENT, BASE AND SUBBASE THICKNESSES.
 - EXCAVATION, SHORING, DEWATERING, STONE BEDDING, COMMON BORROW, STRUCTURAL FILL, ROADWAY BASE AND SUBBASE SHALL BE INCIDENTAL TO STORAGE CONDUIT INSTALLATION (REFER TO CONTRACT SPECIFICATIONS).

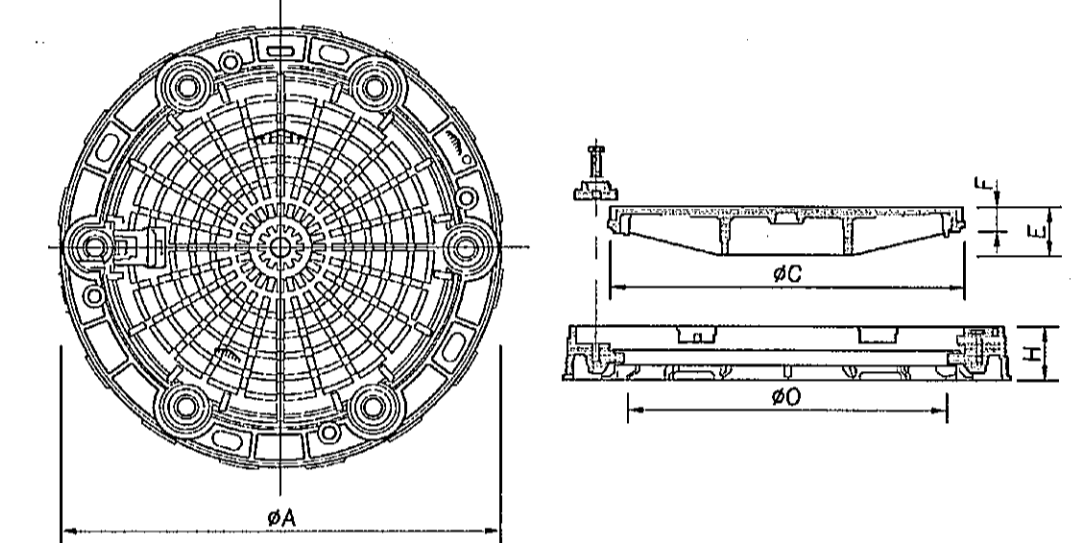


CSO-007 - DIVERSION STRUCTURE (PAY ITEM 534.74)
 NOT TO SCALE
 REFER TO CONTRACT SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS



- NOTES:**
- MANHOLE COVER AND FRAME SHALL BE CALLED PAM REXUS OR APPROVED EQUAL. COVER AND FRAMES SHALL BE MANUFACTURED FROM DUCTILE IRON.
 - COVERS SHALL BE HINGED AND INCORPORATE A 90 DEGREE BLOCKING SYSTEM TO PREVENT ACCIDENTAL CLOSURE. COVERS SHALL BE ONE MAN OPERABLE USING STANDARD TOOLS AND SHALL BE CAPABLE OF WITHSTANDING A TEST LOAD OF 80,000 LBS. THE COVER SHALL INCORPORATE A SPRING BAR LOCKING SYSTEM, WHICH AUTOMATICALLY ACTIVATES WHEN THE COVER IS CLOSED. ADDITIONAL SECURITY FEATURES TO INCLUDE A DEVICE TO PREVENT THE COVER FROM BEING COMPLETELY REMOVED FROM THE FRAME. THIS DEVICE SHALL BE CAPABLE OF BEING DEACTIVATED IF REQUIRED.
 - FRAMES SHALL BE CIRCULAR, INCORPORATE A SEATING RING, AND HAVE A 24 INCH CLEAR OPENING. FRAME DEPTH SHALL NOT EXCEED 4 INCHES, AND THE FLANGE SHALL INCORPORATE BEDDING SLOTS AND BOLTS HOLES.
 - ALL COMPONENTS SHALL BE BLACK COATED.
 - FRAME WEIGHT: 84 LBS., COVER WEIGHT: 71 LBS., TOTAL WEIGHT: 155 LBS.
 - ACCESS FRAME AND COVERS SHALL BE INCIDENTAL TO THE RELATED PAY ITEM.

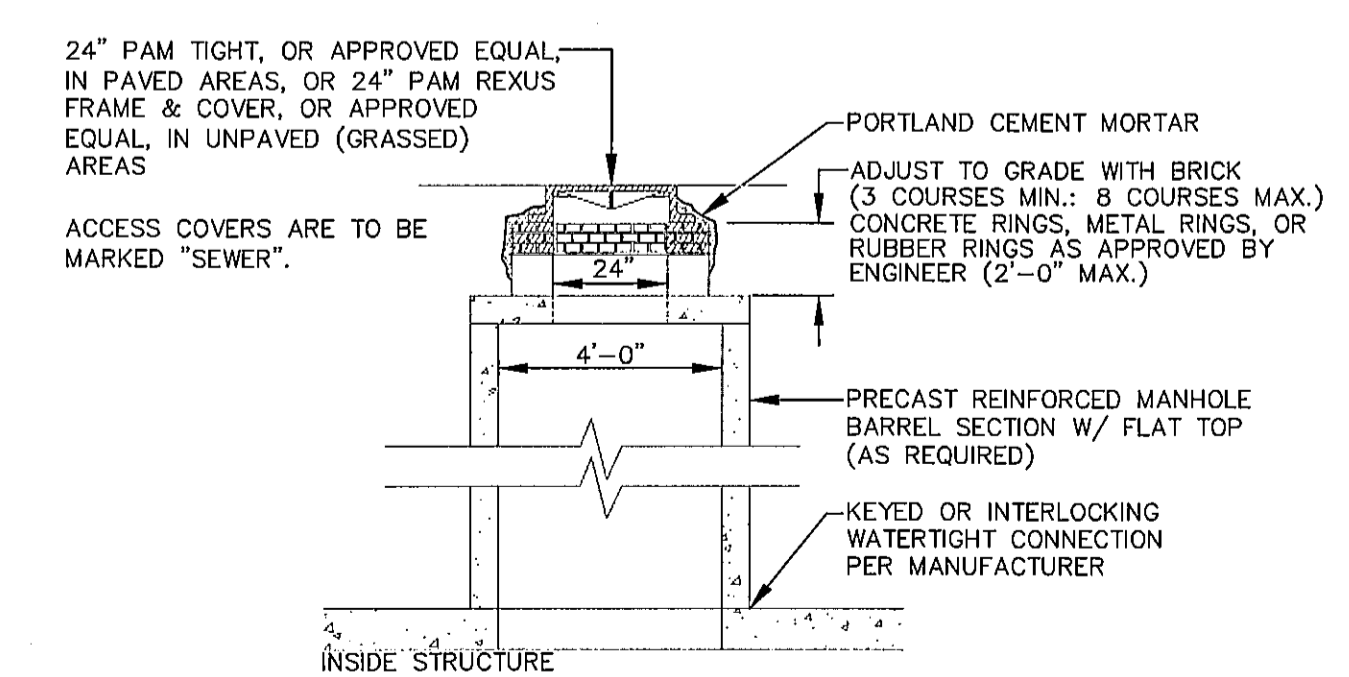
PAM REXUS ACCESS FRAME & COVER
 NOT TO SCALE



DIMENSIONS (INCHES)						ASSEMBLY		COVER
A	C	E	F	H	O	REFERENCE	WEIGHT (LBS)	WEIGHT (LBS)
35	28	4	2	4	24	RE 61 R1 FD	225	116

- NOTES:**
- MANHOLE COVER AND FRAME SHALL BE CALLED PAMTIGHT OR APPROVED EQUAL. COVER AND FRAME SHALL BE MANUFACTURED FROM DUCTILE IRON.
 - COVERS SHALL BE FASTENED TO THE FRAME BY SIX CLAMPING CLAWS HELD BY STAINLESS STEEL BOLTS. COVERS SHALL INCORPORATE A SEALED HANDLING BOX AND BE ONE MAN OPERABLE USING STANDARD TOOLS, AND SHALL BE CAPABLE OF WITHSTANDING A TEST LOAD OF 80,000 LBS.
 - FRAMES SHALL BE CIRCULAR AND BE AVAILABLE IN A 24 INCH CLEAR OPENING. THE FRAME DEPTH SHALL NOT EXCEED 4 INCHES, AND THE FLANGE SHALL INCORPORATE BEDDING SLOTS AND BOLT HOLES.
 - COVER AND FRAME SHALL INCORPORATE A SEATING RING TO PREVENT THE INGRESS AND ESCAPE OF AIR AND WATER TO 14 PSI (1 BAR) POSITIVE OR NEGATIVE RATING.
 - COVER AND FRAME SHALL BE BLACK COATED.
 - FRAME WEIGHT: 109 LBS., COVER WEIGHT: 116 LBS., TOTAL WEIGHT: 225 LBS.
 - ACCESS FRAME AND COVERS SHALL BE INCIDENTAL TO THE RELATED PAY ITEM.

PAMTIGHT ACCESS FRAME & COVER
 NOT TO SCALE



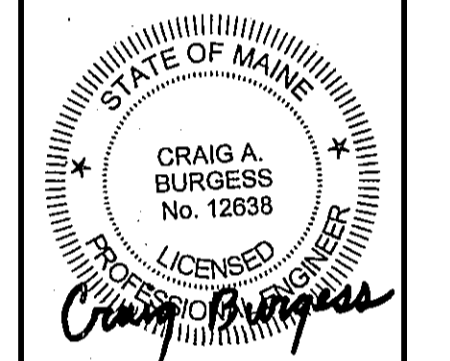
- NOTE:**
- INSTALL 24" PAM TIGHT FRAME AND COVER, OR APPROVED EQUAL, IN ALL PAVED AREAS. INSTALL 24" PAM REXUS FRAME AND COVER WITH PENTA LOCKING KIT, OR APPROVED EQUAL, IN ALL UNPAVED (GRASSED) AREAS. FRAME AND COVER SYSTEMS IN PAVED AREAS SHALL BE LOCKING, WATERTIGHT, EXCEED H-20 AASHTO LOAD RATING, AND EXCEED 3 PSI PRESSURE RATING. FRAME AND COVER SYSTEMS IN UNPAVED (GRASSED) AREAS SHALL BE LOCKING, WATERTIGHT AND EXCEED 3 PSI PRESSURE RATING.
 - ACCESS COVER INSTALLATION SHALL BE INCIDENTAL TO RELATED PAY ITEM.

ACCESS COVER INSTALLATION
 NOT TO SCALE

LDD PROJECT NAME:
 BAXTER BOULEVARD
 NORTH STORAGE CONDUIT
 DRAWING NAME:
 0906GD
 FIELD BOOK USED:
 N/A

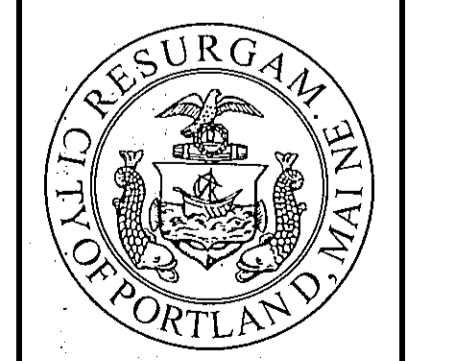
REFERENCES:
 0906GD.dwg, TAB:DETAIL 4

DESIGNED BY:
 OAM/CAB
 DRAWN BY:
 CAB
 CHECKED BY:
 OAM
 SCALE:
 AS NOTED
 DATE:
 11-15-2012

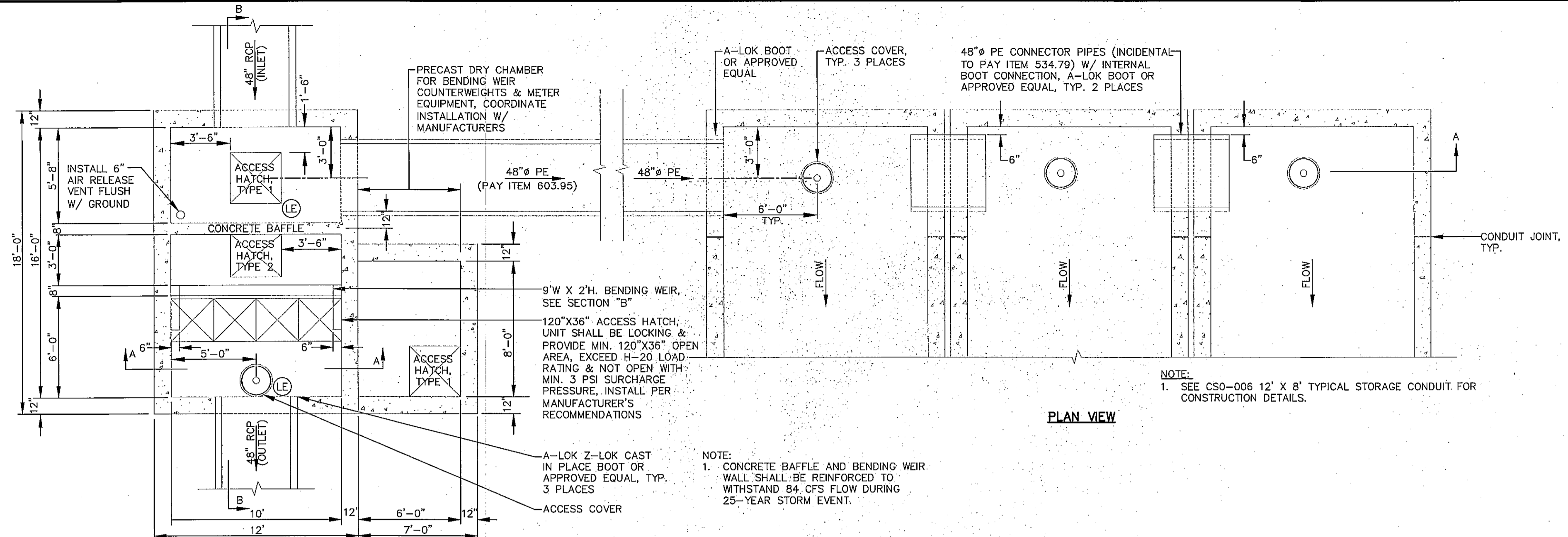


**BAXTER BOULEVARD
 NORTH STORAGE CONDUIT**
 STANDARD
 CONSTRUCTION DETAILS

CITY OF PORTLAND, MAINE
 PUBLIC SERVICES DEPARTMENT
 ENGINEERING DIVISION



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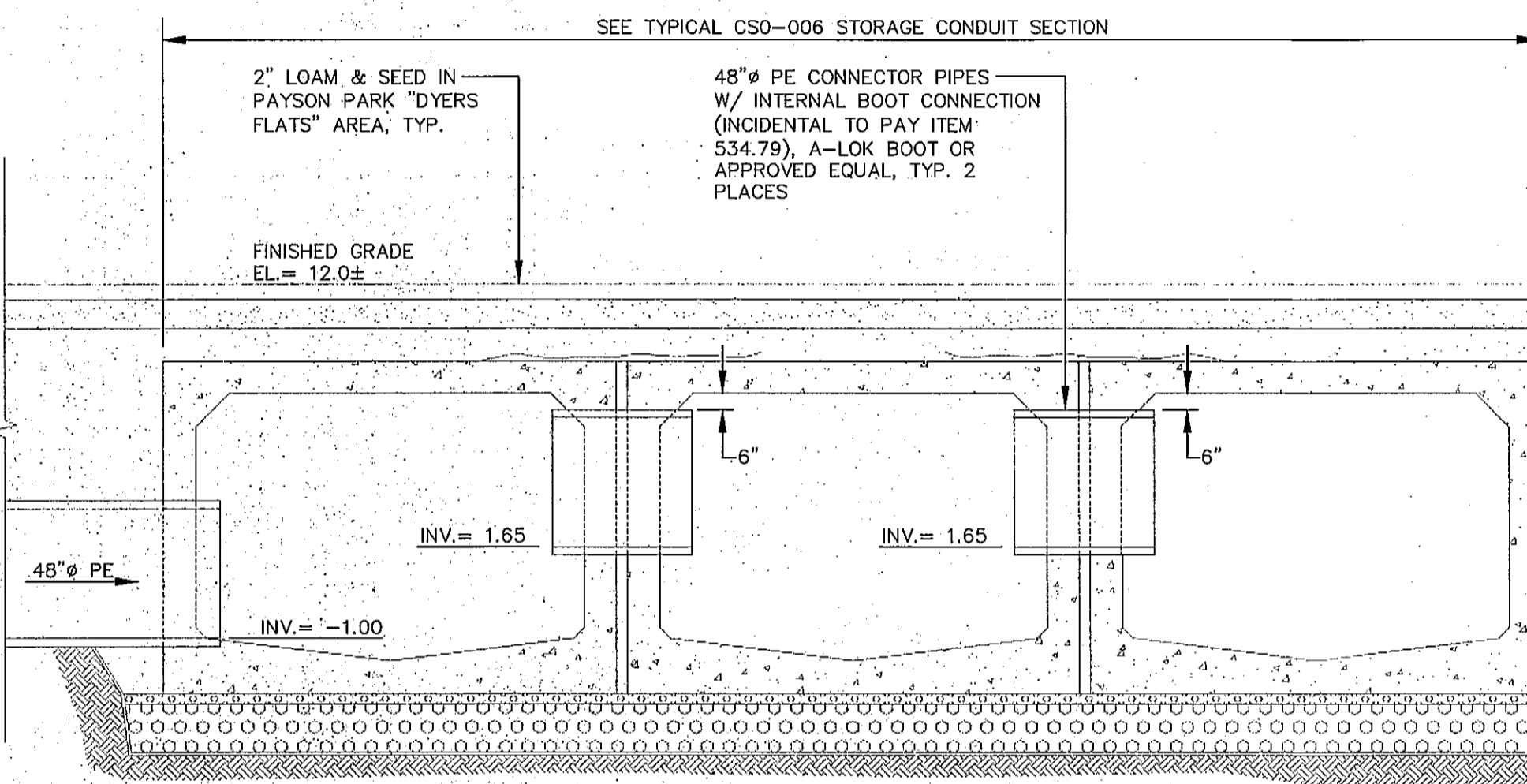
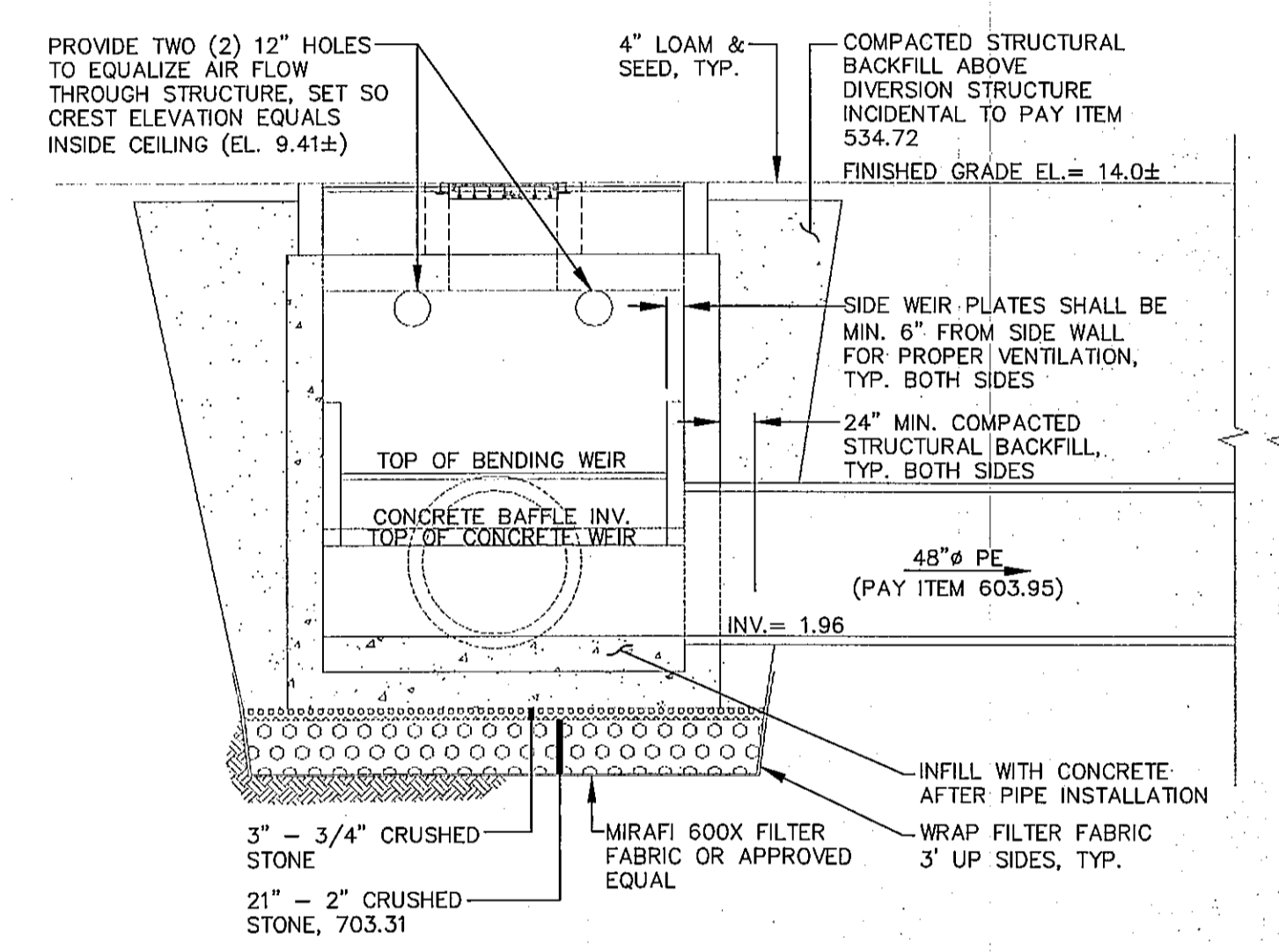


PLAN VIEW

NOTE:
1. SEE CSO-006 12' X 8' TYPICAL STORAGE CONDUIT FOR CONSTRUCTION DETAILS.

NOTE:
1. CONCRETE BAFFLE AND BENDING WEIR WALL SHALL BE REINFORCED TO WITHSTAND 84 CFS FLOW DURING 25-YEAR STORM EVENT.

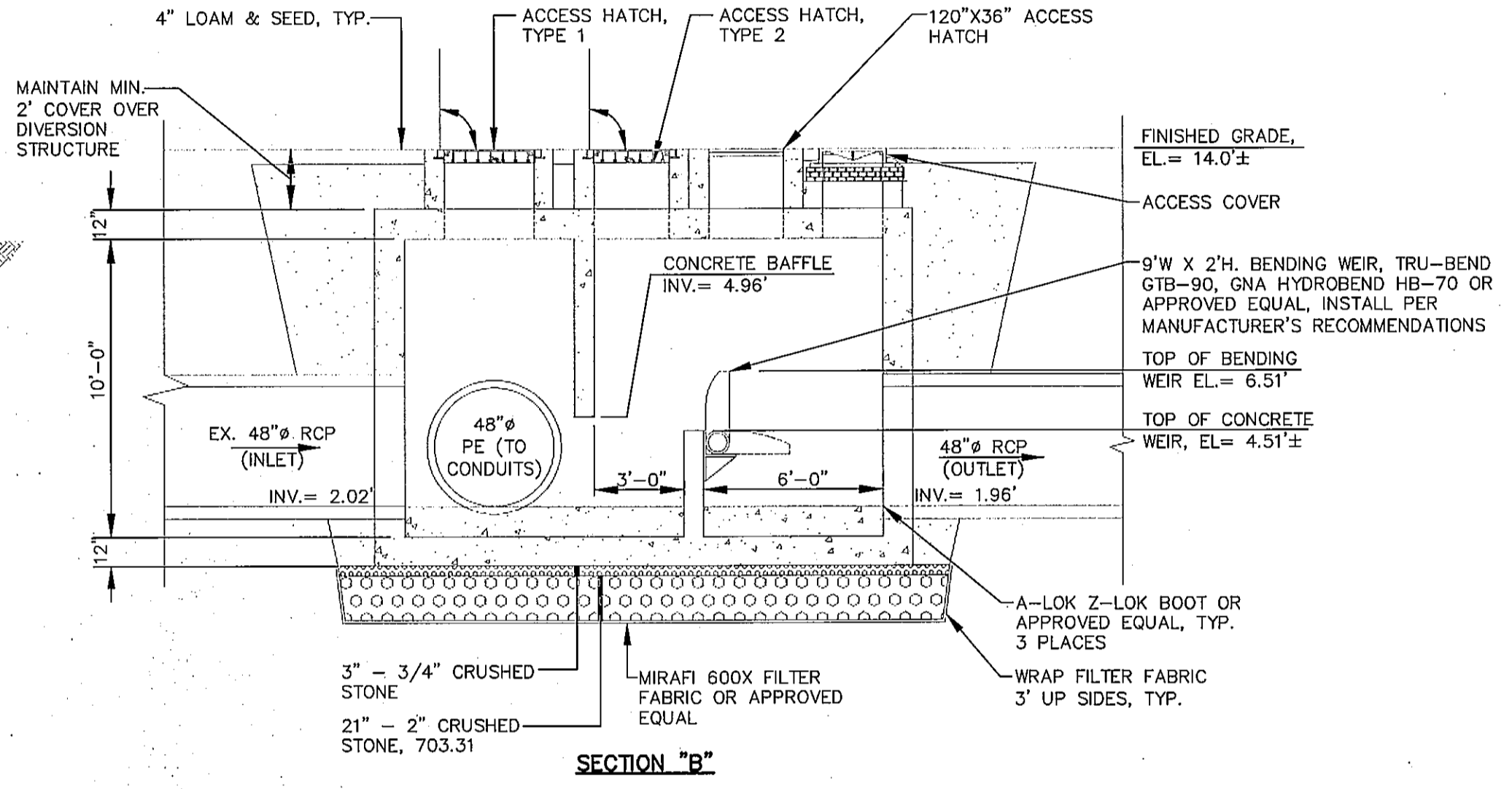
- NOTES - ALL STRUCTURES AND STORAGE CONDUIT:
- CONTRACTOR SHALL USE SMOOTH BUCKET TO EXCAVATE BOTTOM OF TRENCH TO SUBGRADE ELEVATIONS.
 - STORAGE CONDUIT AND STRUCTURES WILL BE WITHIN TIDAL AREAS. CONTRACTOR SHALL BE RESPONSIBLE TO ADDRESS TIDAL CONDITIONS WORK SCHEDULE TIMES, DEWATERING OR OTHER MEANS WORK SCHEDULE TIMES, DEWATERING OR OTHER MEANS INCIDENTAL TO BOX CONDUIT INSTALLATION.
 - SEE PLAN & PROFILE DRAWINGS FOR STORAGE CONDUIT HORIZONTAL ALIGNMENT AND INVERT INFORMATION.
 - EXCAVATION, SHORING, DEWATERING, STONE BEDDING, COMMON BORROW, STRUCTURAL FILL, ROADWAY BASE AND SUBBASE SHALL BE INCIDENTAL TO STORAGE CONDUIT INSTALLATION (REFER TO CONTRACT SPECIFICATIONS).



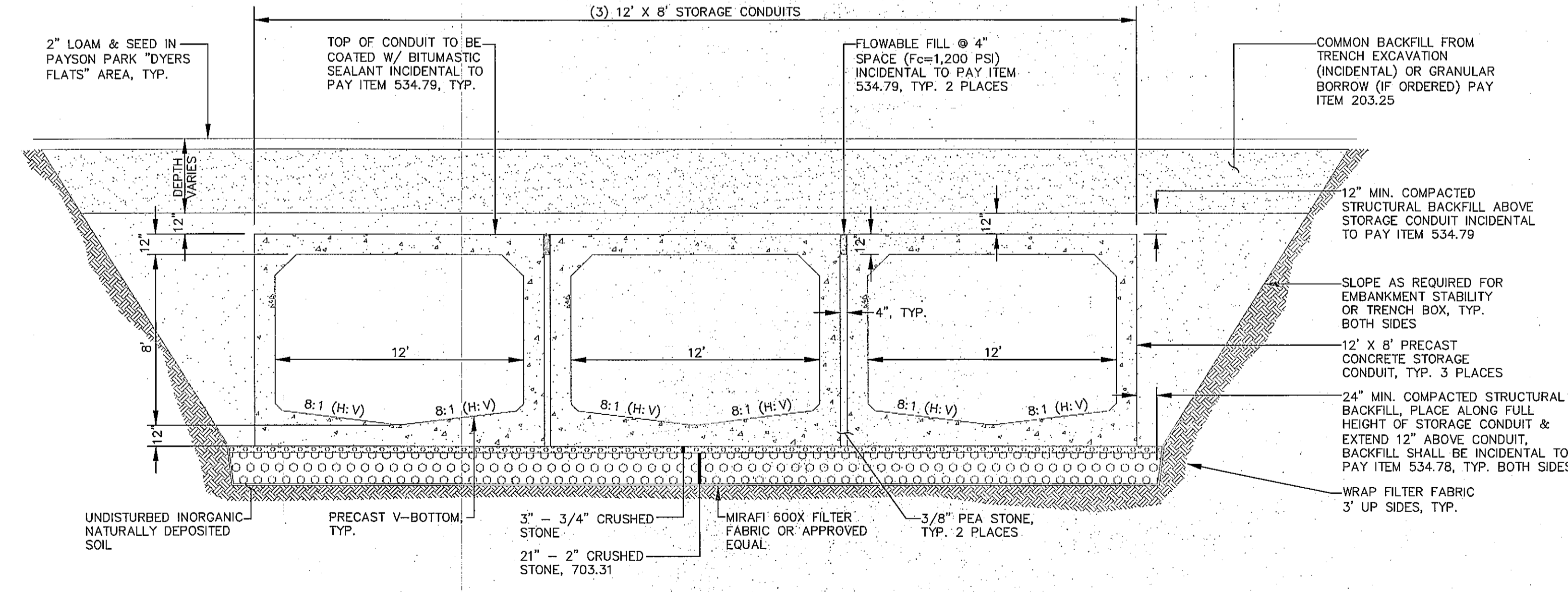
SECTION "A"

CSO-006 DIVERSION STRUCTURE & STORAGE CONDUITS (PAY ITEMS 534.72 & 534.79)

REFER TO CONTRACT SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS

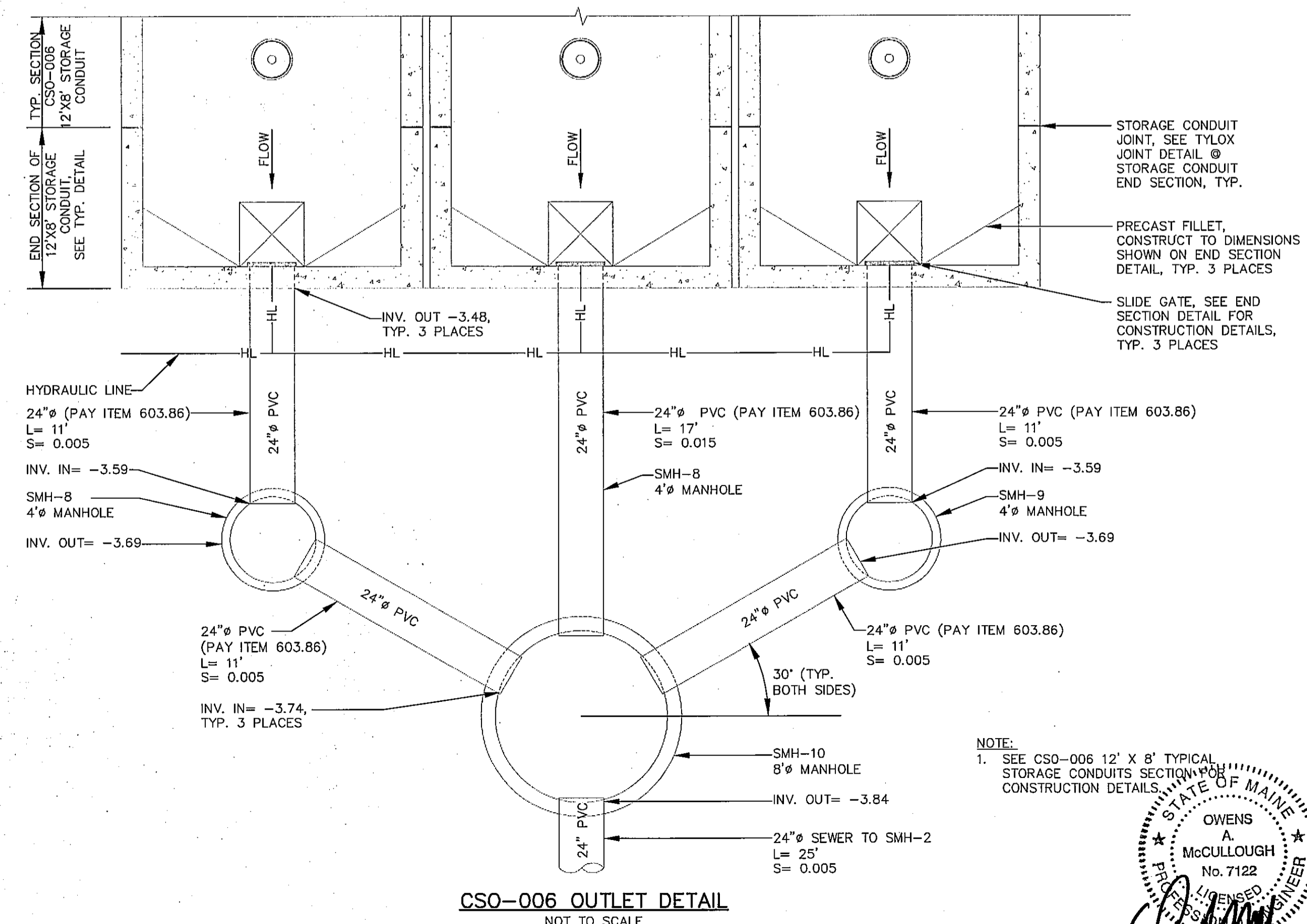


SECTION "B"



TYPICAL SECTION - CSO-006 12' X 8' STORAGE CONDUITS (PAY ITEM 534.79)

REFER TO CONTRACT SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS



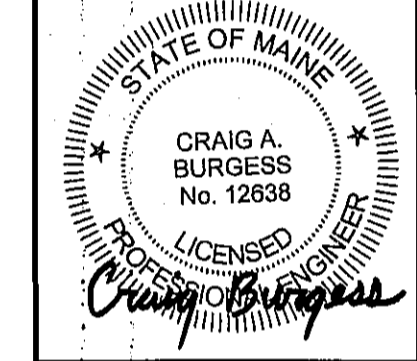
CSO-006 OUTLET DETAIL

NOTE:
1. SEE CSO-006 12' X 8' TYPICAL STORAGE CONDUITS SECTION FOR CONSTRUCTION DETAILS.

LDD PROJECT NAME:
BAXTER BOULEVARD
NORTH STORAGE CONDUIT
DRAWING NAME:
09006D
FIELD BOOK USED:
N/A

REFERENCES:
09006D.dwg, TAB:DETAIL5

DESIGNED BY:
DAM/CAB
DRAWN BY:
CAB
CHECKED BY:
DAM
SCALE:
AS NOTED
DATE:
11-16-2012

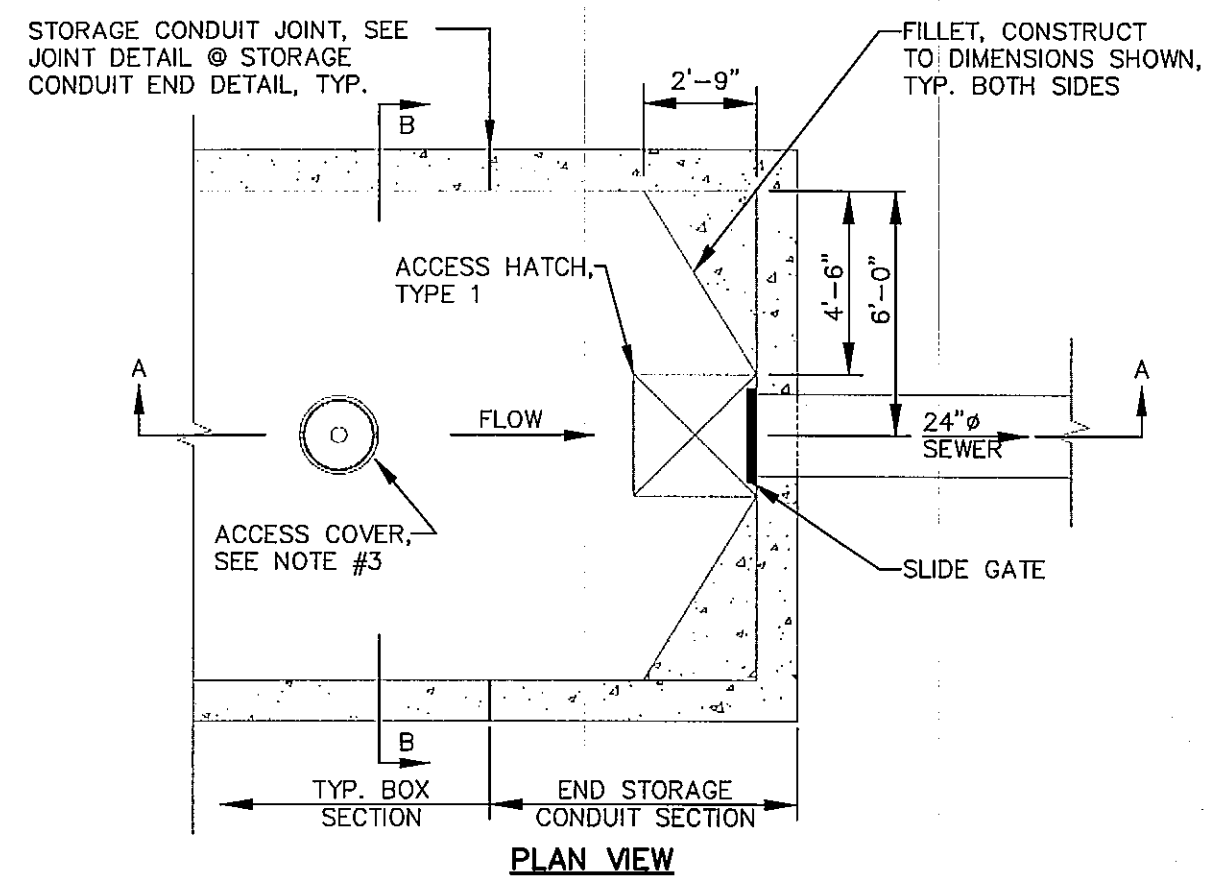


BAXTER BOULEVARD
NORTH STORAGE CONDUIT
STANDARD
CONSTRUCTION DETAILS

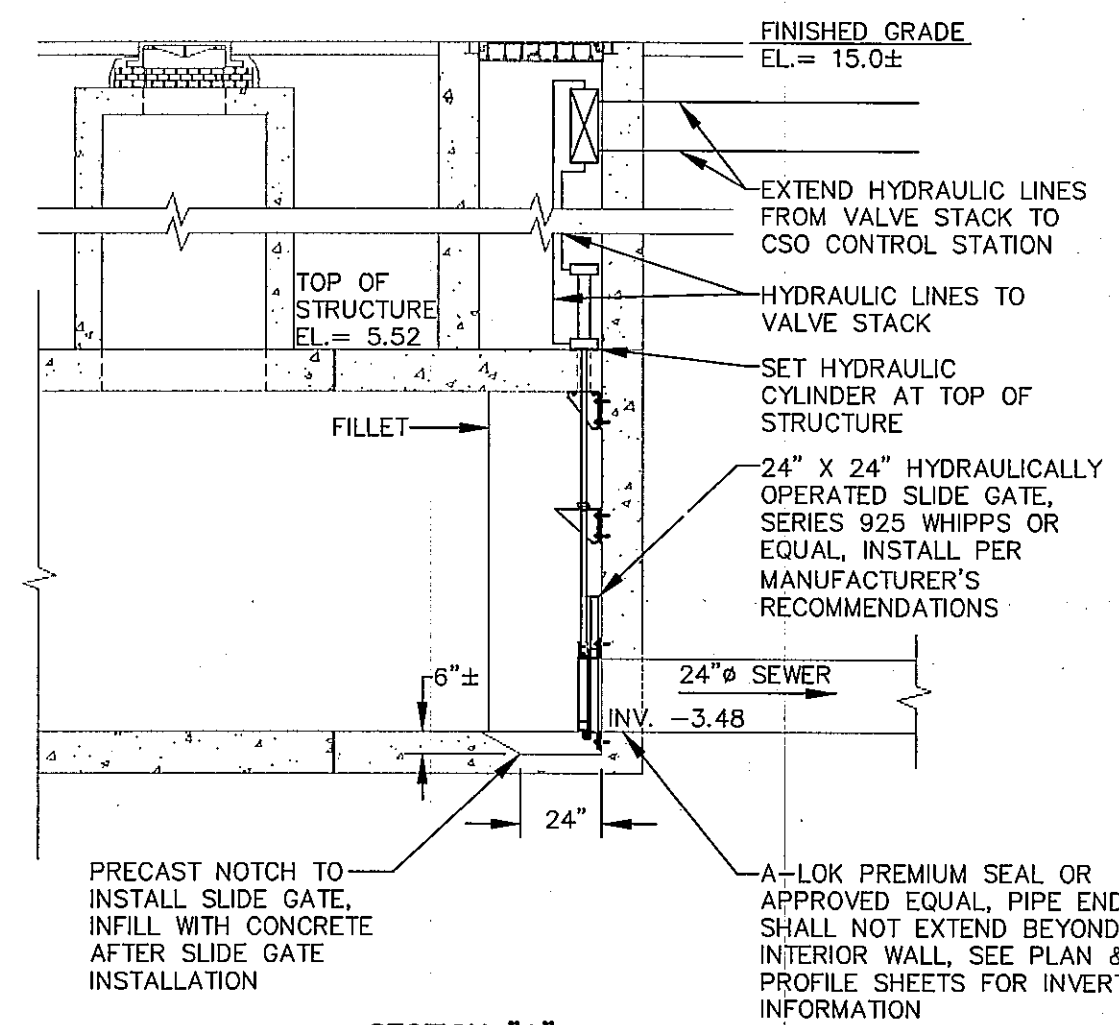
CITY OF PORTLAND, MAINE
PUBLIC SERVICES DEPARTMENT
ENGINEERING DIVISION



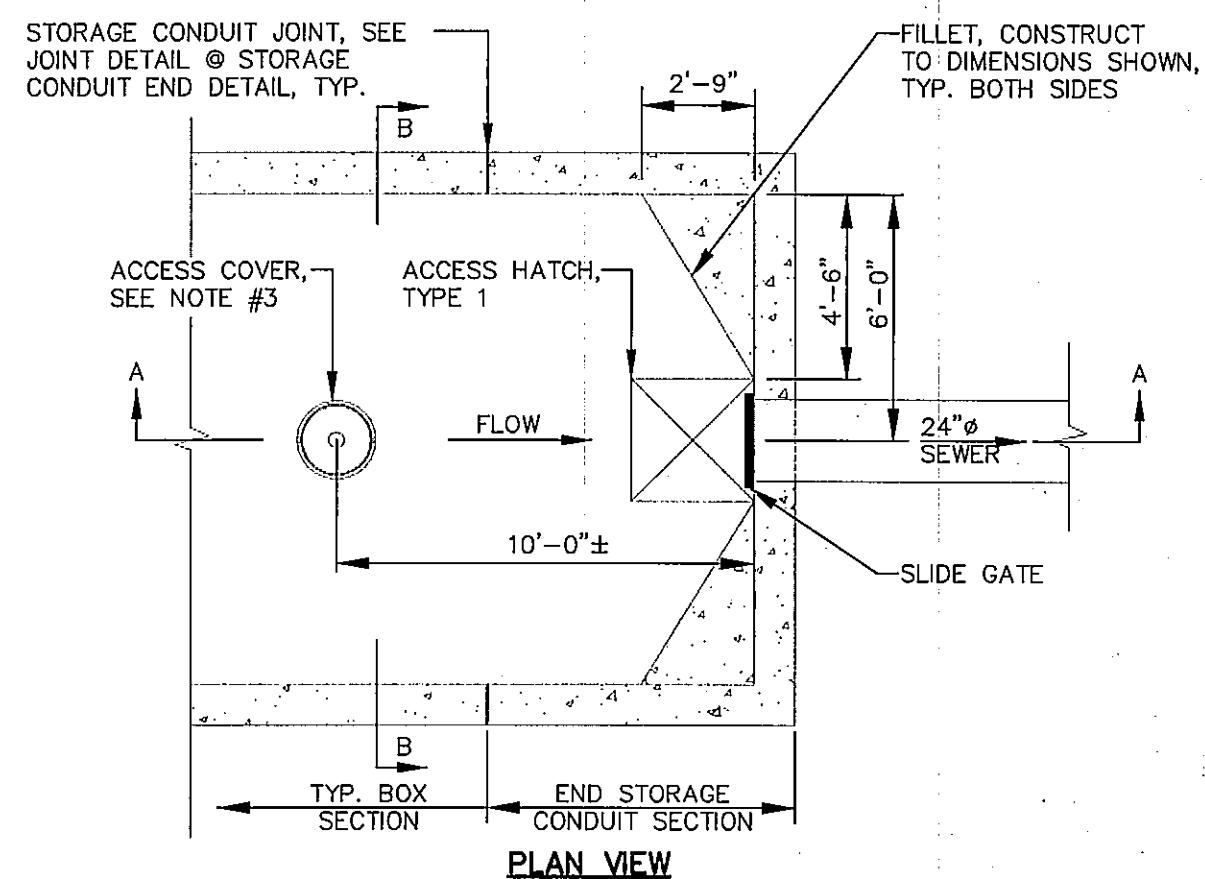
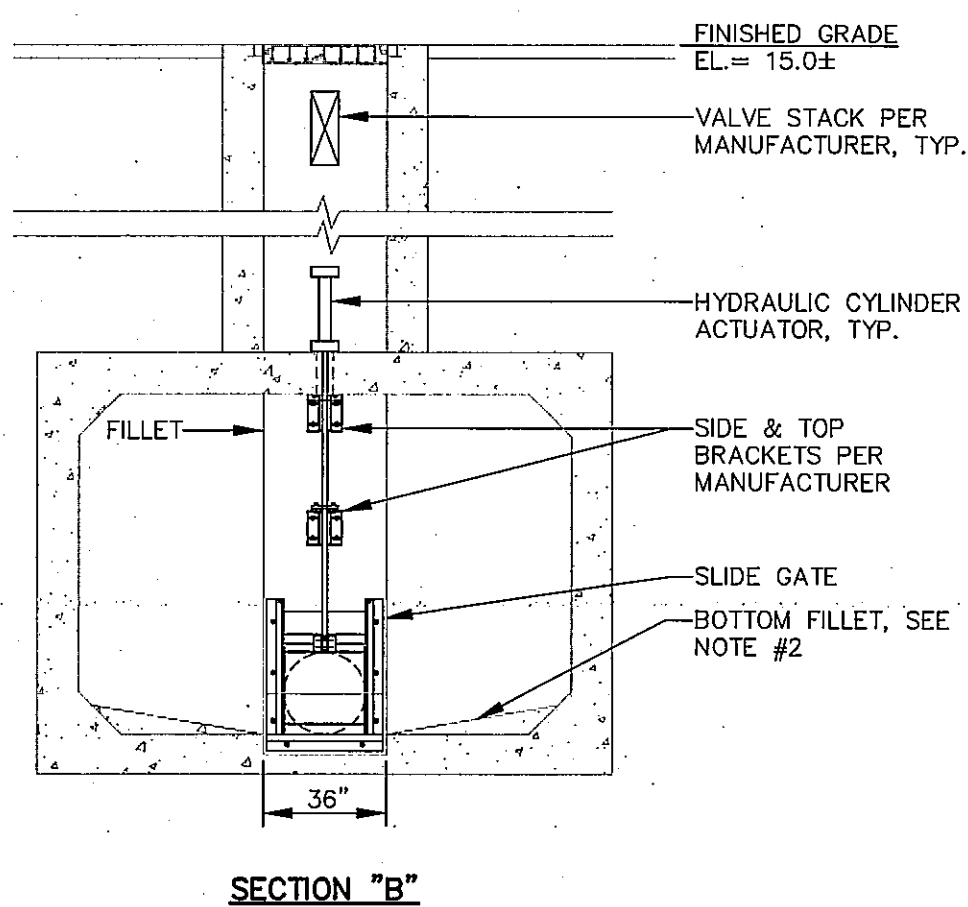
SHEET #
29 OF 54
PLAN NUMBER



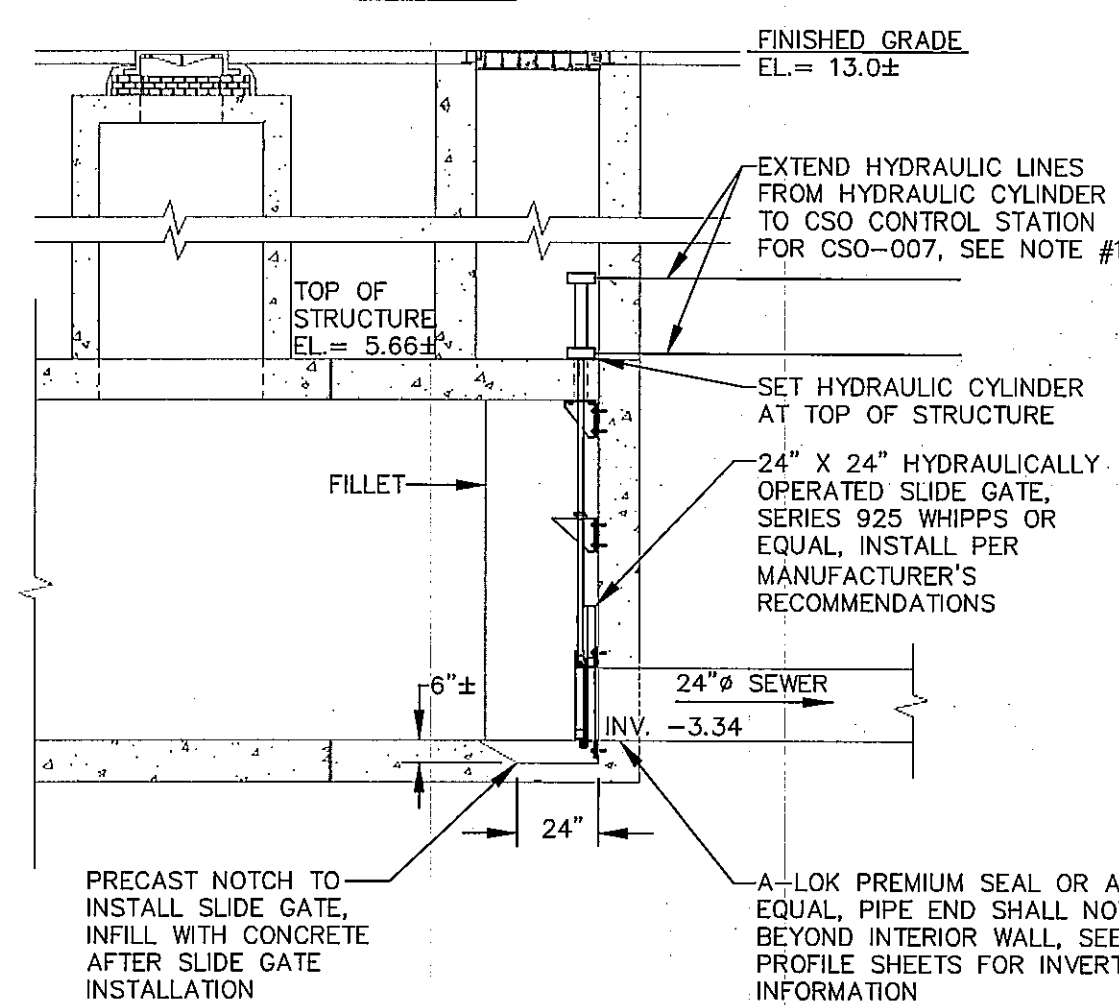
- NOTE:
1. HYDRAULIC LINES SHALL BE EXTENDED FROM THE CONTROL STATION TO VALVE STACKS FOR CSO-006 SLIDE GATES.
 2. BOTTOM FILLET SHALL BE MODIFIED TO ACCOMMODATE SLIDE GATE ASSEMBLY.
 3. INSTALL ACCESS COVER STRUCTURE ON BOX SECTION IMMEDIATELY ADJACENT TO END SECTION.



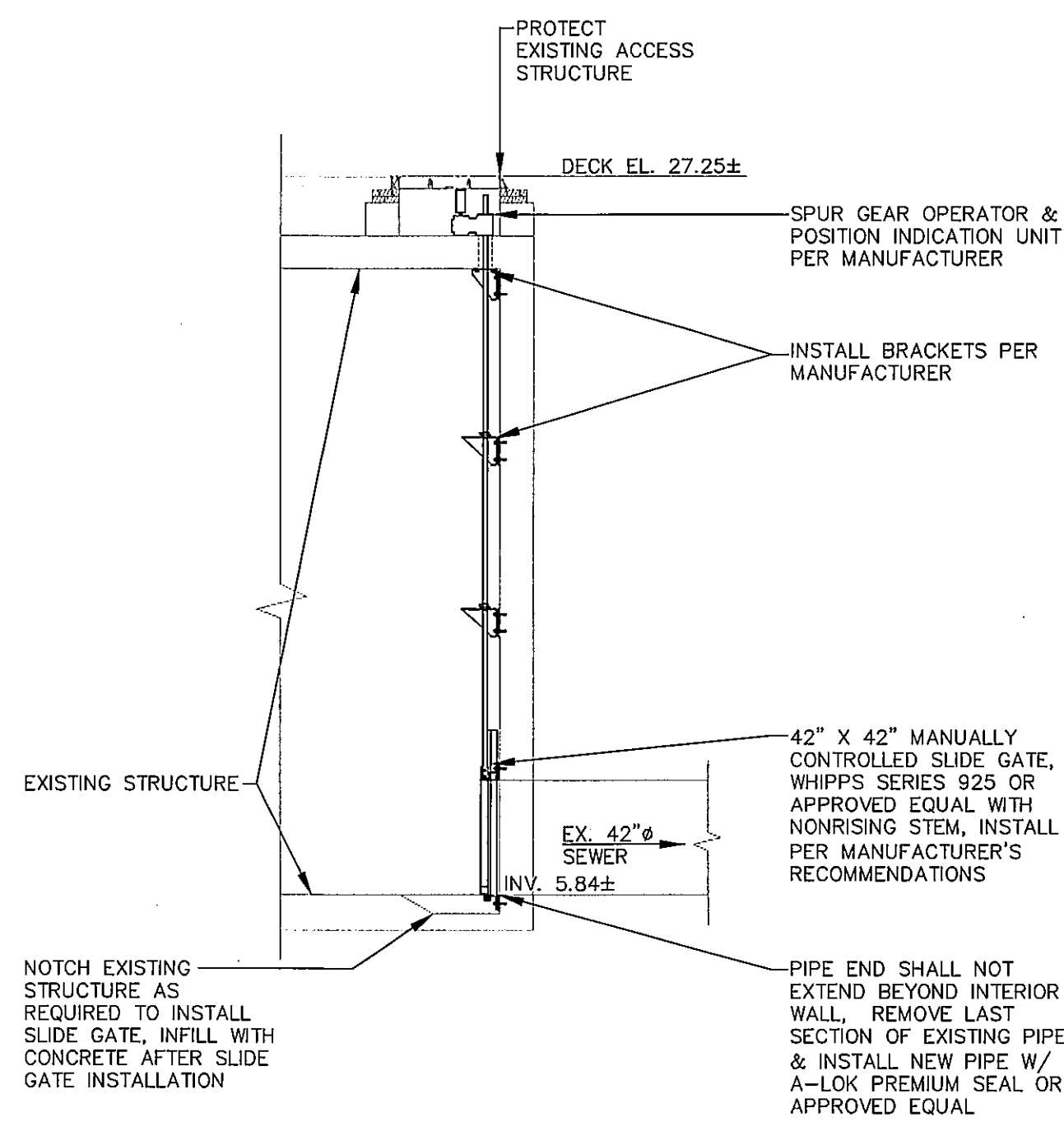
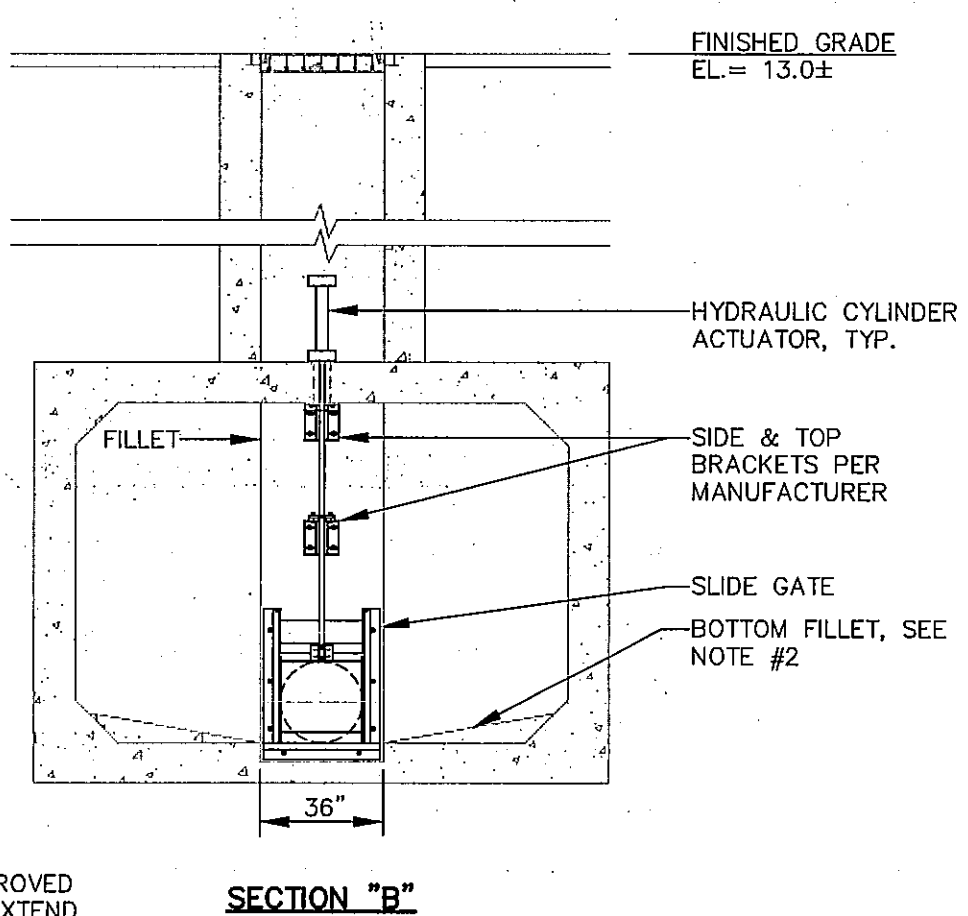
SECTION "A"
CSO-006 END SECTION OF CSO-006 12' X 8' STORAGE CONDUIT
NOT TO SCALE



- NOTE:
1. HYDRAULIC LINES SHALL BE EXTENDED FROM THE CONTROL STATION TO HYDRAULIC CYLINDER FOR CSO-007 SLIDE GATES.
 2. BOTTOM FILLET SHALL BE MODIFIED TO ACCOMMODATE SLIDE GATE ASSEMBLY.
 3. INSTALL ACCESS COVER ON BOX SECTION IMMEDIATELY ADJACENT TO END SECTION.

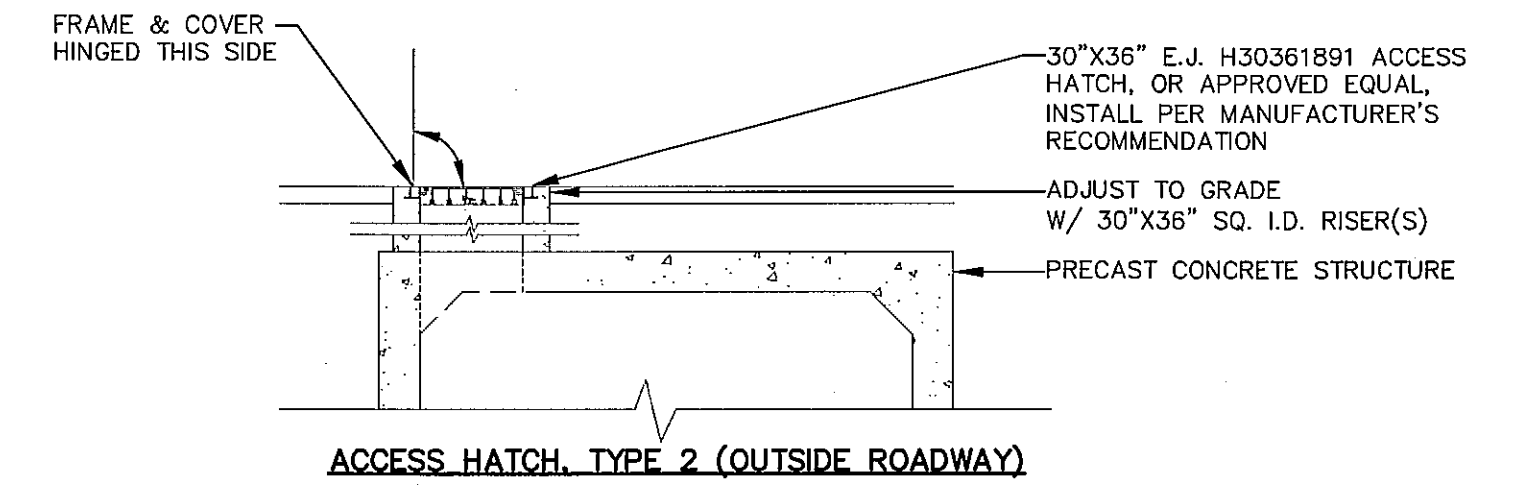
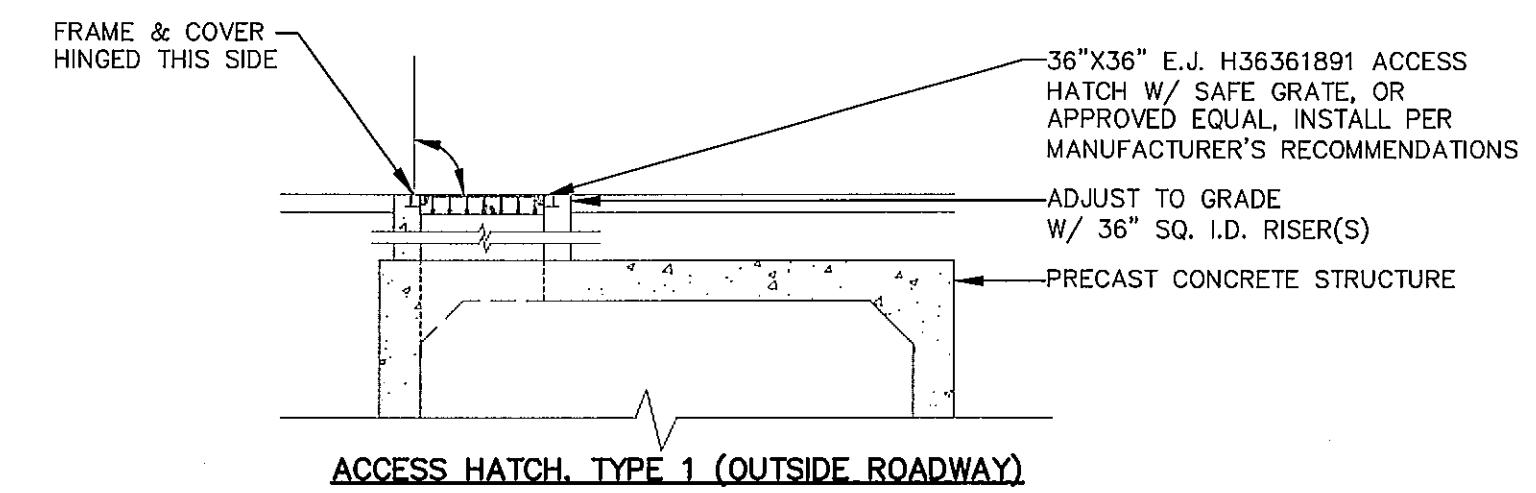


SECTION "A"
END SECTION OF CSO-007 12' X 8' STORAGE CONDUIT
NOT TO SCALE



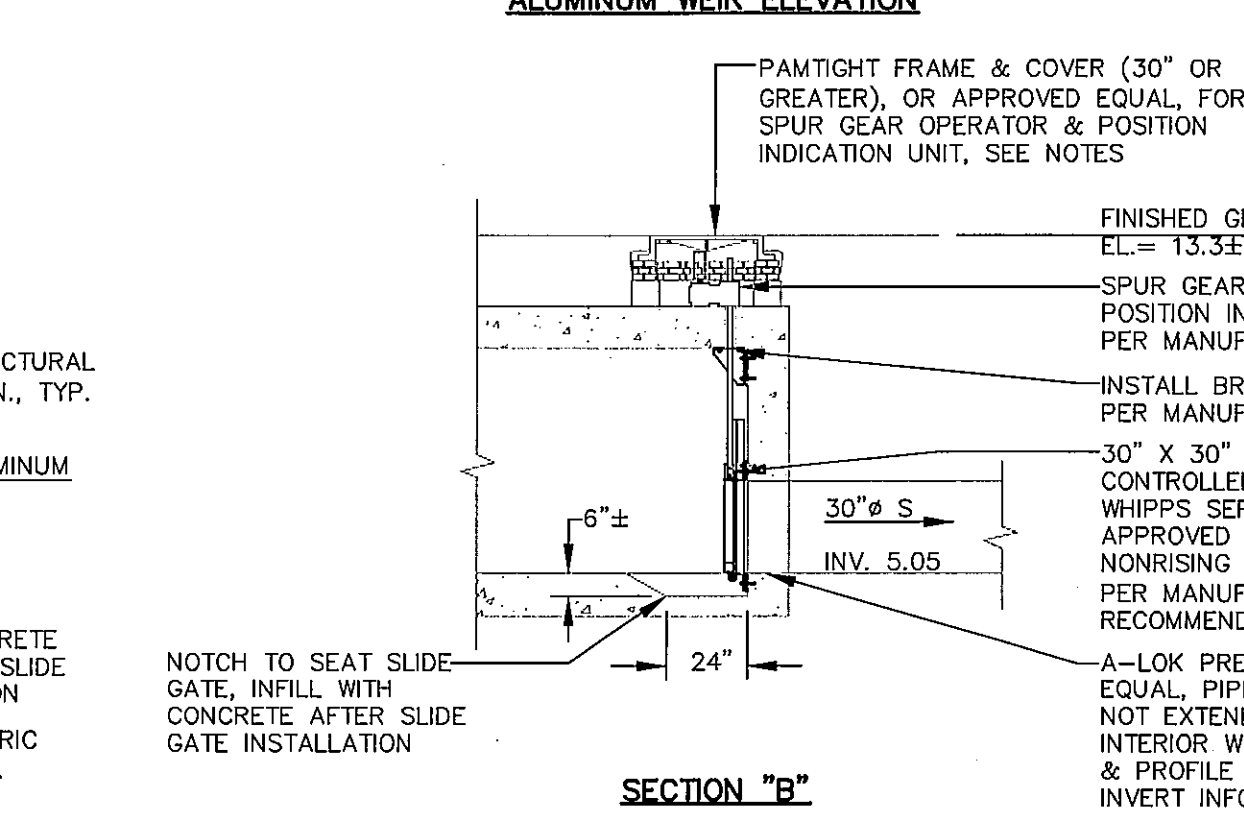
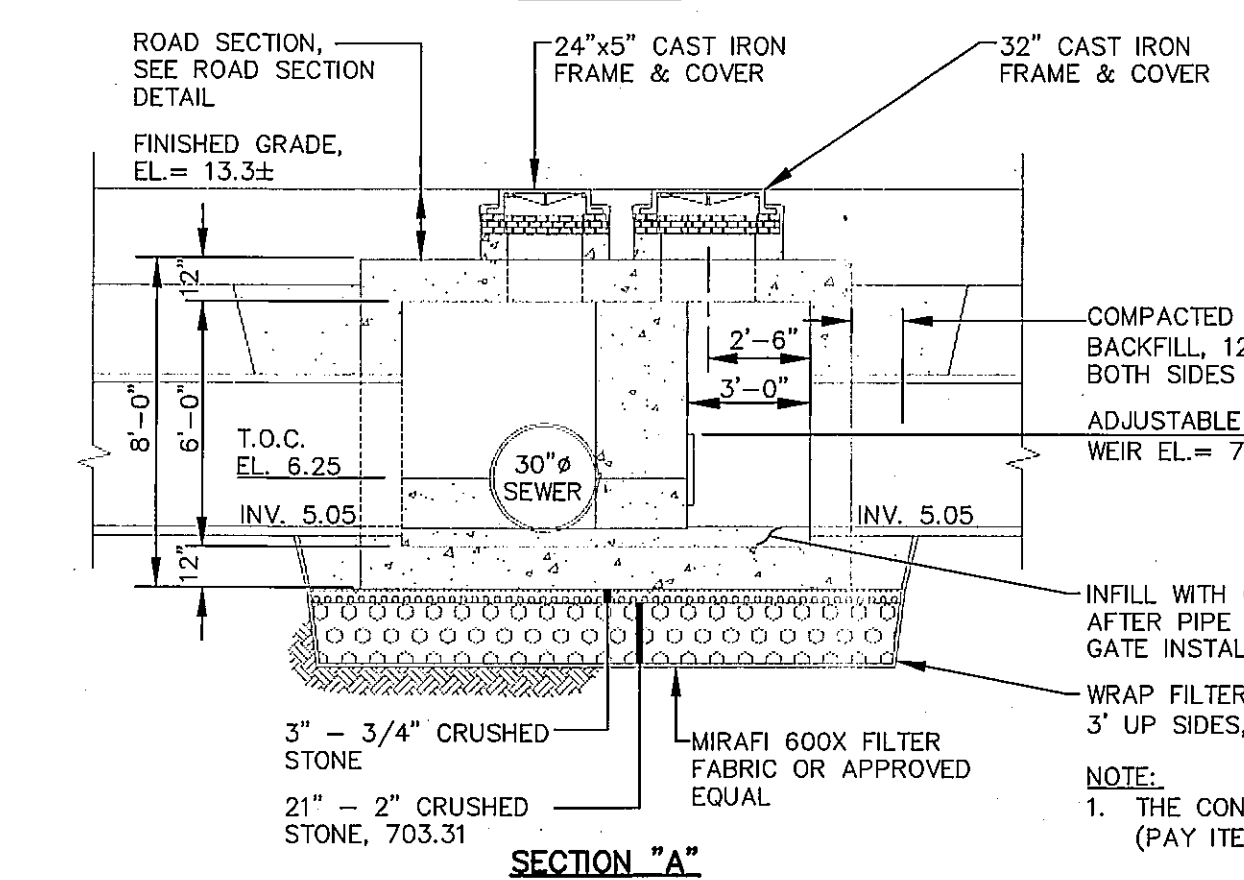
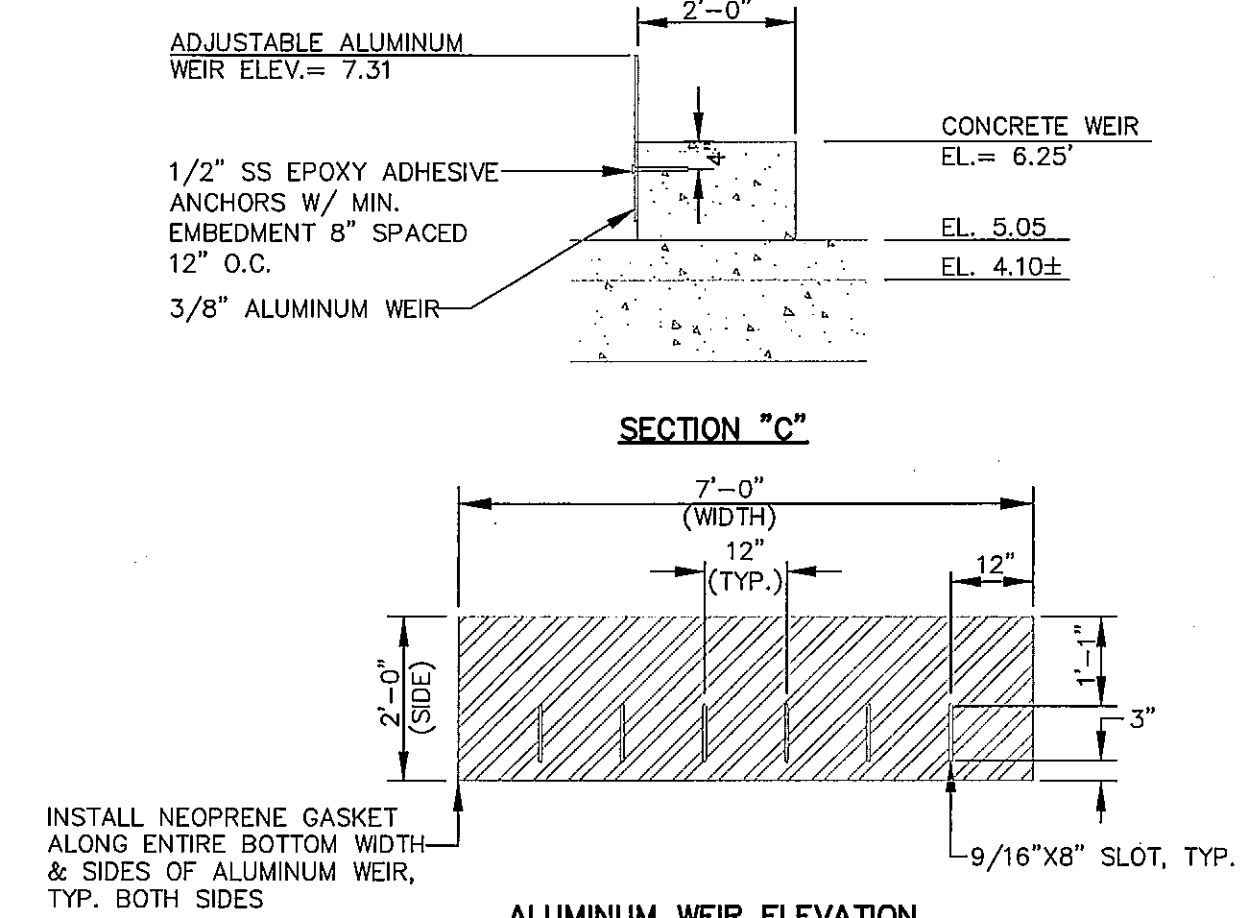
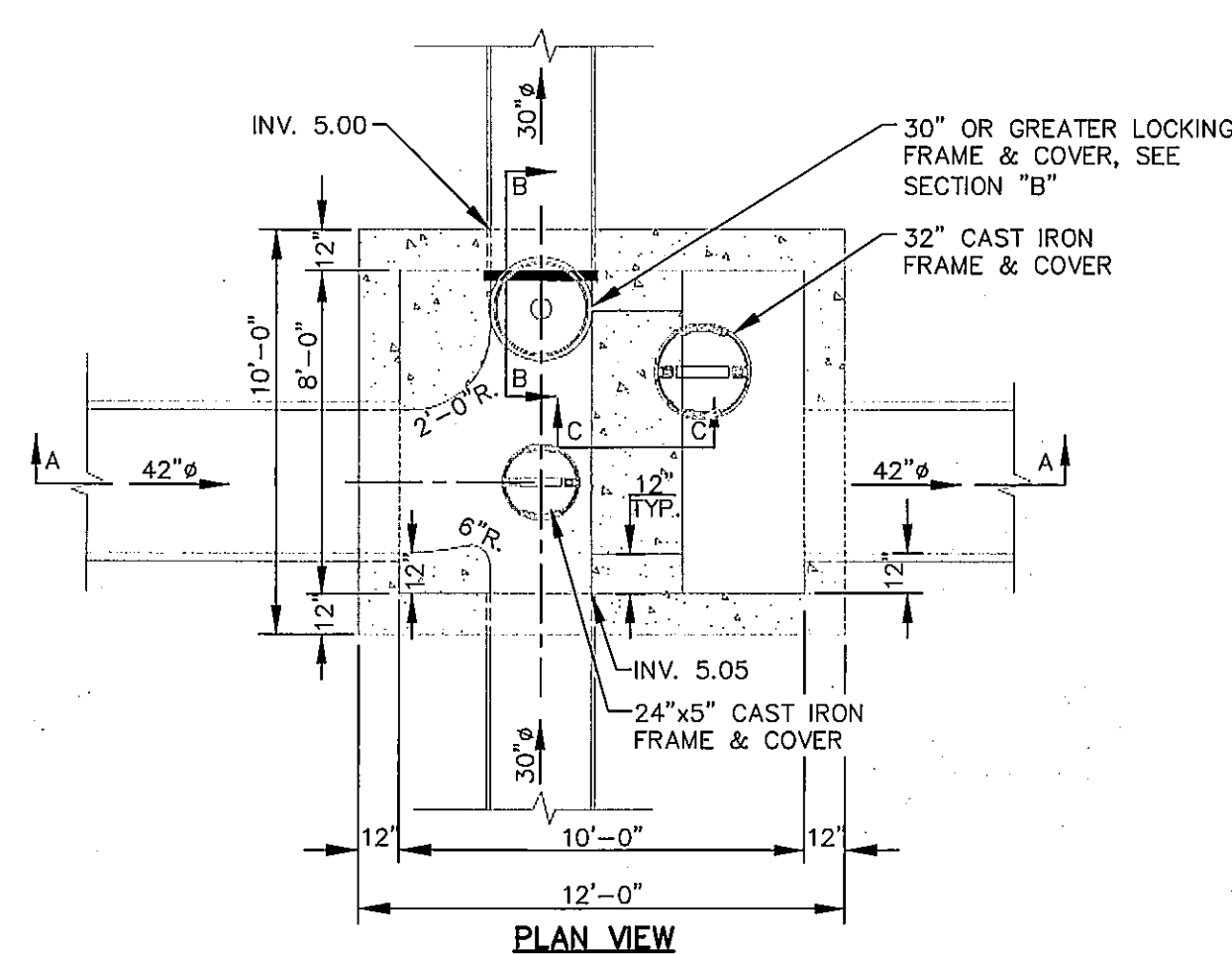
- NOTE:
1. REMOVE AND DISPOSE OF EXISTING SLIDE GATE FROM CSO-007 REGULATOR STRUCTURE (INCIDENTAL).
 2. COORDINATE INSTALLATION OF 42" X 42" MANUALLY CONTROLLED SLIDE GATE WITH CITY REPRESENTATIVE.

CSO-007 -- REGULATOR STRUCTURE (OCEAN AVE.)
NOT TO SCALE



- NOTES:
1. INSTALL HATCH IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

SAFETY HATCH DETAIL
NOT TO SCALE

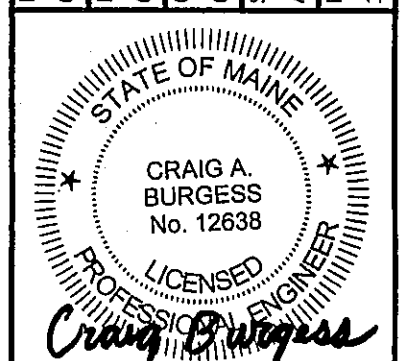


- NOTE:
1. THE CONTRACTOR SHALL USE PVC, PE OR HDPE PIPE FOR THE 30" (PAY ITEM 603.90) AND 42" PIPE (PAY ITEM 603.93).
 2. PROVIDE 30" OR GREATER FRAME AND COVER FOR ACCESS TO MANUAL SLIDE GATE CONTROLS INCLUDING SPUR GEAR OPERATOR & POSITION INDICATION UNIT). FRAME AND COVER SHALL BE LOCKING AND EXCEED H-20 AASHTO LOAD RATING.

CSO-006 -- REGULATOR STRUCTURE (FRONT ST. & JOHANSEN ST. INTERSECTION)
NOT TO SCALE

LDD PROJECT NAME:
BAXTER BOULEVARD
NORTH STORAGE CONDUIT
DRAWING NAME:
09006D
FIELD BOOK USED:
N/A

DESIGNED BY:
DAM/CAB
DRAWN BY:
CAB
CHECKED BY:
DAM
SCALE:
AS NOTED
DATE:
11-15-2012

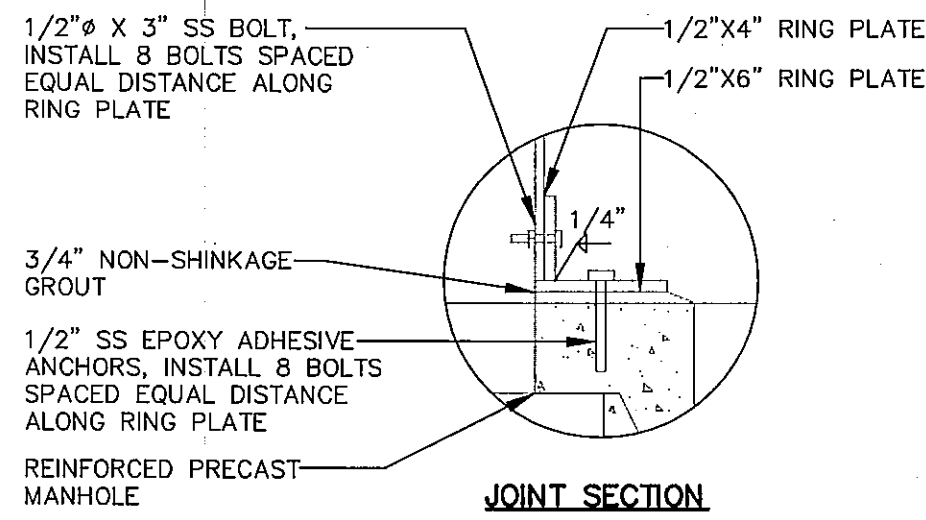


BAXTER BOULEVARD
NORTH STORAGE CONDUIT
STANDARD
CONSTRUCTION DETAILS

CITY OF PORTLAND, MAINE
PUBLIC SERVICES DEPARTMENT
ENGINEERING DIVISION



SHEET #
30 OF 54
PLAN NUMBER



NOTES:
 1. COORDINATE EXTERIOR APPEARANCE OF STACK WITH CITY REPRESENTATIVE TO BEST MATCH LIGHTING STANDARD FOR BAXTER BOULEVARD. SEE FIGURE X-70 OF THE CITY OF THE PORTLAND MUNICIPAL LIGHTING STANDARDS, SECTION X.

- STEEL PIPE SHALL BE 3/8" OR THICKER. EXTERIOR SURFACE SHALL BE ABRASIVE FOR FINISH PAINTS.
- LINE PIPE INTERIOR WITH PVC, ALUMINUM OR GALVANIZED IRON. APPLY EPOXY FINISH COAT TO ALUMINUM OR GALVANIZED IRON.
- APPLY ONE (1) FINISH COAT OF CUSTOM PAINT TO THE ENTIRE EXTERIOR SURFACE OF THE VENT STACK. COORDINATE PAINT TYPE, FINISH & COLOR WITH CITY REPRESENTATIVE.
- ALL WELDING SHALL CONFORM TO AWS CODE AND SHALL BE PERFORMED BY CERTIFIED WELDERS.
- INSTALL L-BRACKET AS ALTERNATE TO WELDED RINGS SHOWN IN JOINT SECTION DETAIL.
- INFILL MANHOLE TO PIPE INVERT WITH CONCRETE OR CRUSHED ROCK.

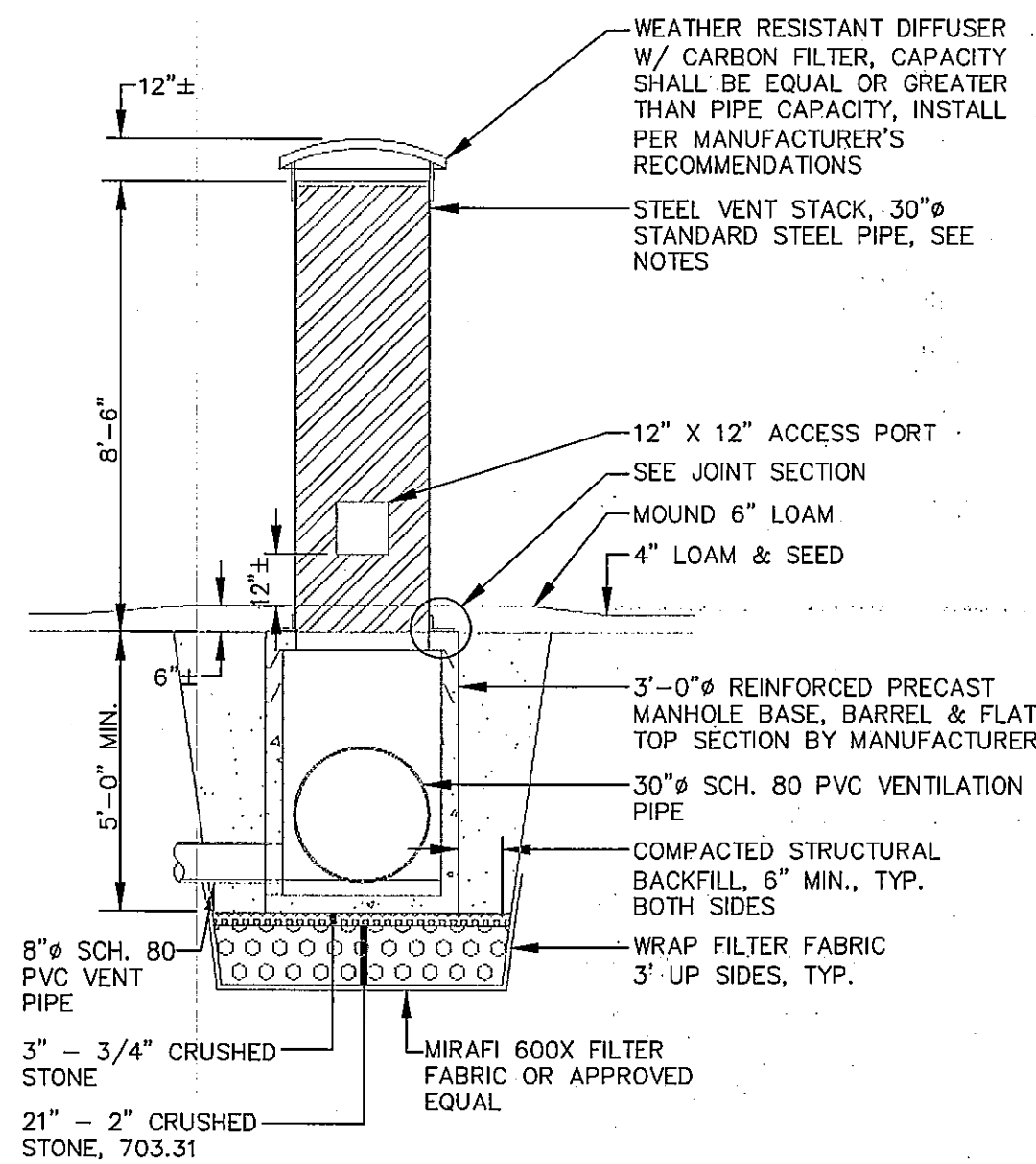
PLANTING REQUIREMENTS:
CSO-007 VENTILATION STACK #1
 PLANT THE FOLLOWING PLANTS IN ALTERNATING FASHION IN FRONT OF STACK AND FACING BAXTER BOULEVARD:

- FIVE (5) PV / PANICUM VIRGATUM 'NORTHWIND' / SWITCH GRASS / #2
- FIVE (5) CA / CLETHERA ALNIFOLIA / SWEET PEPPERBUSH (SUMMERSWEET) / #5

CSO-007 VENTILATION STACK #2
 PLANT THE FOLLOWING PLANTS IN ALTERNATING FASHION IN FRONT OF STACK AND FACING BAXTER BOULEVARD:

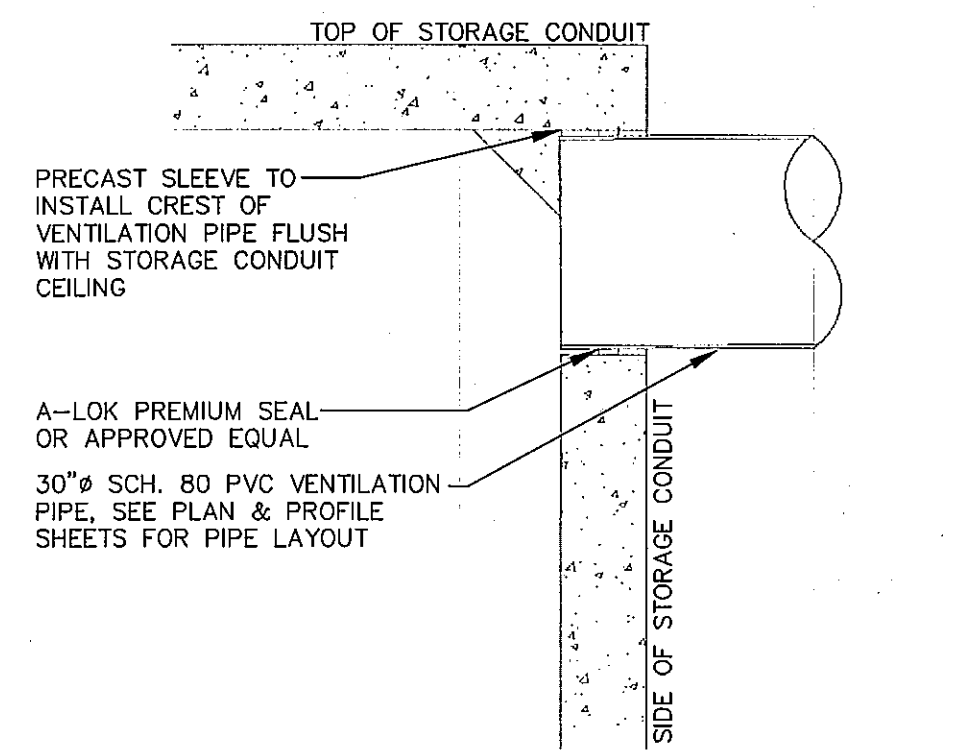
- SIX (6) PV / PANICUM VIRGATUM 'NORTHWIND' / SWITCH GRASS / #2
- EIGHT (8) CA / CLETHERA ALNIFOLIA / SWEET PEPPERBUSH (SUMMERSWEET) / #5

9. CONTRACTOR SHALL SUBMIT SHOP DRAWING FOR APPROVAL.

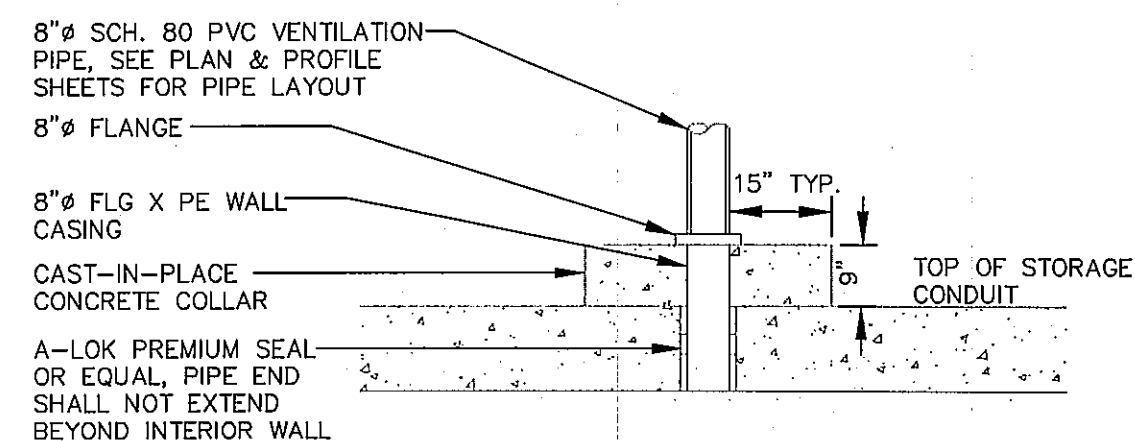


VENTILATION STACK (PAY ITEMS 673.10 & 673.20)

NOT TO SCALE



CSO-006 & CSO-007 30\"/>

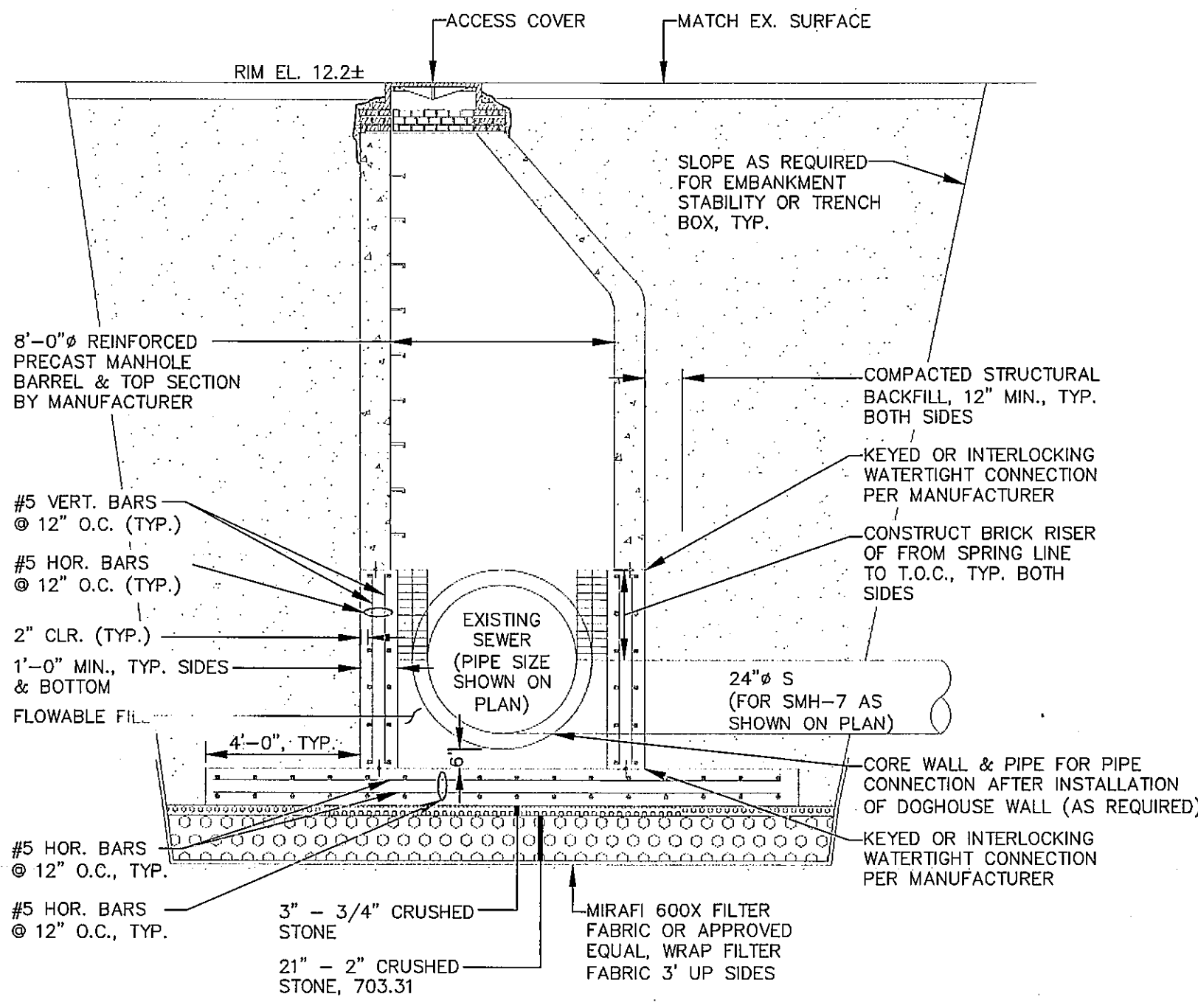


CSO-006. STORAGE CONDUIT "A" & "B" - 8\"/>

- NOTES:**
- INSTALL PIPE IN ACCORDANCE WITH TYPICAL PIPE INSTALLATION DETAIL.
 - INSTALL VENTILATION PIPE WITH POSITIVE SLOPE (0.0025' / MIN.) TO DIRECT DRAINAGE TOWARD STORAGE CONDUIT.
 - 90° BENDS FOR 8" SCH. 80 PVC VENTILATION PIPE SHALL HAVE MINIMUM 4' OF COVER.

VENTILATION CONNECTION DETAIL

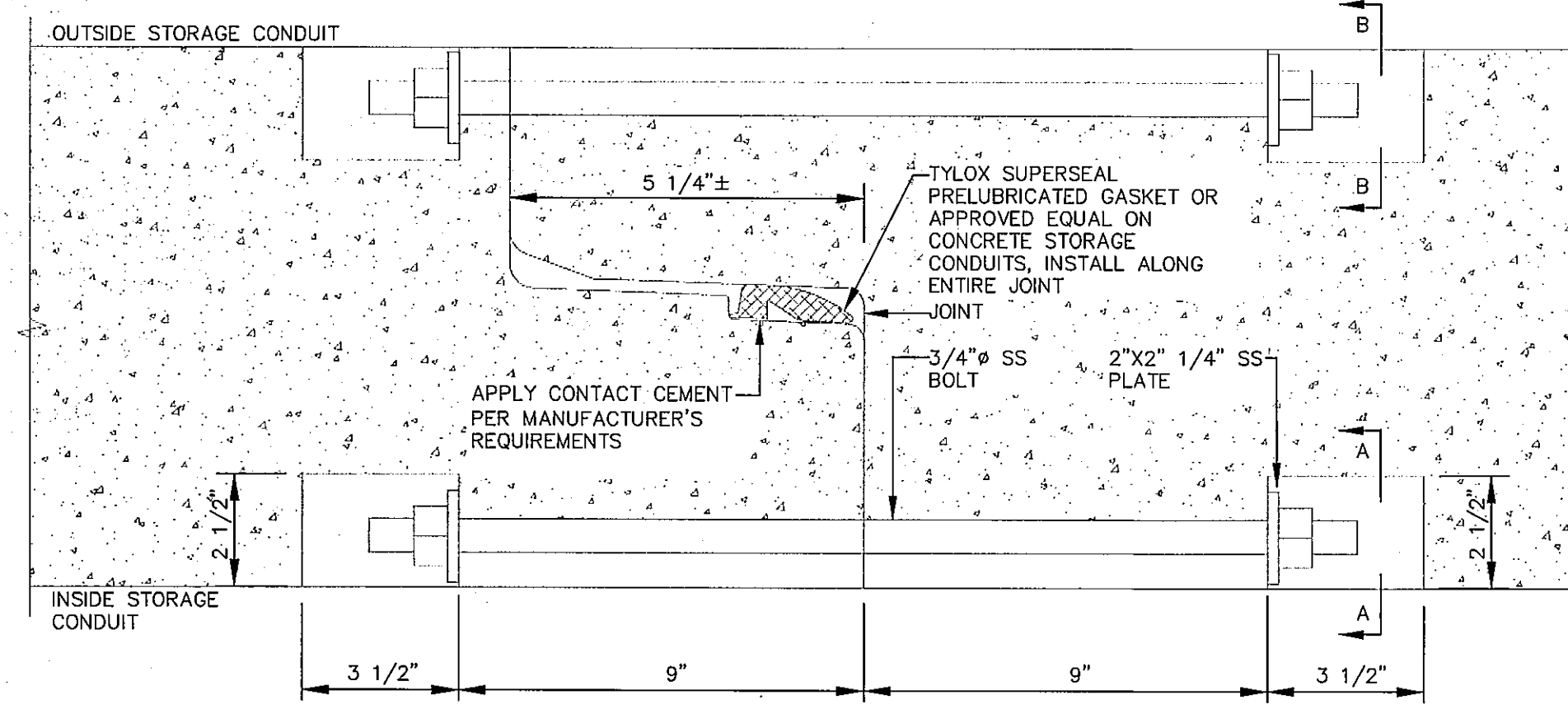
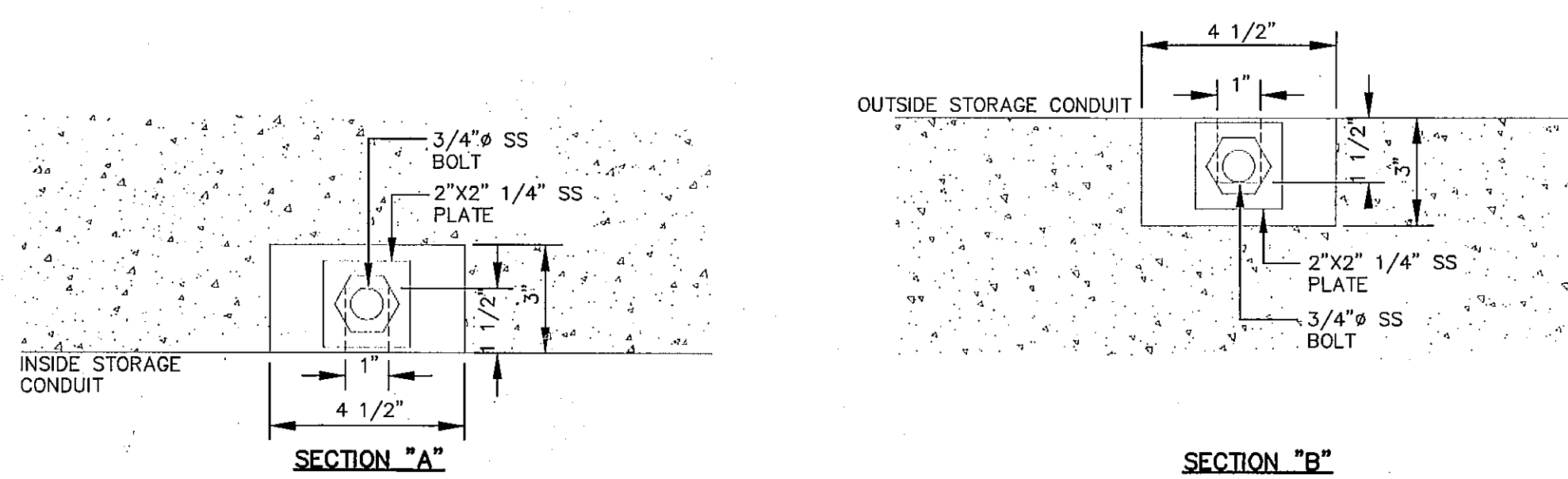
NOT TO SCALE



- NOTES:**
- CONTRACTOR SHALL SUBMIT SHOP DRAWING FOR APPROVAL.
 - INSTALL 8" PRECAST MANHOLE REINFORCED PRECAST MANHOLE IN LIEU OF DOGHOUSE SECTION UPON APPROVAL BY CITY REPRESENTATIVE.

SEWER MANHOLE DOGHOUSE STRUCTURE

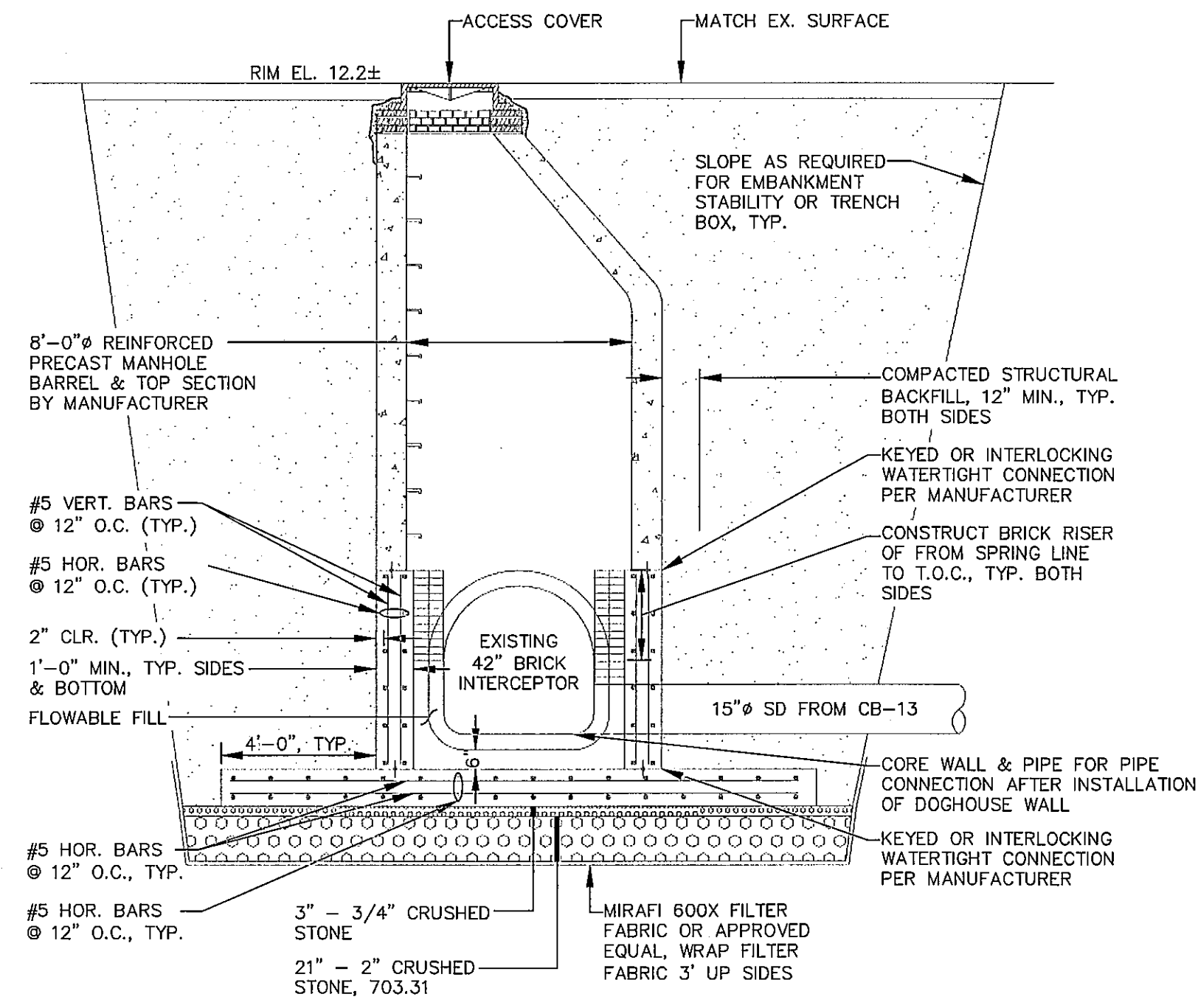
NOT TO SCALE



- NOTES:**
- TYLOX SUPERSEAL GASKET AND BOLTS SHALL BE INCIDENTAL TO STORAGE CONDUIT INSTALLATION (PAY ITEMS 534.78 AND 534.79).
 - A TOTAL OF FOUR (4) BOLTS SHALL BE INSTALLED AT JOINTS INSIDE BOX CULVERT; TWO (2) ON FLOOR AND TWO (2) ON WALLS. TWO (2) BOLTS SHALL BE INSTALLED AT JOINTS ON CEILING OUTSIDE STORAGE CONDUIT. LOCATE WALL BOLTS HALFWAY IN CULVERT. MAINTAIN 6 FEET HORIZONTAL SEPARATION BETWEEN BOLTS ON FLOOR INSIDE STORAGE CONDUIT AND CEILING OUTSIDE STORAGE CONDUIT.
 - BOLTS SHALL REMAIN IN PLACE AND THE VOID SPACE FILLED WITH GROUT. APPLY EPOXY FINISH COAT OVER GROUT FOR A SMOOTH SURFACE FINISH. GROUT AND EPOXY WORK SHALL BE COMPLETED PRIOR TO JOINT TESTING.
 - CONTRACTOR TO SUBMIT SHOP DRAWING FOR APPROVAL.

JOINT DETAIL @ STORAGE CONDUIT DETAIL

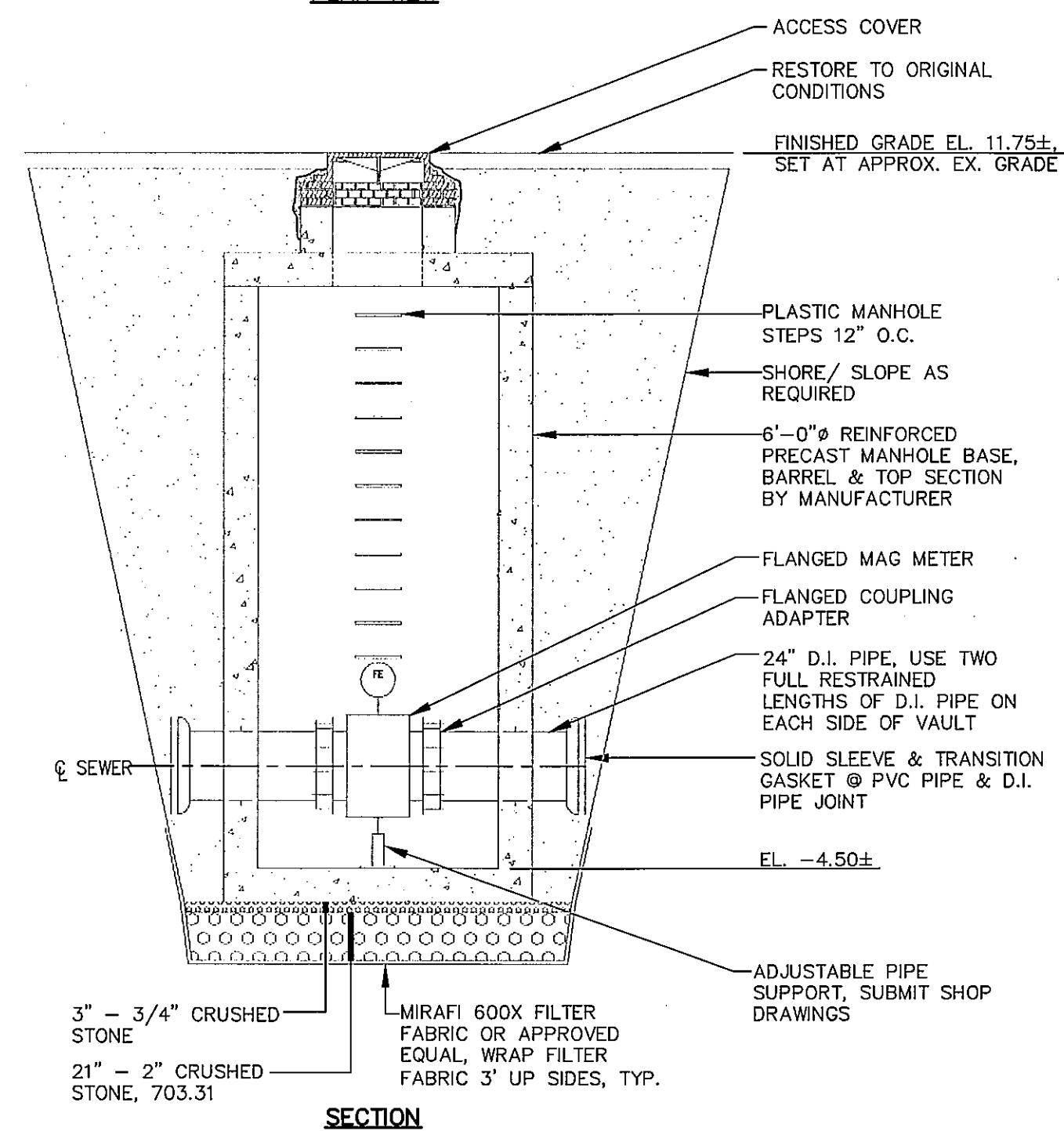
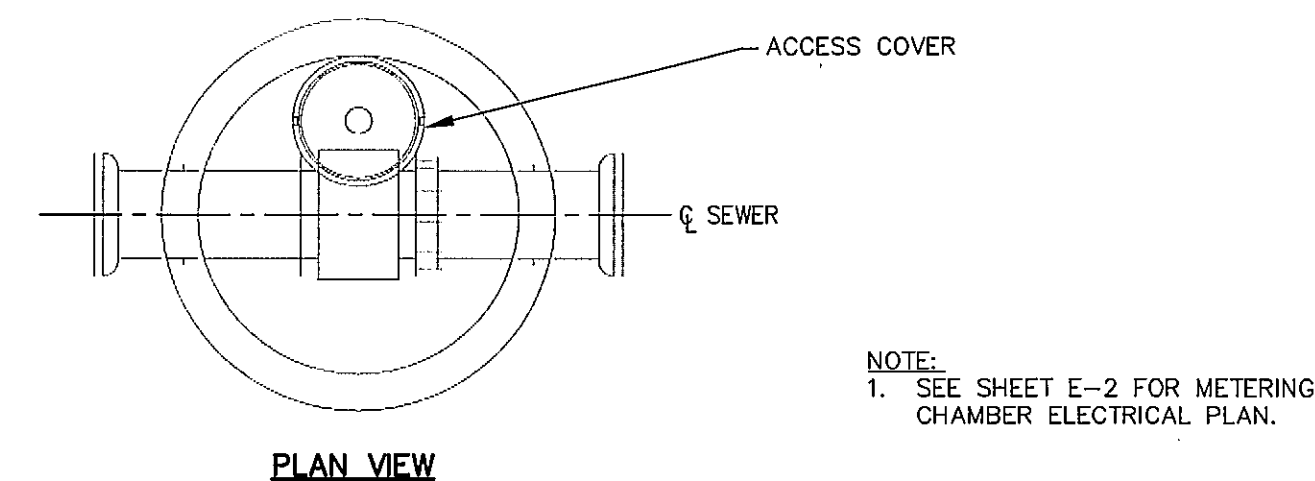
NOT TO SCALE



- NOTES:**
- CONTRACTOR SHALL SUBMIT SHOP DRAWING FOR APPROVAL.
 - INSTALL 8" PRECAST MANHOLE REINFORCED PRECAST MANHOLE IN LIEU OF DOGHOUSE SECTION UPON APPROVAL BY CITY REPRESENTATIVE.

DRAIN MANHOLE #4 (DMH-4) DOGHOUSE STRUCTURE

NOT TO SCALE



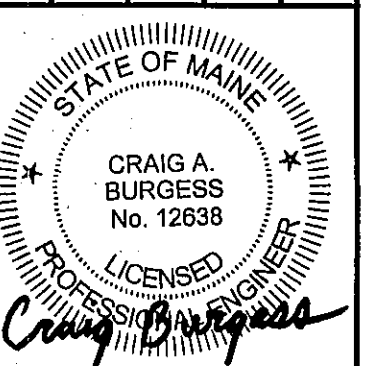
METERING CHAMBER (PAY ITEM 604.153)

NOT TO SCALE

LDD PROJECT NAME:
 BAXTER BOULEVARD
 NORTH STORAGE CONDUIT
 DRAWING NAME:
 090060
 FIELD BOOK USED:
 N/A

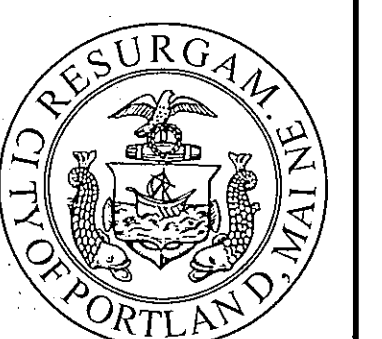
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 090060.dwg, TAB:DETAIL7

DESIGNED BY:
 DRAWN BY:
 CHECKED BY:
 SCALE:
 AS NOTED
 DATE:
 11-16-2012



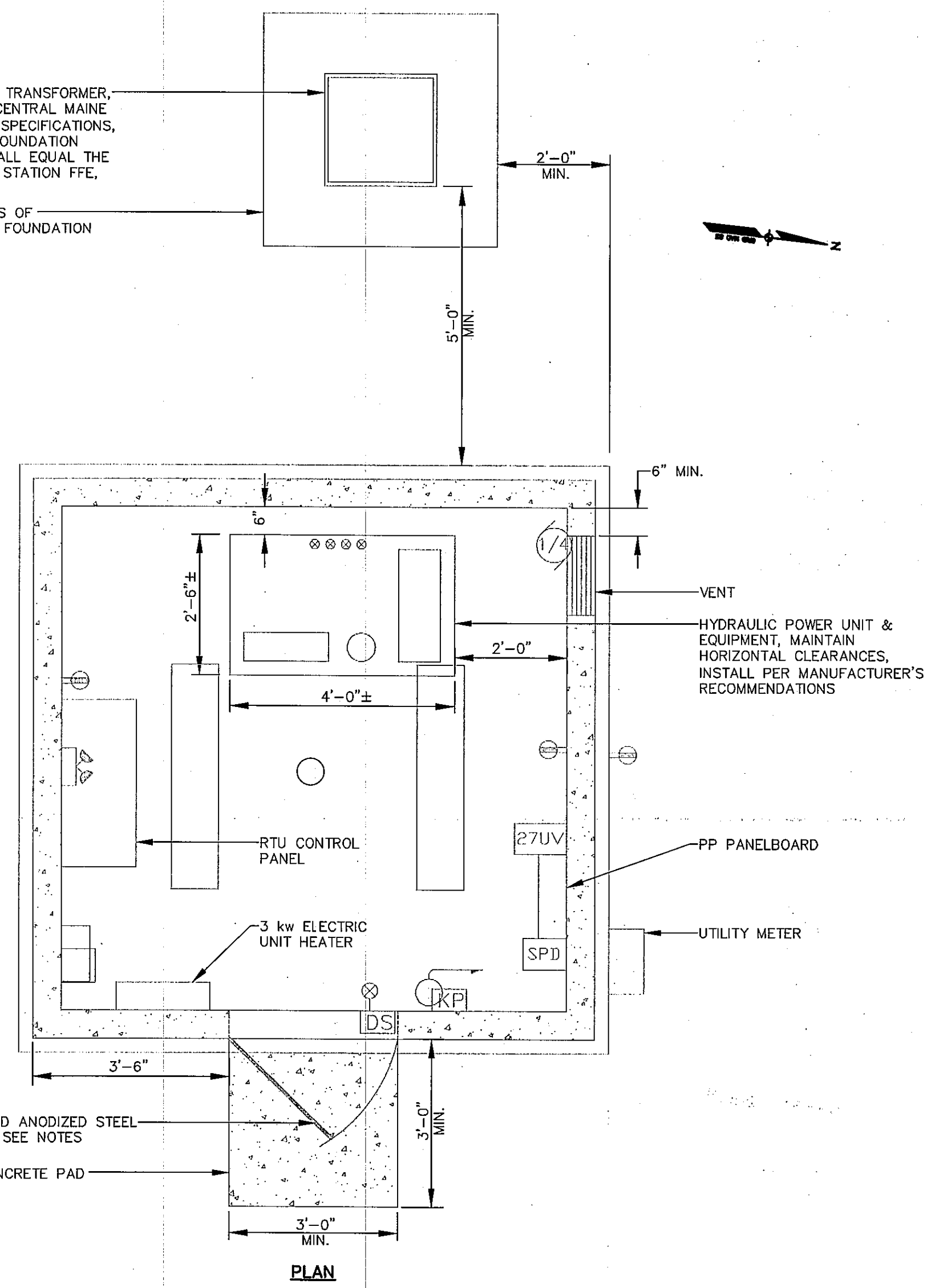
**BAXTER BOULEVARD
 NORTH STORAGE CONDUIT
 STANDARD
 CONSTRUCTION DETAILS**

**CITY OF PORTLAND, MAINE
 PUBLIC SERVICES DEPARTMENT
 ENGINEERING DIVISION**

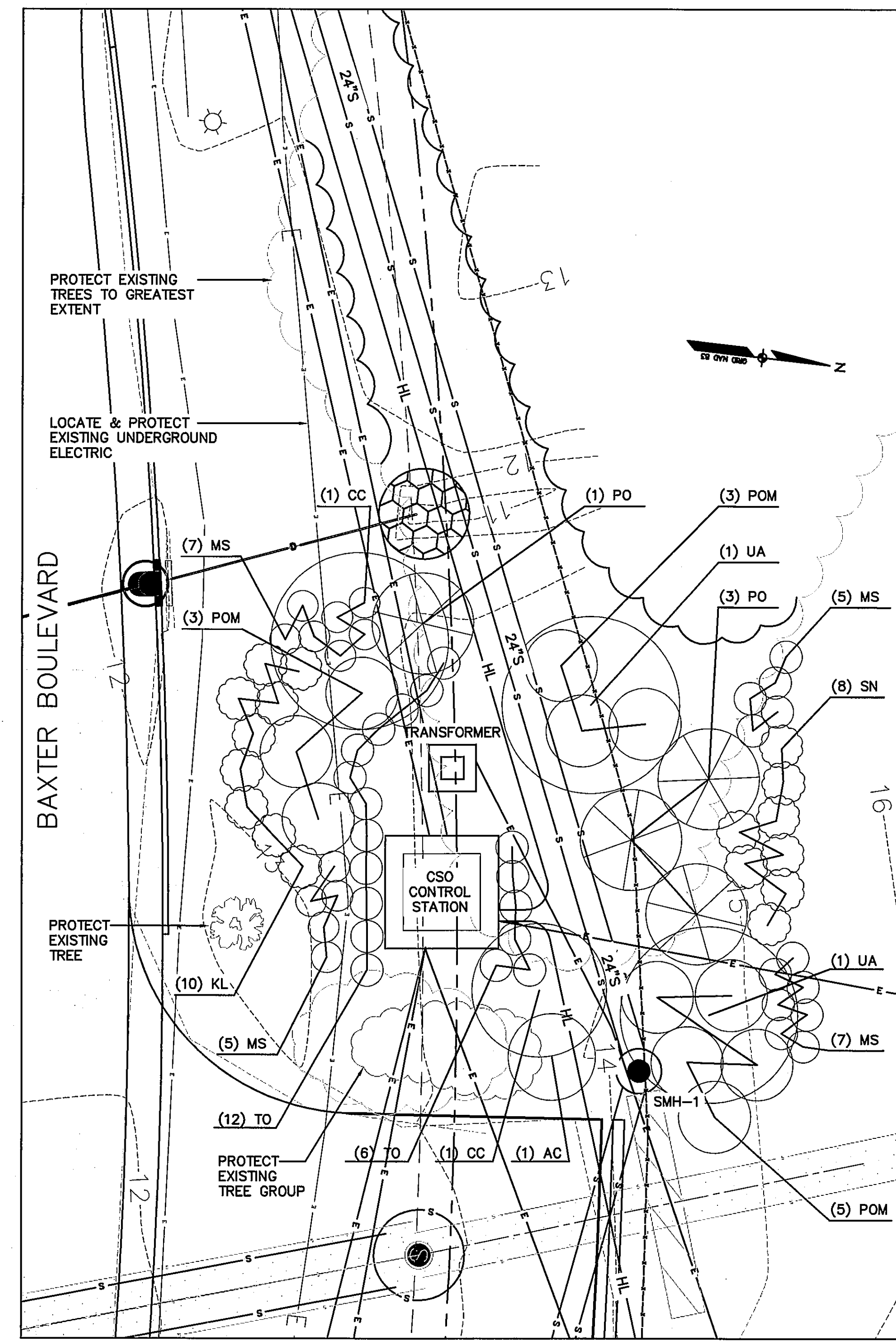
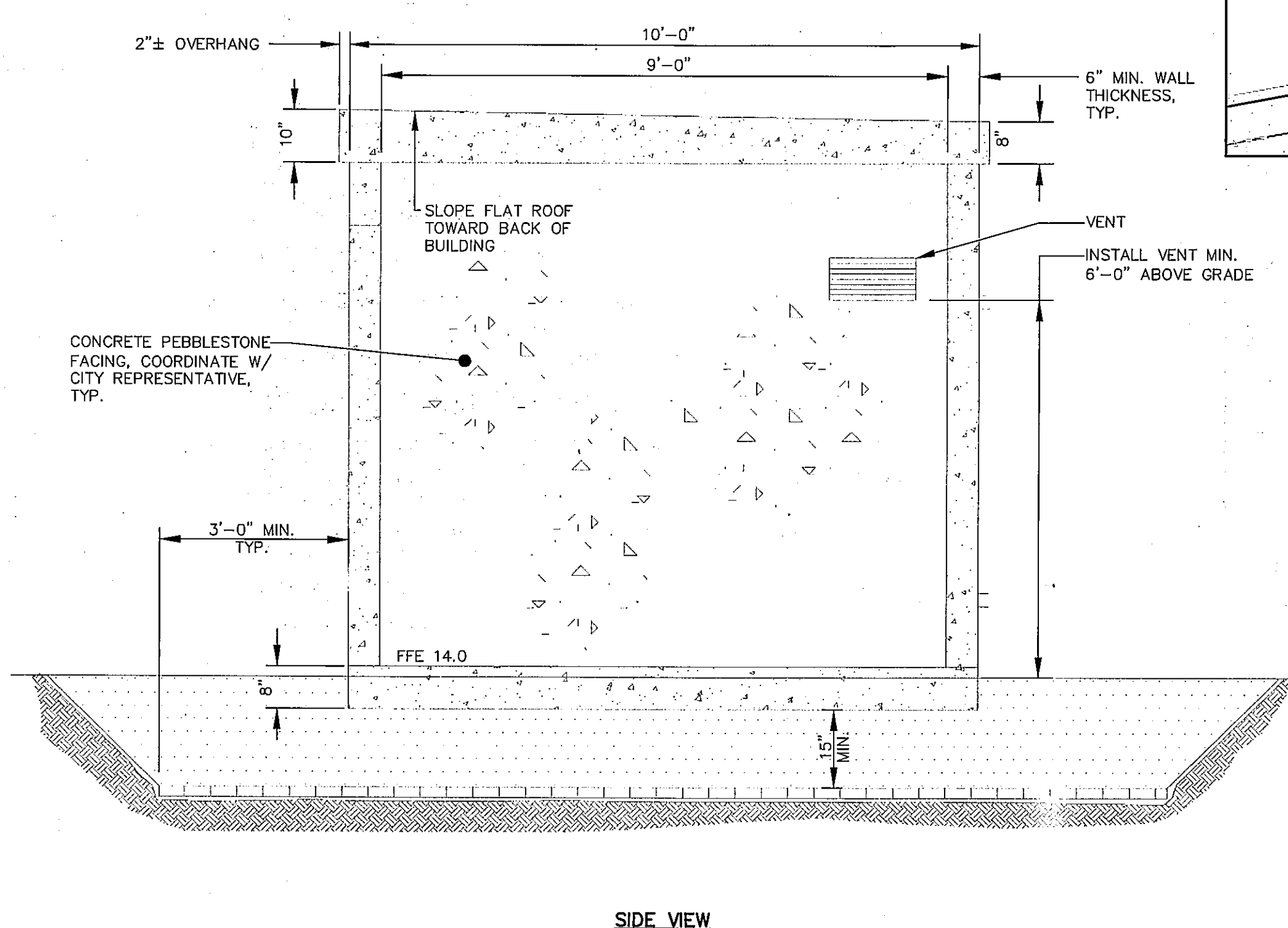
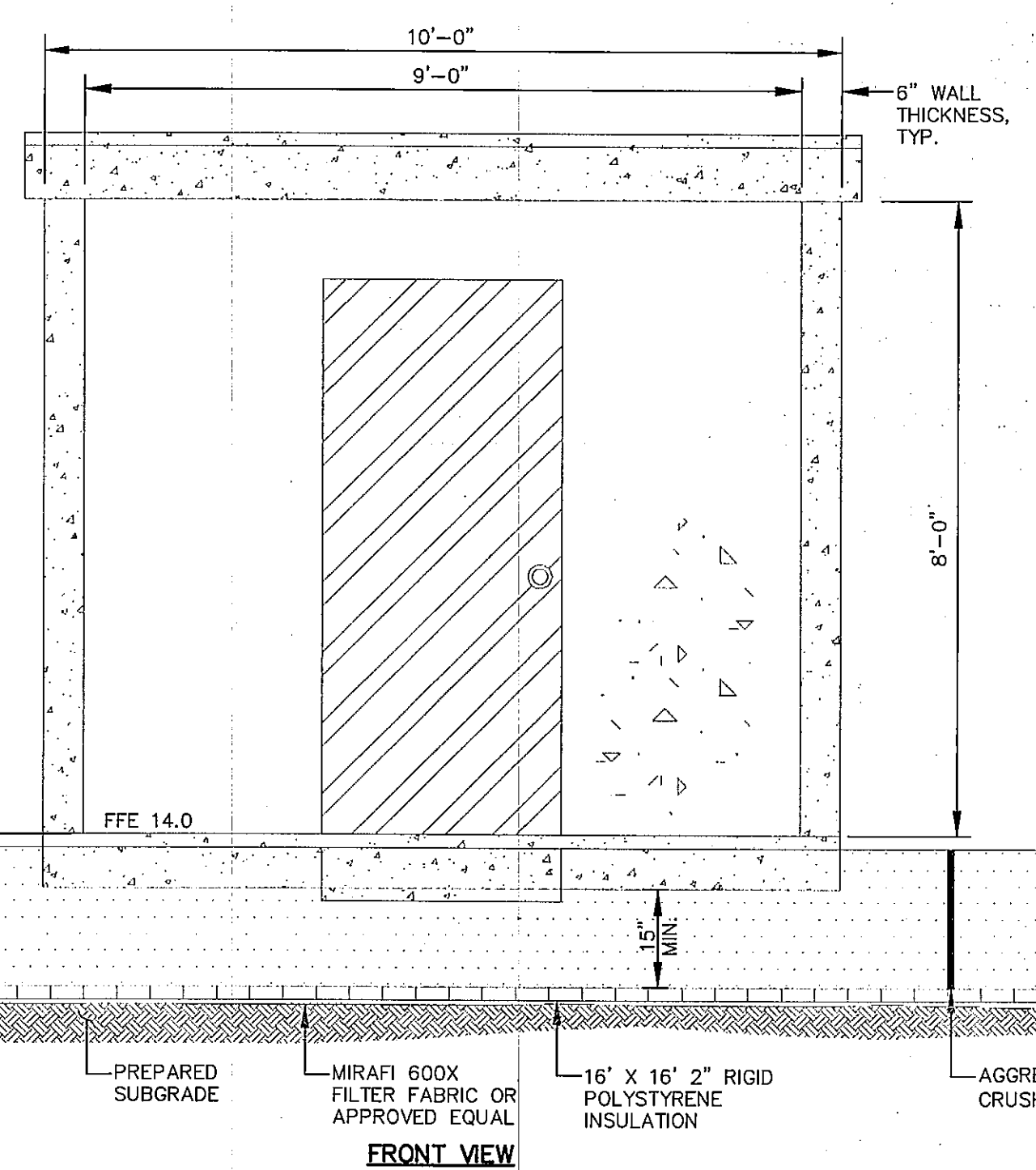


SHEET #
 31 OF 54
 PLAN NUMBER

SINGLE PHASE TRANSFORMER, INSTALL PER CENTRAL MAINE POWER (CMP) SPECIFICATIONS, THE TOP OF FOUNDATION ELEVATION SHALL EQUAL THE CSO CONTROL STATION FFE, SEE SHEET 11
APPROX. LIMITS OF TRANSFORMER FOUNDATION



- NOTES:
1. PRECAST BUILDING DRAWINGS SHALL BE SUBMITTED FOR APPROVAL.
 2. INSTALL PRECAST CONCRETE BUILDING PER MANUFACTURER'S RECOMMENDATIONS.
 3. ROOF, FLOOR, AND WALL PANELS MUST EACH BE PRODUCED AS SINGLE COMPONENT MONOLITHIC PANELS. NO ROOF, FLOOR, OR VERTICAL WALL JOINTS WILL BE ALLOWED, EXCEPT AT CORNERS. WALL PANELS SHALL BE SET ON TOP OF FLOOR PANEL.
 4. ONE (1) SCREENED ALUMINUM VENT TO BE CAST IN REAR WALL PER DETAIL. VENT SHALL BE SUNVENT #168FL OR APPROVED EQUAL.
 5. ALL PANELS SHALL BE SECURELY FASTENED TOGETHER WITH 3/8" THICK STEEL BRACKETS. STEEL IS TO BE OF STRUCTURAL QUALITY, HOT-ROLLED CARBON COMPLYING WITH ASTM A283, GRADE C AND HOT DIPPED GALVANIZED AFTER FABRICATION. ALL FASTENERS TO BE 1/2" DIAMETER BOLTS COMPLYING WITH ASTM A307 FOR LOW-CARBON STEEL BOLTS; CAST-IN ANCHORS USED FOR PANEL CONNECTIONS TO BE DAYTON-SUPERIOR #6-53 OR EQUAL. ALL INSERTS FOR CORNER CONNECTIONS MUST BE SECURED DIRECTLY TO FORM BEFORE CASTING PANELS. NO FLOATING-IN OF CONNECTION INSERTS SHALL BE ALLOWED.
 6. DOOR AND FRAME SHALL COMPLY WITH STEEL DOOR INSTITUTE "RECOMMENDED SPECIFICATIONS FOR STANDARD STEEL DOORS AND FRAMES" (SDI-100) AND AS HEREIN SPECIFIED. THE BUILDING SHALL BE EQUIPPED WITH SINGLE 3'-0" X 6'-8" X 1-3/4", 18-GAUGE GALVANIZED/INSULATED DOMINION IMPERIAL RIGHT HAND REVERSE METAL DOORS WITH 16-GAUGE GALVANIZED FRAMES. DOOR AND FRAME SHALL BE BONDERIZED AND PAINTED ONE COAT OF RUST INHIBITIVE PRIMER AND ONE FINISH COAT OF ENAMEL PAINT; COLOR SHALL BE COORDINATED WITH CITY REPRESENTATIVE.
 7. INTERIOR OF BUILDING SHALL BE SMOOTH STEEL FORM FINISH ON ALL INTERIOR PANEL SURFACES.
 8. EXTERIOR SURFACE FINISH SHALL BE BE IMPRINTED IN TOP FACE OF PANEL. COORDINATE WITH CITY REPRESENTATIVE.
 9. PROVIDE POSITIVE DRAINAGE FOR THE BUILDING.
 10. COORDINATE KNOCKOUT LOCATIONS FOR HYDRAULIC EQUIPMENT AND ELECTRIC LINES WITH HYDRAULIC EQUIPMENT AND SCADA PANEL MANUFACTURERS.
 11. REMOVE ONLY ENOUGH VEGETATION NEEDED TO INSTALL THE PRECAST CONCRETE BUILDING. PROTECT ADJACENT TREES, PAYING CAREFUL ATTENTION TO THE 38" TREE SOUTH OF THE BUILDING AND ALONG BAXTER BOULEVARD. FINISHED GRADE AT PERIMETER OF BUILDING SHALL MATCH EXISTING GRADE.
 12. PRECAST BUILDING CONCRETE PAD, VENT, DOOR AND OTHER APPURTENANCES SHALL BE INCIDENTAL TO THE PRECAST BUILDING PAY ITEM.
 13. ANTENNAS FOR THE CSO CONTROL STATION SHALL BE MOUNTED ON THE SOLAR PANEL POLE SHOWN ON SHEET E-2. SEE SHEET IC-13 FOR ANTENNA INSTALLATION DETAILS.



CSO CONTROL STATION LANDSCAPE PLAN
1"=8'

LANDSCAPE LIST

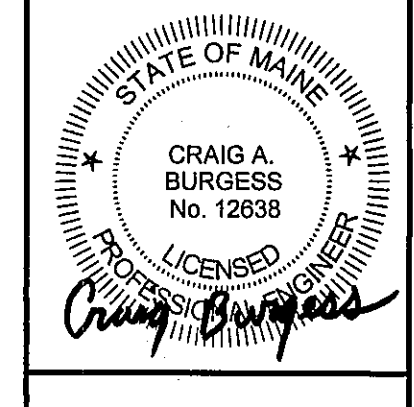
KEY	BOTANICAL NAME	COMMON NAME	SIZE
AC	ABIES CONCOLOR	WHITE FIR	6-8' HGT
CC	CARPINUS CAROLINIANA	AMERICAN HORNBEAM	3" -CAL
KL	KALMIA LATIFOLIA 'BRIDESMAID'	MOUNTAIN LAUREL	4-36"
MS	MISCANTHUS SINENSIS 'MORNING LIGHT'	MAIDEN GRASS	#2
PO	PICEA OMORIKA	SERBIAN SPRUCE	6-8' HGT
POM	PHYSCARPUS OPULIFOLIUS 'MONLO'	DIABOLO NINEBARK	36"
SN	SPIREA NIPPONICA 'SNOWMOUND'	SNOWMOUND SPIREA	36"
TO	THUJA OCCIDENTALIS 'SMARAGD'	EMERALD GREEN ARBORVITAE	7-8' HGT
UA	ULMUS AMERICANA 'VALLEY FORGE'	VALLEY FORGE ELM	3" -CAL.

CSO CONTROL STATION (PAY ITEM 534.80)
NOT TO SCALE

LDD PROJECT NAME:
BAXTER BOULEVARD
NORTH STORAGE CONDUIT
DRAWING NAME:
09006D
FIELD BOOK USED:
N/A

REFERENCES:
09006D.dwg, TAB: DETAILS

DESIGNED BY: OAM/CAB
DRAWN BY: CAB
CHECKED BY: OAM
SCALE: AS NOTED
DATE: 11-15-2012

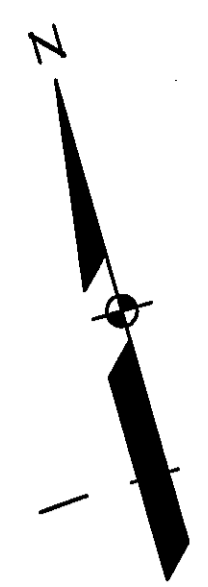


BAXTER BOULEVARD
NORTH STORAGE CONDUIT
CSO CONTROL STATION
CONSTRUCTION DETAILS

CITY OF PORTLAND, MAINE
PUBLIC SERVICES DEPARTMENT
ENGINEERING DIVISION

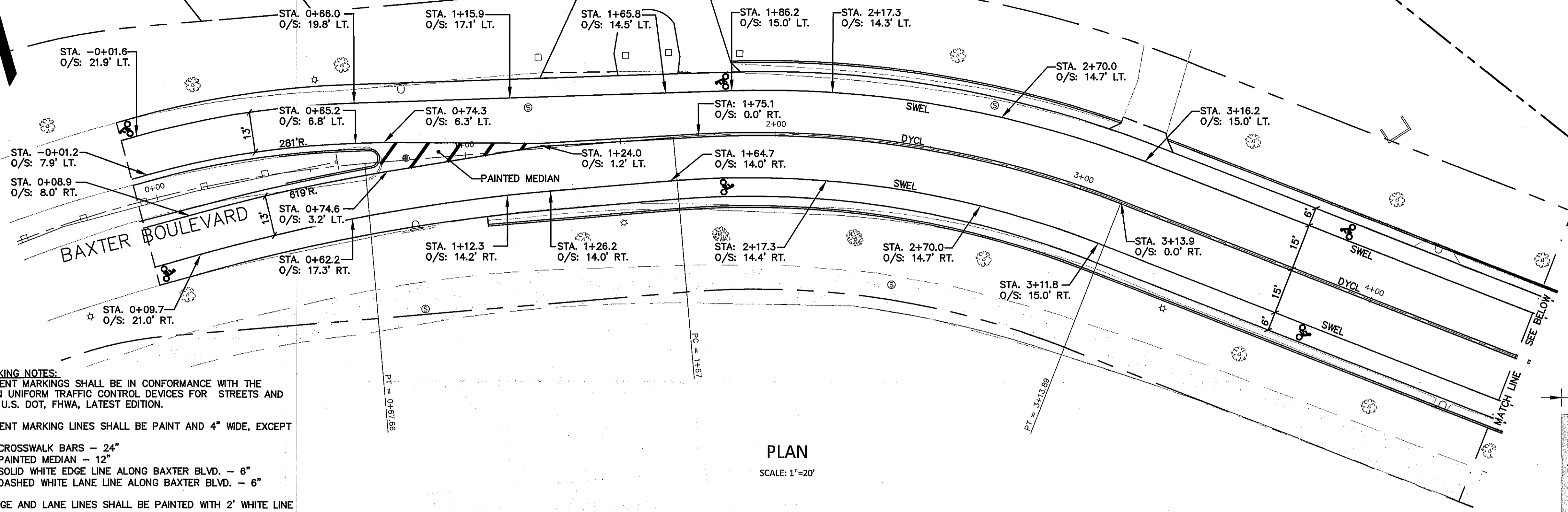


SHEET #
32 OF 54
PLAN NUMBER

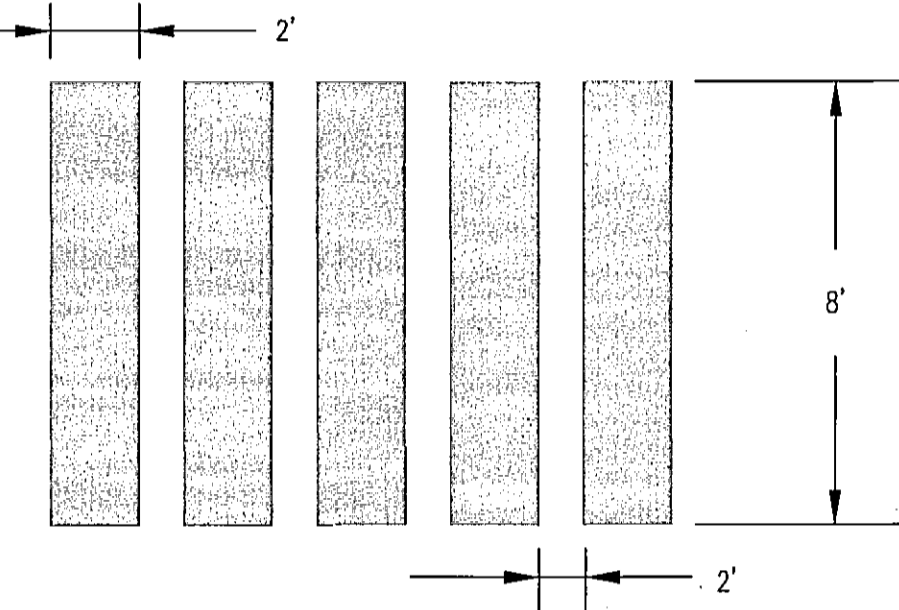
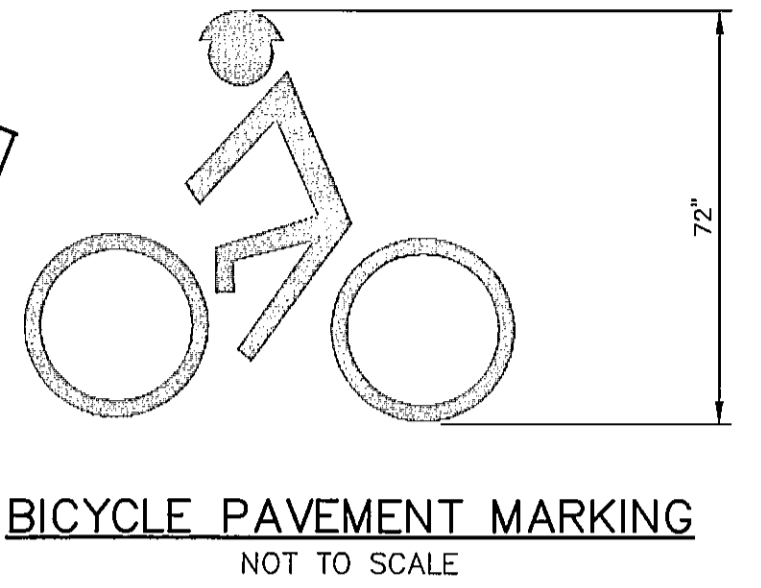


LEGEND	
DYCL	— DOUBLE YELLOW CENTER LINE
SWEL	— SOLID WHITE EDGE LINE
DWEL	— DASHED WHITE EDGE LINE

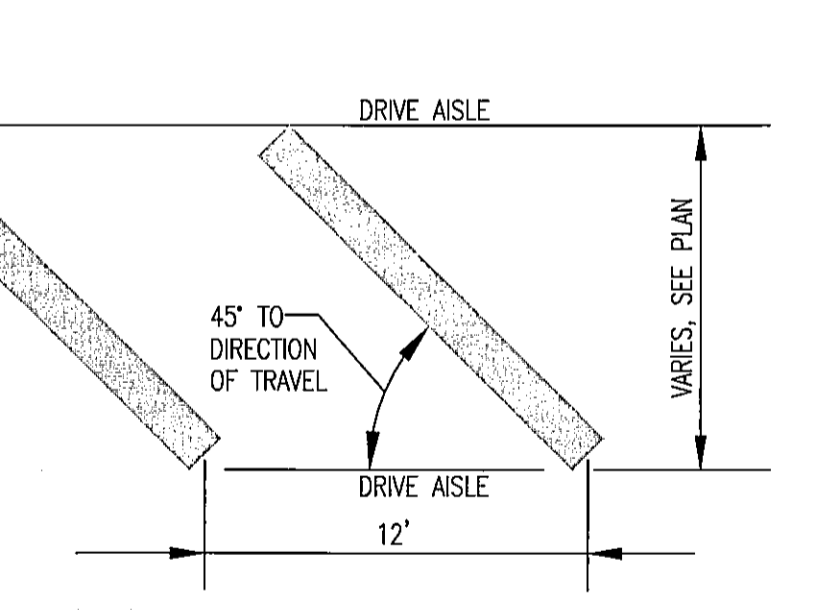
LDD PROJECT NAME:
BAXTER BOULEVARD
NORTH STORAGE CONDUIT
DRAWING NAME:
09006pm1
FIELD BOOK USED:
N/A



PLAN
SCALE: 1"=20'



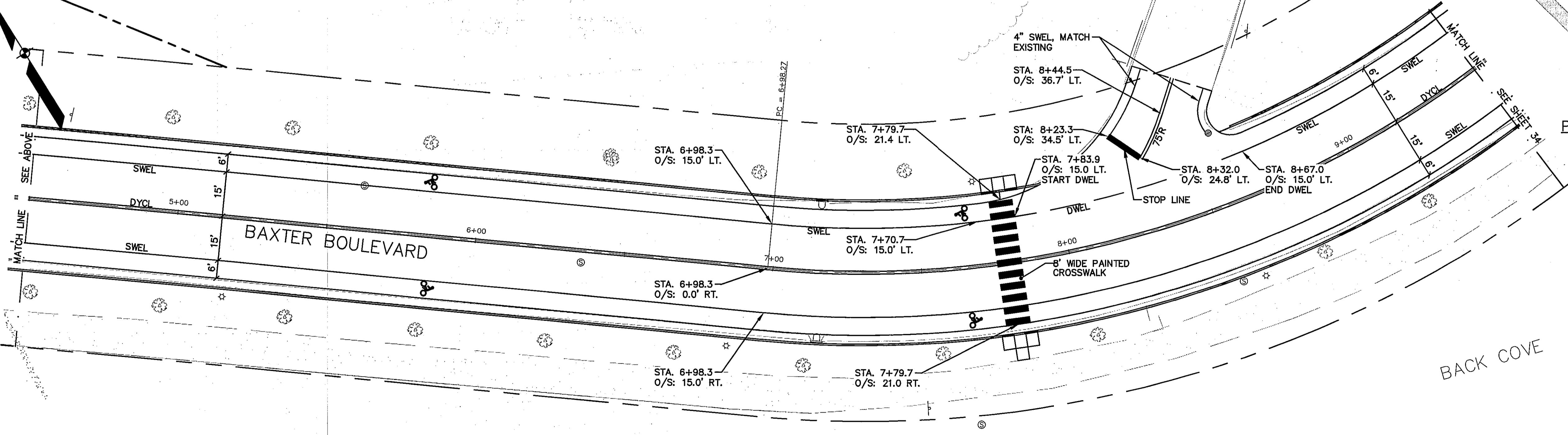
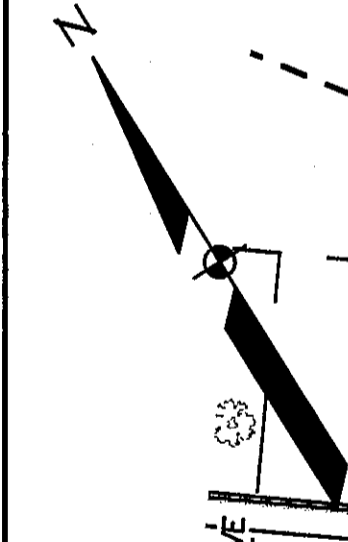
CROSSWALK DETAIL
NOT TO SCALE



PAINTED MEDIAN DETAIL
NOT TO SCALE

- PAVEMENT MARKING NOTES:**
- ALL PAVEMENT MARKINGS SHALL BE IN CONFORMANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS, U.S. DOT, FHWA, LATEST EDITION.
 - ALL PAVEMENT MARKING LINES SHALL BE PAINT AND 4" WIDE, EXCEPT FOR:
CROSSWALK BARS — 24"
PAINTED MEDIAN — 12"
SOLID WHITE EDGE LINE ALONG BAXTER BLVD. — 6"
DASHED WHITE LANE LINE ALONG BAXTER BLVD. — 6"
 - DASHED EDGE AND LANE LINES SHALL BE PAINTED WITH 2' WHITE LINE AND 4' GAP.
 - PAVEMENT WORD AND SYMBOL MARKINGS SHALL BE WHITE PAINT.
 - REMOVE ALL CONFLICTING EXISTING PAVEMENT MARKING LINES.
- NOTES FOR SYMBOLS AND ARROWS:**
- STROKE WIDTH AND LINE WIDTH VARIANCE SHALL BE NO MORE THAN +/- 1/4" FROM DIMENSIONS SHOWN.
 - SYMBOLS AND LETTERS SHALL BE PROPORTIONED ACCORDING TO THE GRID SHOWN.
 - SPACING BETWEEN CHARACTERS SHALL BE ONE UNIT, BUT VISUAL SPACING MAY BE USED.

BACK COVE



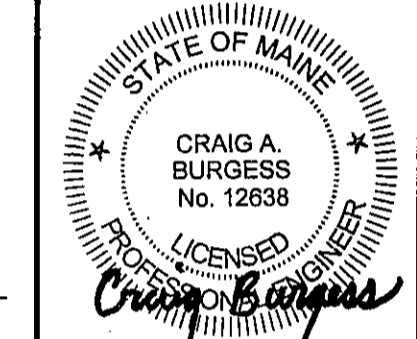
PLAN
SCALE: 1"=20'

BACK COVE

BACK COVE

REFERENCES:
09006pm1.dwg, TAB: BAXTER 0+0-9+50

DESIGNED BY:	09006pm1.dwg
DRAWN BY:	TAB: BAXTER 0+0-9+50
CHECKED BY:	
DATE:	11-16-2012



BAXTER BOULEVARD
NORTH STORAGE CONDUIT
PAVEMENT MARKING PLAN
STATIONS 0+00 TO 9+50

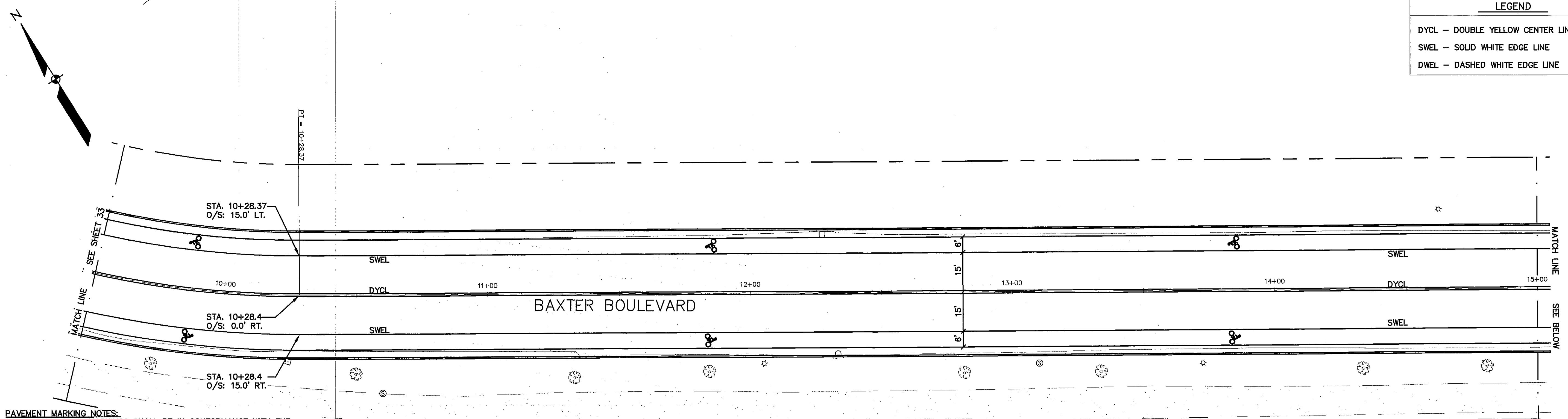
CITY OF PORTLAND, MAINE
PUBLIC SERVICES DEPARTMENT
ENGINEERING DIVISION



SHEET #
33 OF 54
PLAN NUMBER

LEGEND	
DYCL	DOUBLE YELLOW CENTER LINE
SWEL	SOLID WHITE EDGE LINE
DWEL	DASHED WHITE EDGE LINE

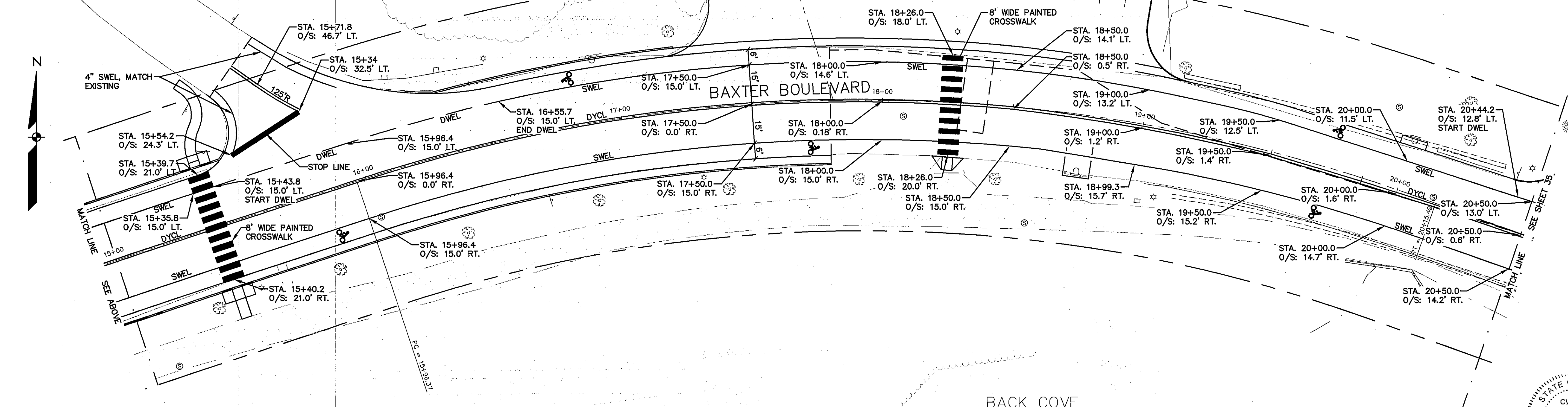
NORTH STORAGE CONDUIT
DRAWING NAME:
09006PM1
FIELD BOOK USED:
N/A



- PAVEMENT MARKING NOTES:**
- ALL PAVEMENT MARKINGS SHALL BE IN CONFORMANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS, U.S. DOT, FHWA, LATEST EDITION.
 - ALL PAVEMENT MARKING LINES SHALL BE PAINT AND 4" WIDE, EXCEPT FOR:
CROSSWALK BARS - 24"
PAINTED MEDIAN - 12"
SOLID WHITE EDGE LINE ALONG BAXTER BLVD. - 6"
DASHED WHITE LANE LINE ALONG BAXTER BLVD. - 6"
 - DASHED EDGE AND LANE LINES SHALL BE PAINTED WITH 2" WHITE LINE AND 4" GAP.
 - PAVEMENT WORD AND SYMBOL MARKINGS SHALL BE WHITE PAINT.
 - REMOVE ALL CONFLICTING EXISTING PAVEMENT MARKING LINES.
 - PROVIDE MINIMUM 5' WIDE BICYCLE LANE. COORDINATE WITH ENGINEER IN CONFLICTING AREAS.

- NOTES FOR SYMBOLS AND ARROWS:**
- STROKE WIDTH AND LINE WIDTH VARIANCE SHALL BE NO MORE THAN +/- 1/4" FROM DIMENSIONS SHOWN.
 - SYMBOLS AND LETTERS SHALL BE PROPORTIONED ACCORDING TO THE GRID SHOWN.
 - SPACING BETWEEN CHARACTERS SHALL BE ONE UNIT, BUT VISUAL SPACING MAY BE USED.

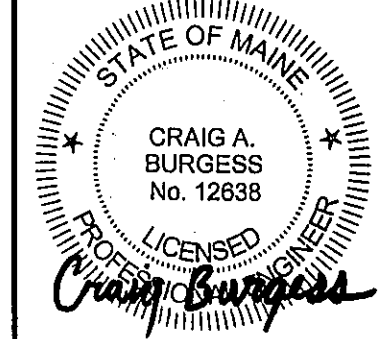
PLAN
SCALE: 1"=20'



PLAN
SCALE: 1"=20'

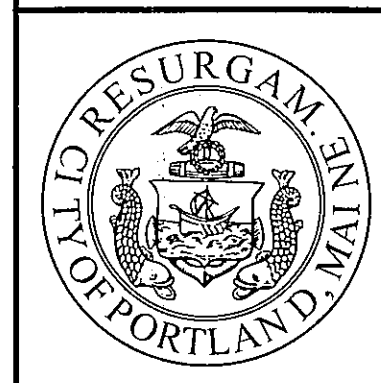
REFERENCES:
09006pm1.dwg, TAB: BAXTER 9+50-20+50

DESIGNED BY:	09006PM1
DRAWN BY:	09006PM1
CHECKED BY:	09006PM1
SCALE:	AS NOTED
DATE:	11-16-2022

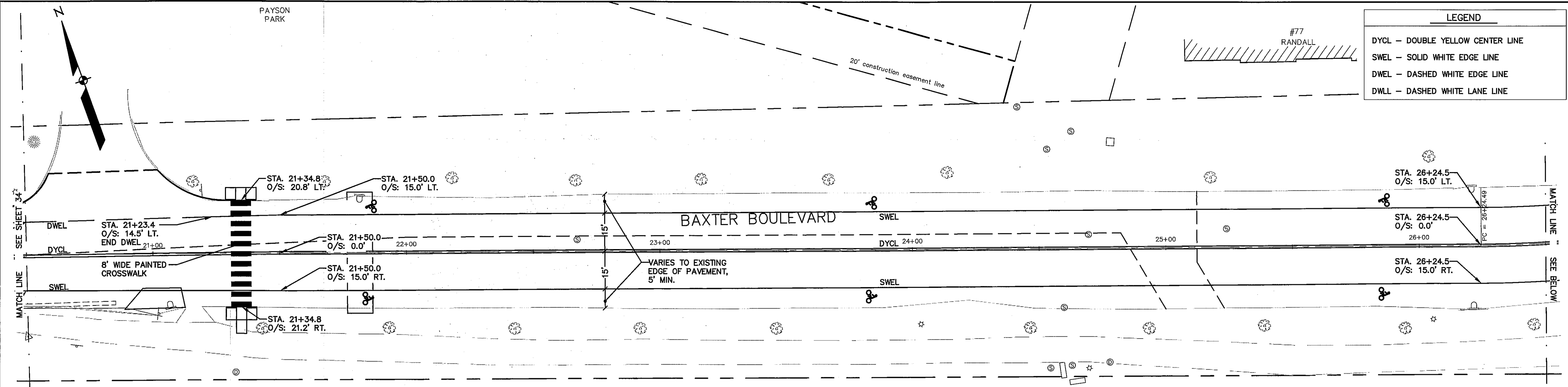


BAXTER BOULEVARD
NORTH STORAGE CONDUIT
PAVEMENT MARKING PLAN
STATIONS 9+50 TO 20+50

CITY OF PORTLAND, MAINE
PUBLIC SERVICES DEPARTMENT
ENGINEERING DIVISION



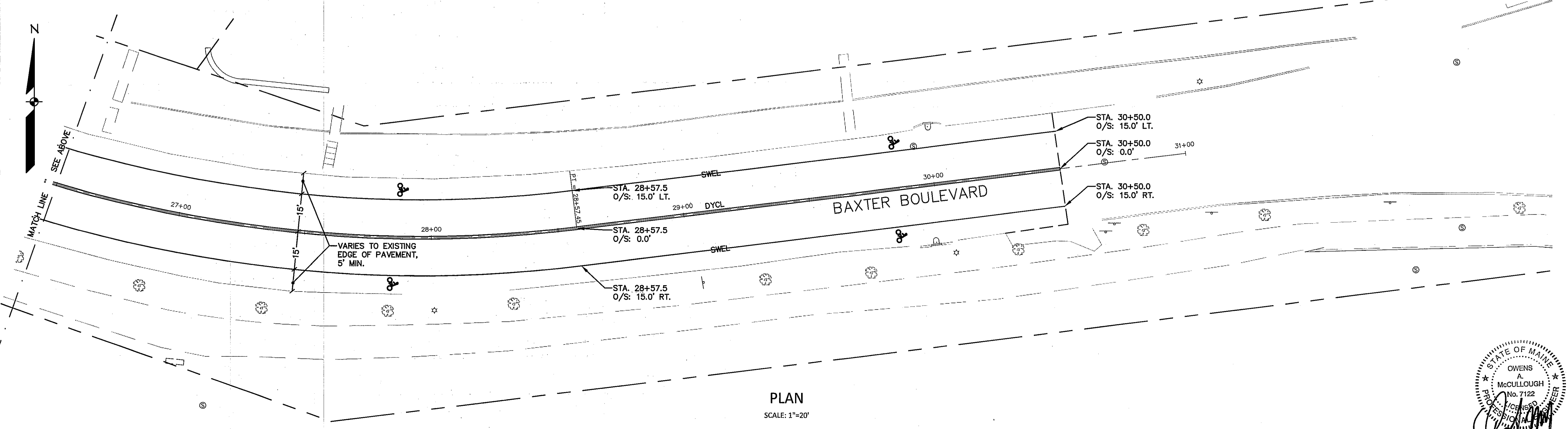
SHEET #
34 OF 54
PLAN NUMBER



LEGEND	
DYCL	- DOUBLE YELLOW CENTER LINE
SWEL	- SOLID WHITE EDGE LINE
DWEL	- DASHED WHITE EDGE LINE
DWLL	- DASHED WHITE LANE LINE

- PAVEMENT MARKING NOTES:**
- ALL PAVEMENT MARKINGS SHALL BE IN CONFORMANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS, U.S. DOT, FHWA, LATEST EDITION.
 - ALL PAVEMENT MARKING LINES SHALL BE PAINT AND 4" WIDE, EXCEPT FOR:
 - CROSSWALK BARS - 24"
 - PAINTED MEDIAN - 12"
 - SOLID WHITE EDGE LINE ALONG BAXTER BLVD. - 6"
 - DASHED WHITE LANE LINE ALONG BAXTER BLVD. - 6"
 - DASHED EDGE AND LANE LINES SHALL BE PAINTED WITH 2" WHITE LINE AND 4" GAP.
 - PAVEMENT WORD AND SYMBOL MARKINGS SHALL BE WHITE PAINT.
 - REMOVE ALL CONFLICTING EXISTING PAVEMENT MARKING LINES.
 - PROVIDE MINIMUM 5' WIDE BICYCLE LANE. COORDINATE WITH ENGINEER IN CONFLICTING AREAS.
- NOTES FOR SYMBOLS AND ARROWS:**
- STROKE WIDTH AND LINE WIDTH VARIANCE SHALL BE NO MORE THAN +/- 1/4" FROM DIMENSIONS SHOWN.
 - SYMBOLS AND LETTERS SHALL BE PROPORTIONED ACCORDING TO THE GRID SHOWN.
 - SPACING BETWEEN CHARACTERS SHALL BE ONE UNIT, BUT VISUAL SPACING MAY BE USED.

PLAN
SCALE: 1"=20'

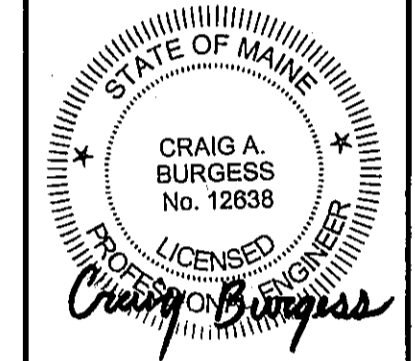


PLAN
SCALE: 1"=20'

BAXTER BOULEVARD
NORTH STORAGE CONDUIT
DRAWING NAME:
09006PM1
FIELD BOOK USED:
N/A

REFERENCES:
09006pm1.dwg, TAB: BAXTER 20+50-26+50

DESIGNED BY:	CAM/CAS
DRAWN BY:	BR/CAS
CHECKED BY:	CAM
SCALE:	AS NOTED
DATE:	11-16-2012

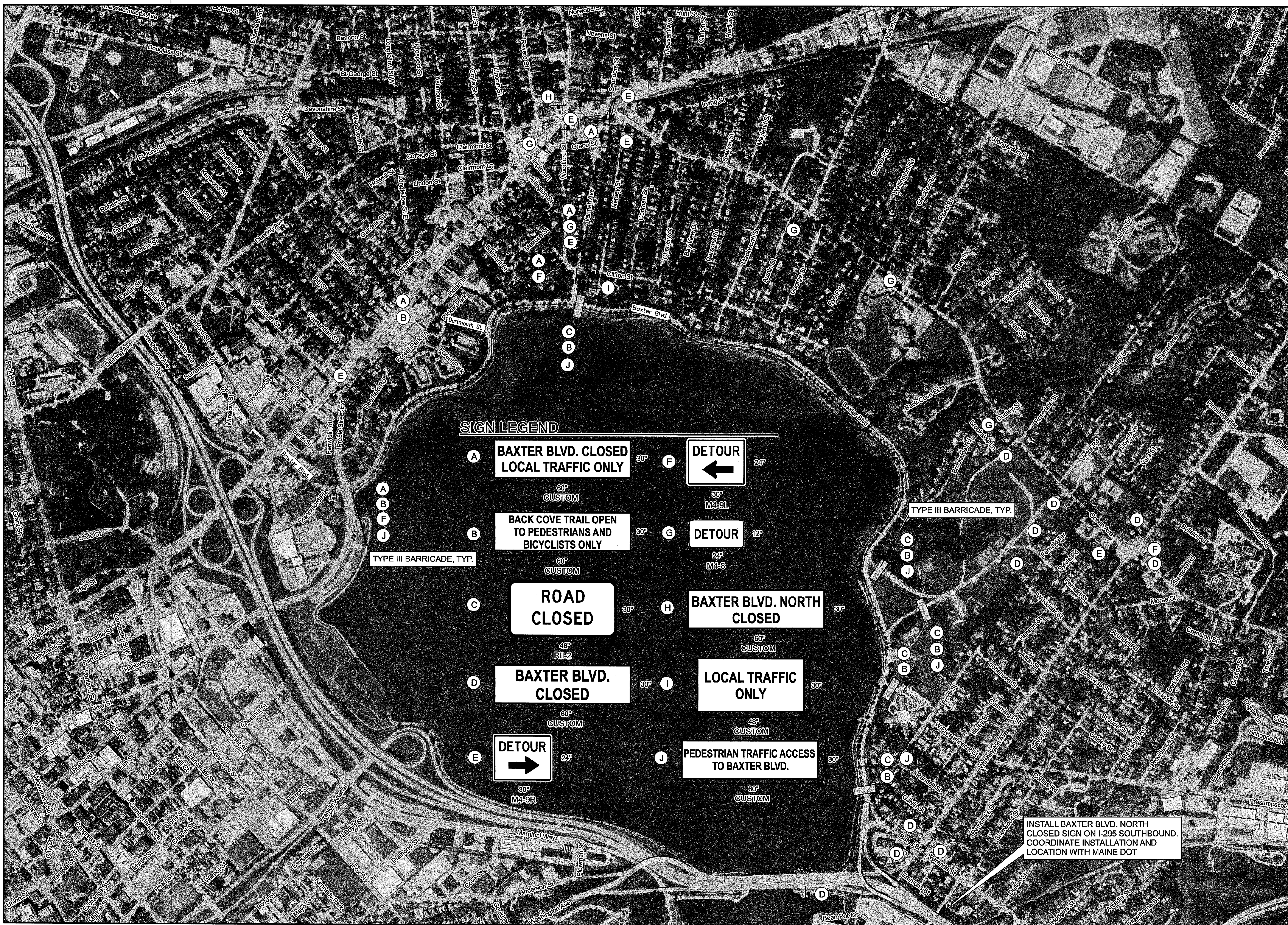


BAXTER BOULEVARD
NORTH STORAGE CONDUIT
PAVEMENT MARKING PLAN
STATIONS 20+50 TO 31+00

CITY OF PORTLAND, MAINE
PUBLIC SERVICES DEPARTMENT
ENGINEERING DIVISION



SHEET #
35 OF 54
PLAN NUMBER



SIGN LEGEND

- A** BAXTER BLVD. CLOSED LOCAL TRAFFIC ONLY
30" CUSTOM
- B** BACK COVE TRAIL OPEN TO PEDESTRIANS AND BICYCLISTS ONLY
30" CUSTOM
- C** ROAD CLOSED
45" RII-2
- D** BAXTER BLVD. CLOSED
60" CUSTOM
- E** DETOUR (Right Arrow)
30" M4-9R
- F** DETOUR (Left Arrow)
24" M4-9L
- G** DETOUR
12" M4-8
- H** BAXTER BLVD. NORTH CLOSED
60" CUSTOM
- I** LOCAL TRAFFIC ONLY
45" CUSTOM
- J** PEDESTRIAN TRAFFIC ACCESS TO BAXTER BLVD.
60" CUSTOM

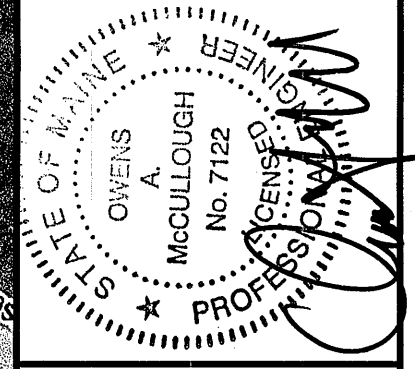
TYPE III BARRICADE, TYP.

INSTALL BAXTER BLVD. NORTH CLOSED SIGN ON I-295 SOUTHBOUND. COORDINATE INSTALLATION AND LOCATION WITH MAINE DOT

LDD PROJECT NAME:
BAXTER BOULEVARD NORTH STORAGE CONDUIT
DRAWING NAME:
09006TRAFFIC
FIELD BOOK USED:
N/A

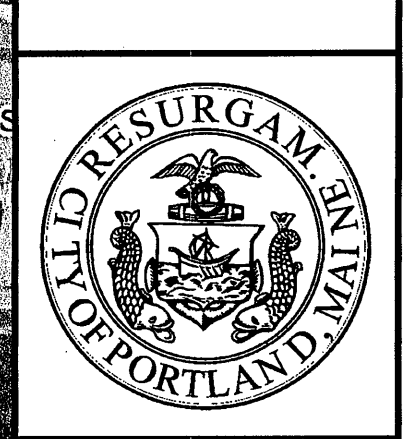
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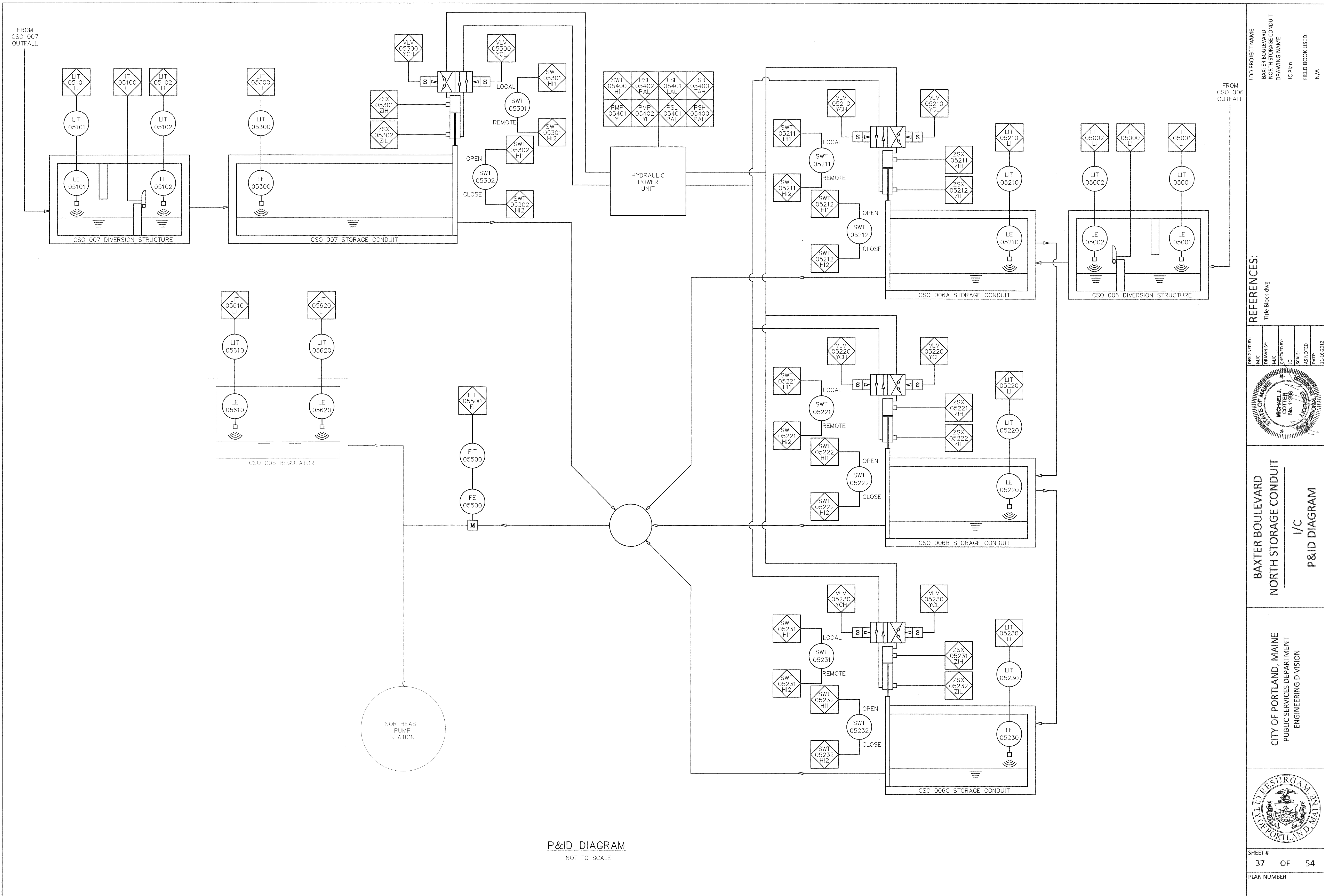
DESIGNED BY:	DATE:
CHECKED BY:	SCALE:
DRAWN BY:	AS NOTED:
DATE:	11-16-2012



BAXTER BOULEVARD NORTH STORAGE CONDUIT MAINTENANCE OF TRAFFIC PLAN

CITY OF PORTLAND, MAINE
PUBLIC SERVICES DEPARTMENT
ENGINEERING DIVISION





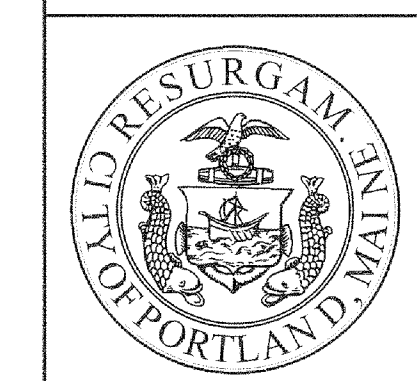
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 BAXTER BOULEVARD
 NORTH STORAGE CONDUIT
 DRAWING NAME:
 I/C Plan
 FIELD BOOK USED:
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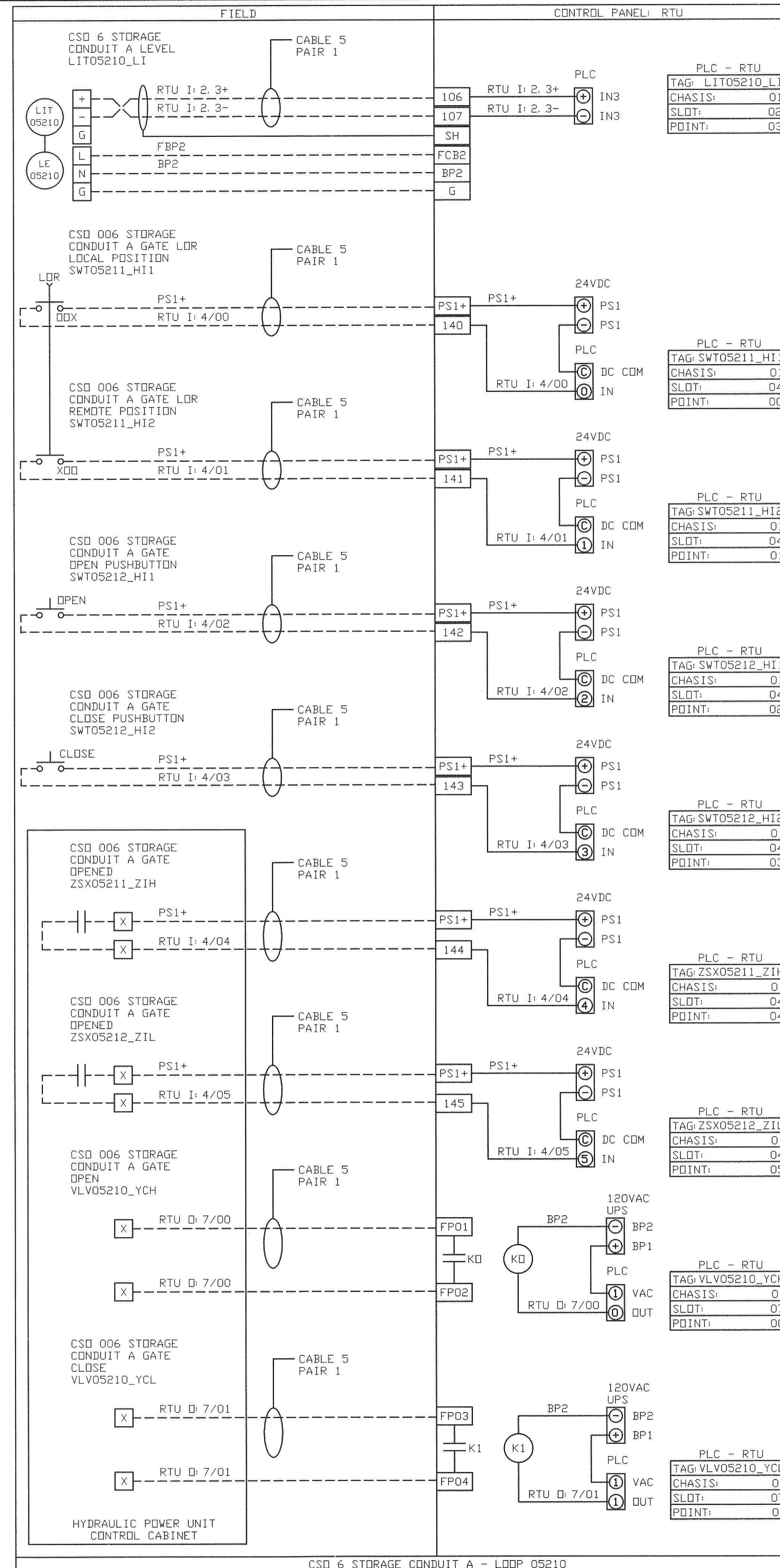
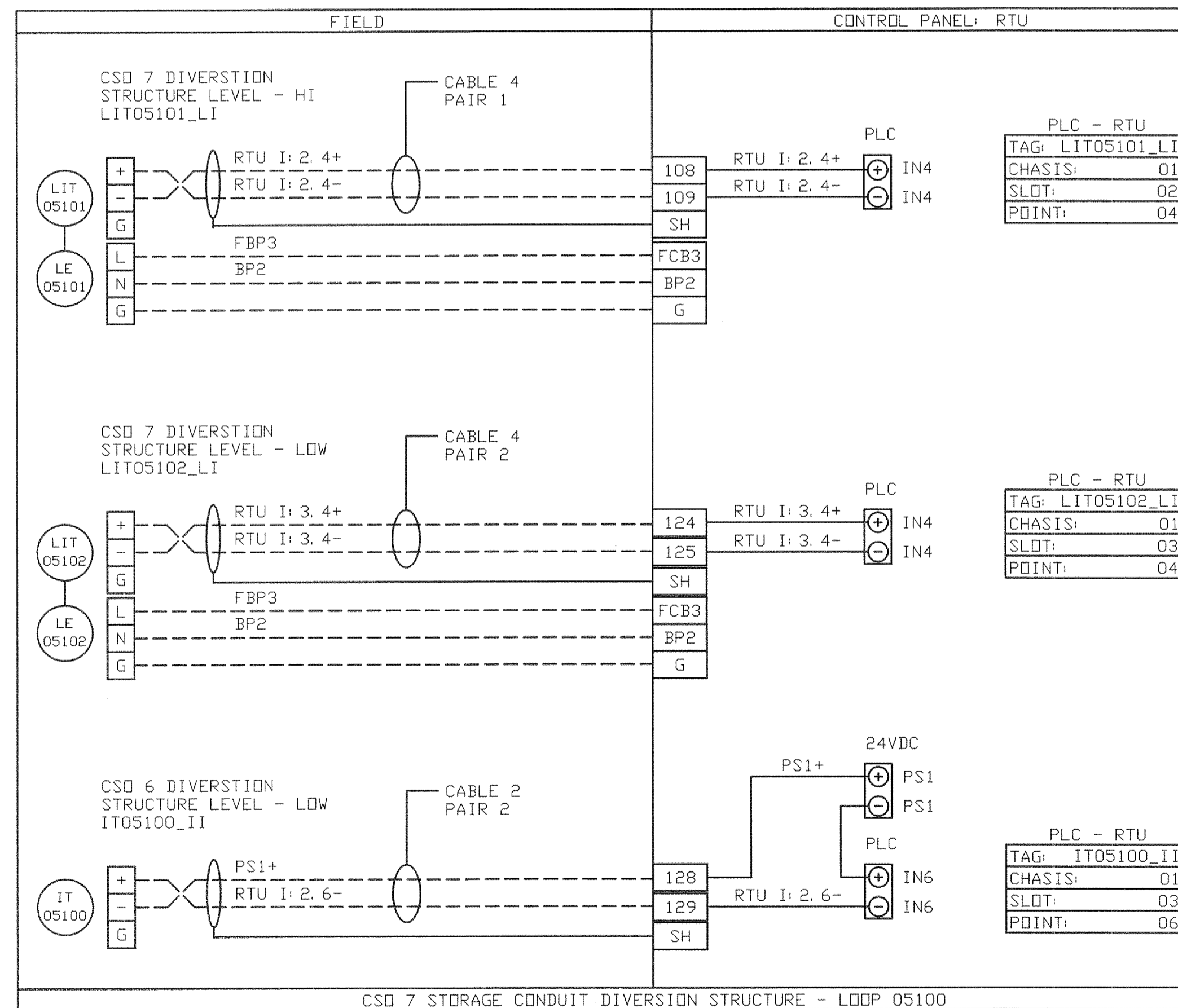
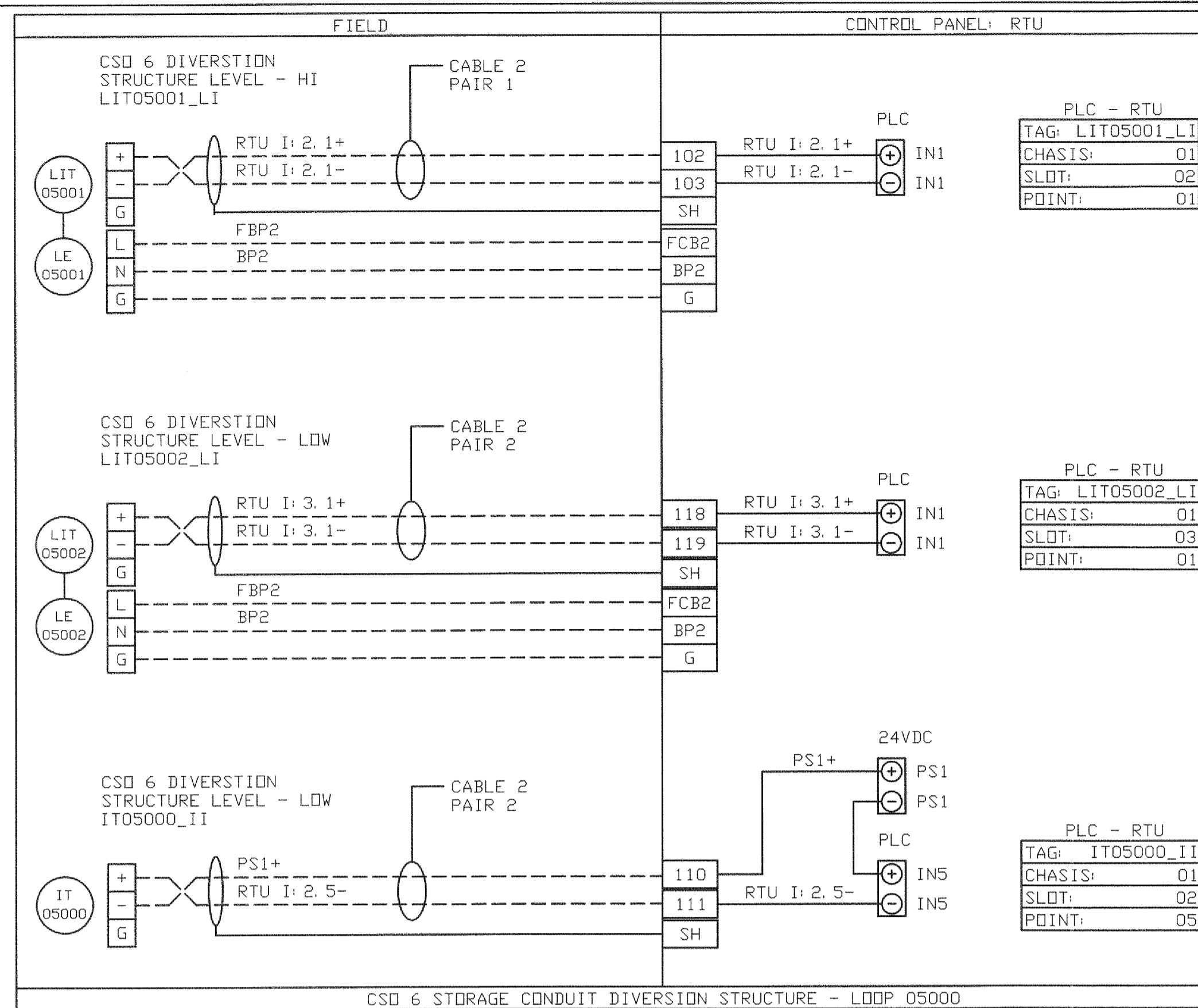
DESIGNED BY: MIC	DRAWN BY: MIC	CHECKED BY: JG	SCALE:	DATE: 11-16-2012
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BAXTER BOULEVARD
 NORTH STORAGE CONDUIT
 I/C
 P&ID DIAGRAM

CITY OF PORTLAND, MAINE
 PUBLIC SERVICES DEPARTMENT
 ENGINEERING DIVISION



SHEET #
 37 OF 54
 PLAN NUMBER



LDD PROJECT NAME:
 BAKER BOULEVARD
 NORTH STORAGE CONDUIT
 DRAWING NAME:
 IC P&ID
 FIELD BOOK USED:
 N/A

REFERENCES:
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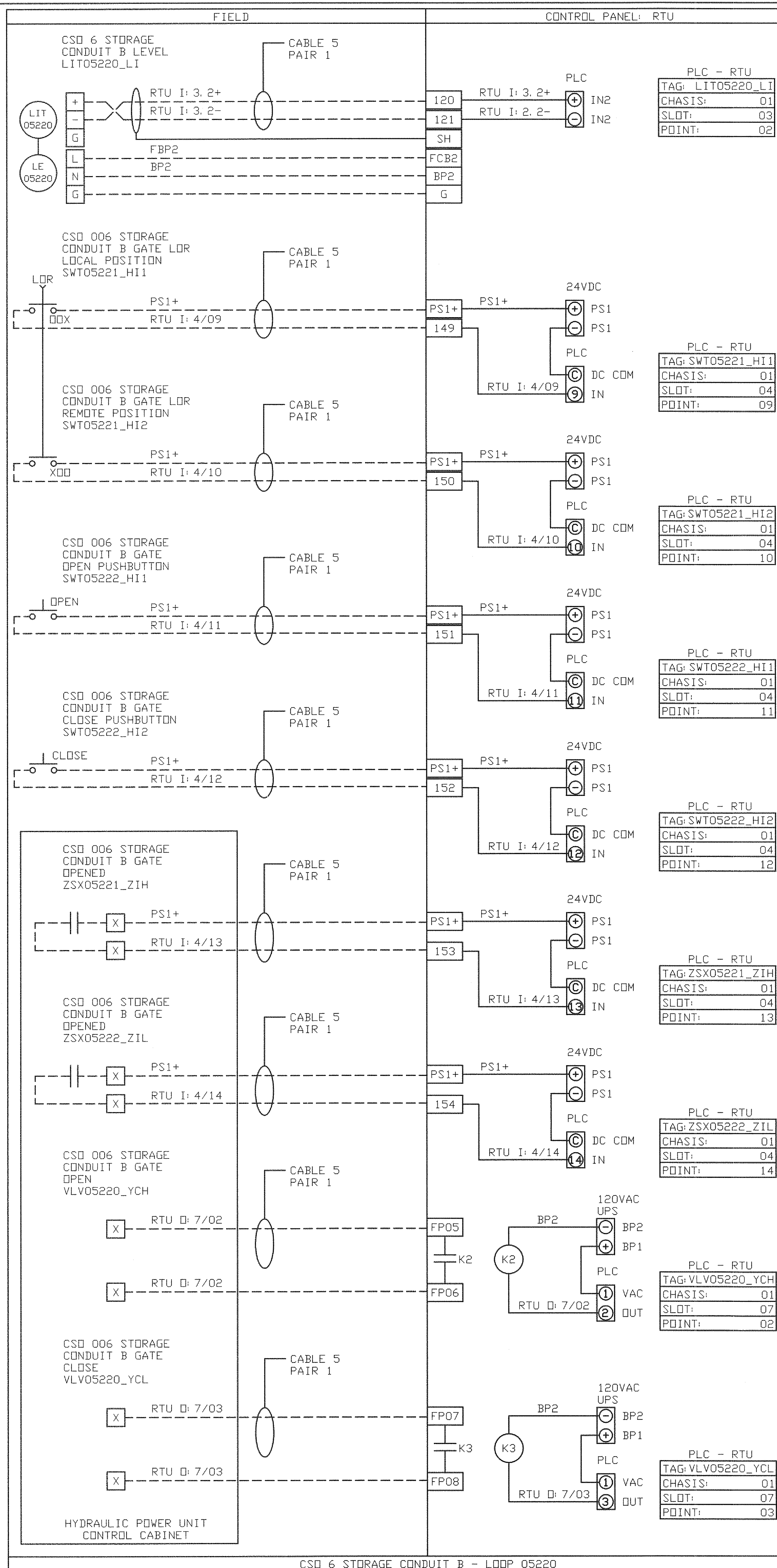
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MIC	MIC	MIC	AS NOTED	11-16-2012

STATE OF MAINE
 MICHAEL J. COTTER
 No. 11288
 PROFESSIONAL ENGINEER

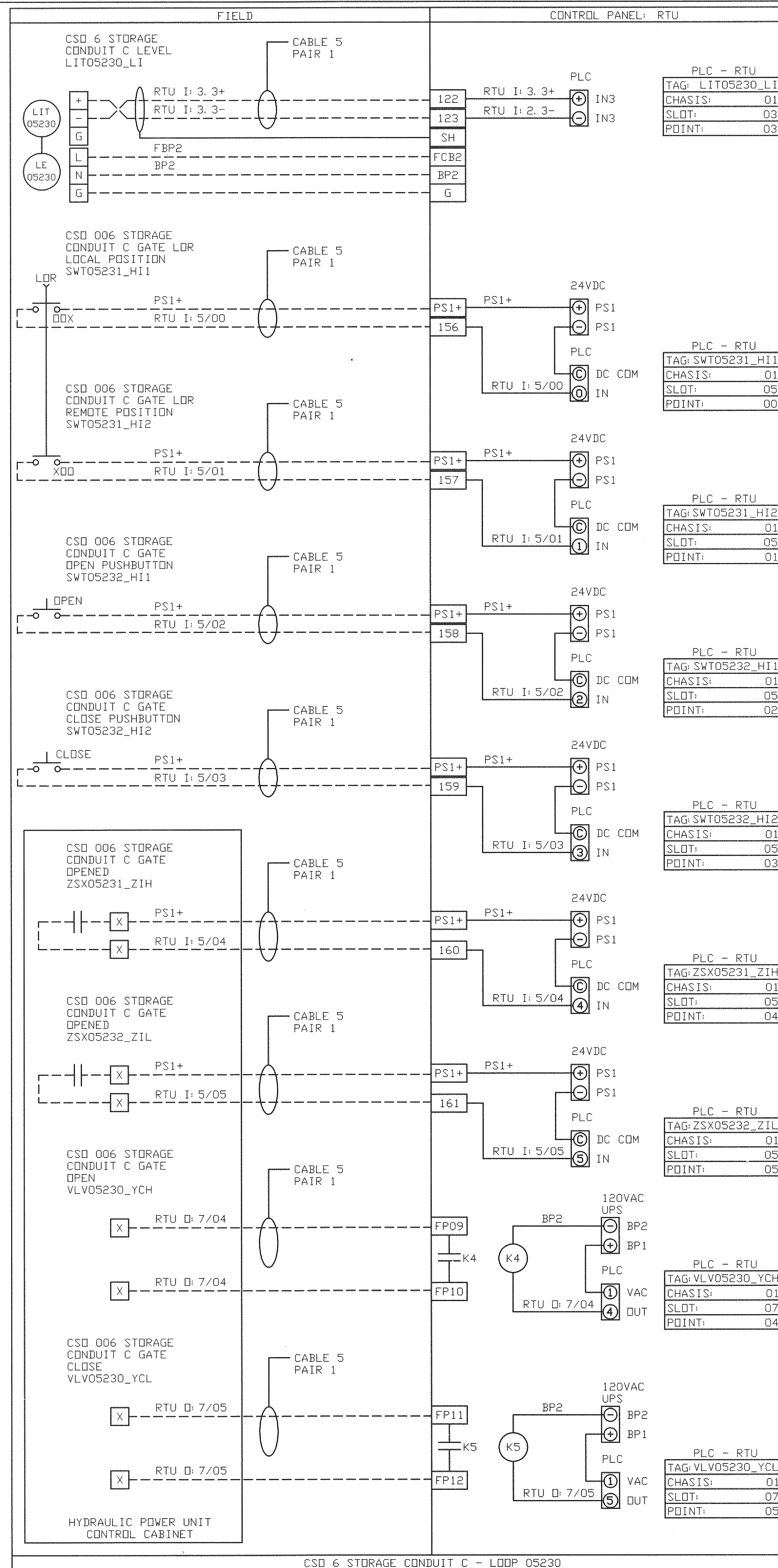
**BAXTER BOULEVARD
 NORTH STORAGE CONDUIT
 I/C
 LOOP DIAGRAMS**

CITY OF PORTLAND, MAINE
 PUBLIC SERVICES DEPARTMENT
 ENGINEERING DIVISION

SHEET #
 38 OF 54
 PLAN NUMBER



CSD 6 STORAGE CONDUIT B - LOOP 05220



CSD 6 STORAGE CONDUIT C - LOOP 05230

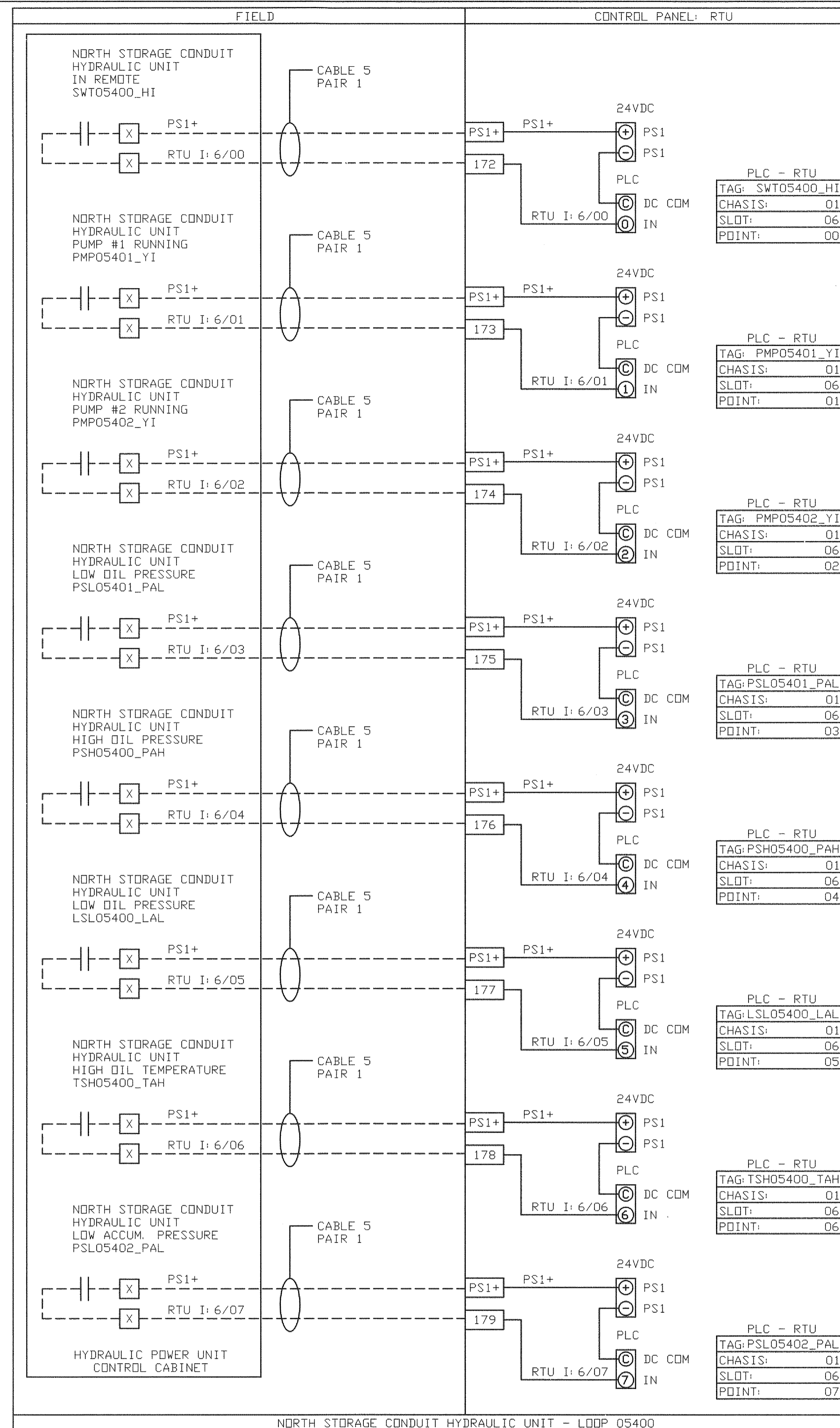
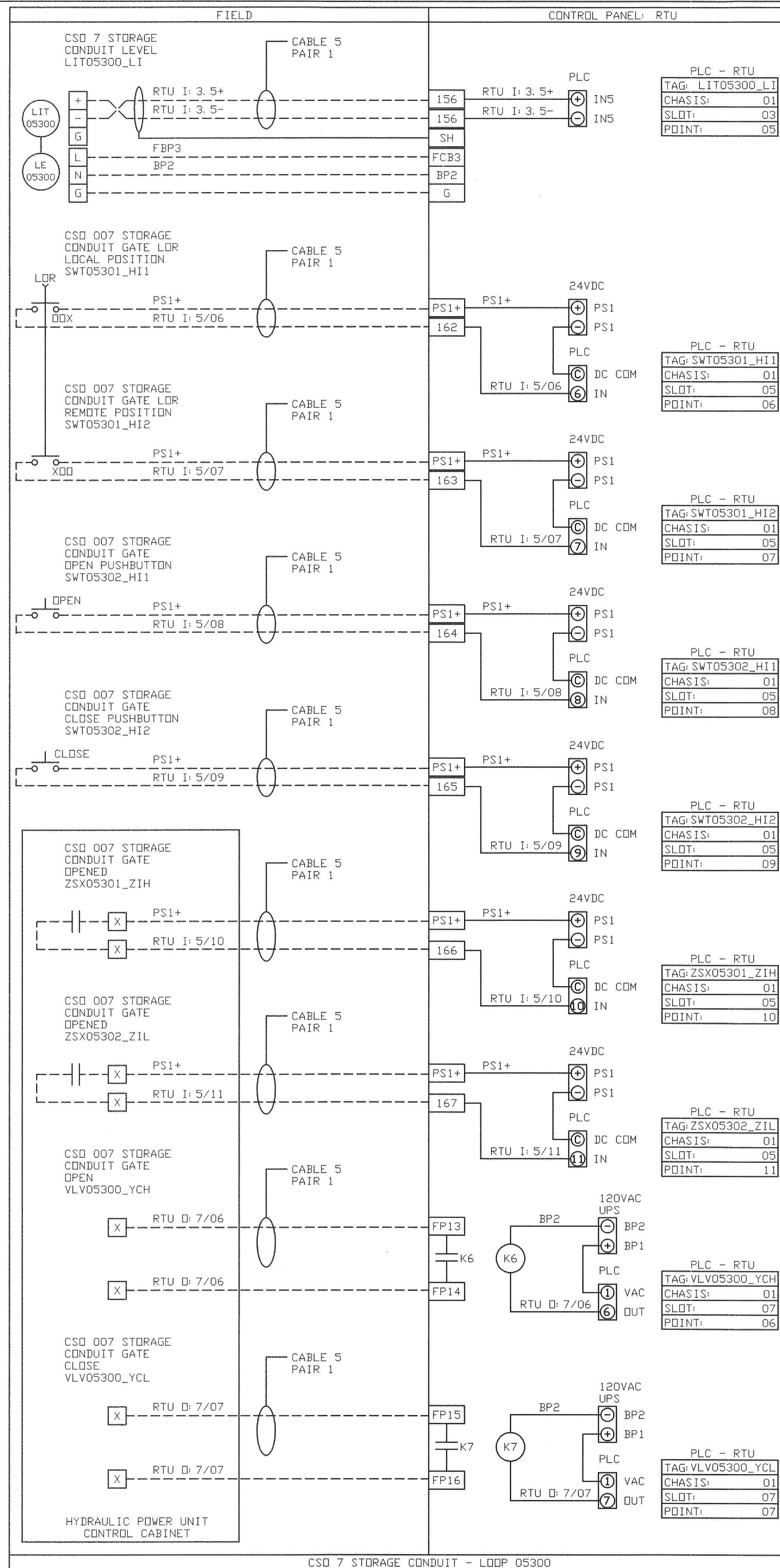
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BAXTER BOULEVARD
NORTH STORAGE CONDUIT
DRAWING NAME:
IC Plan
FIELD BOOK USED:
N/A

REFERENCES:
The Block.dwg

DESIGNED BY:
MICHAEL J. COTTER
No. 1128
LICENSED PROFESSIONAL ENGINEER
STATE OF MAINE

CITY OF PORTLAND, MAINE
PUBLIC SERVICES DEPARTMENT
ENGINEERING DIVISION

SHEET #
39 OF 54
PLAN NUMBER



LDD PROJECT NAME:
 BAXTER BOULEVARD
 NORTH STORAGE CONDUIT
 DRAWING NAME:
 I/C Plan
 FIELD BOOK USED:
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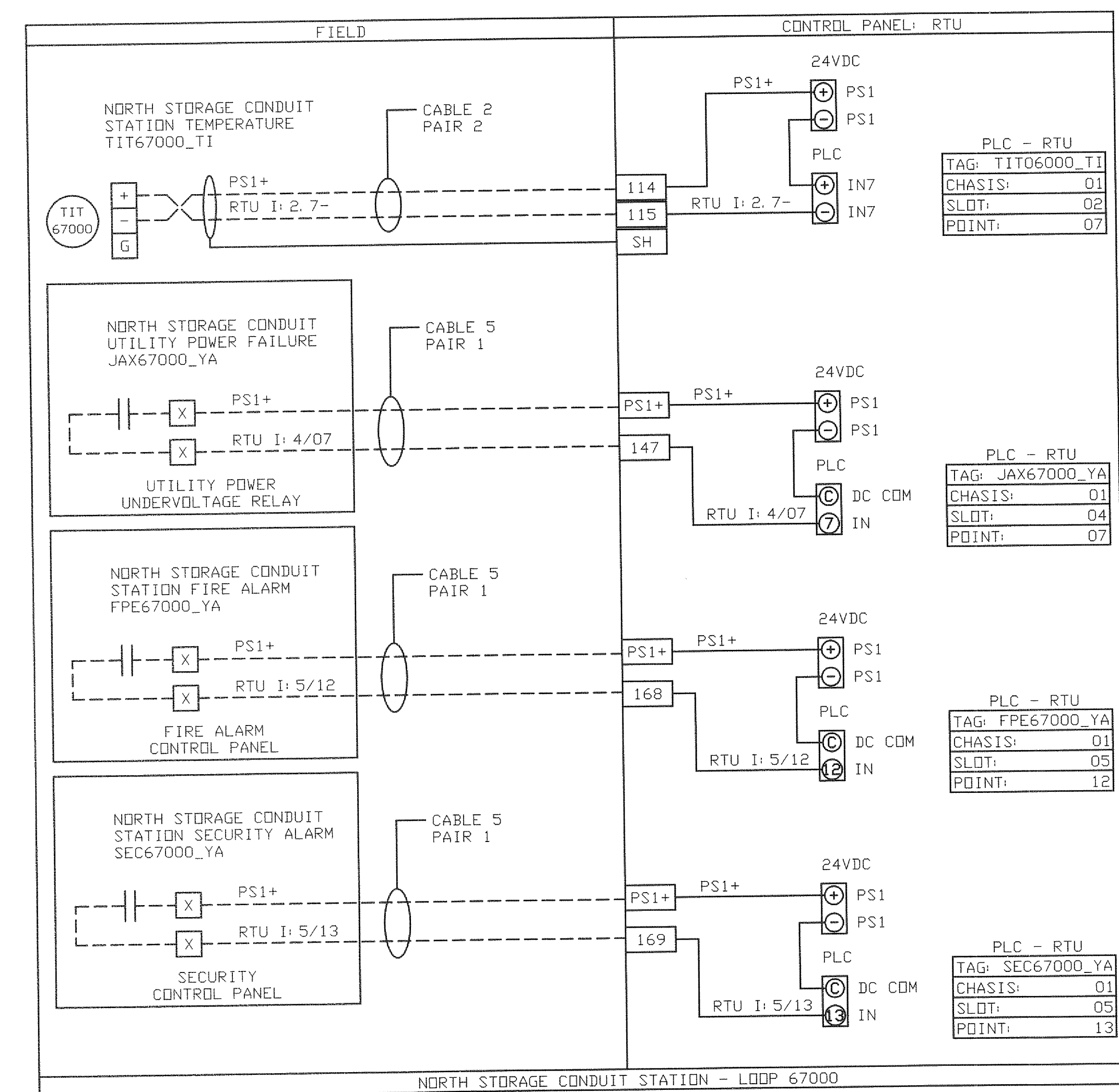
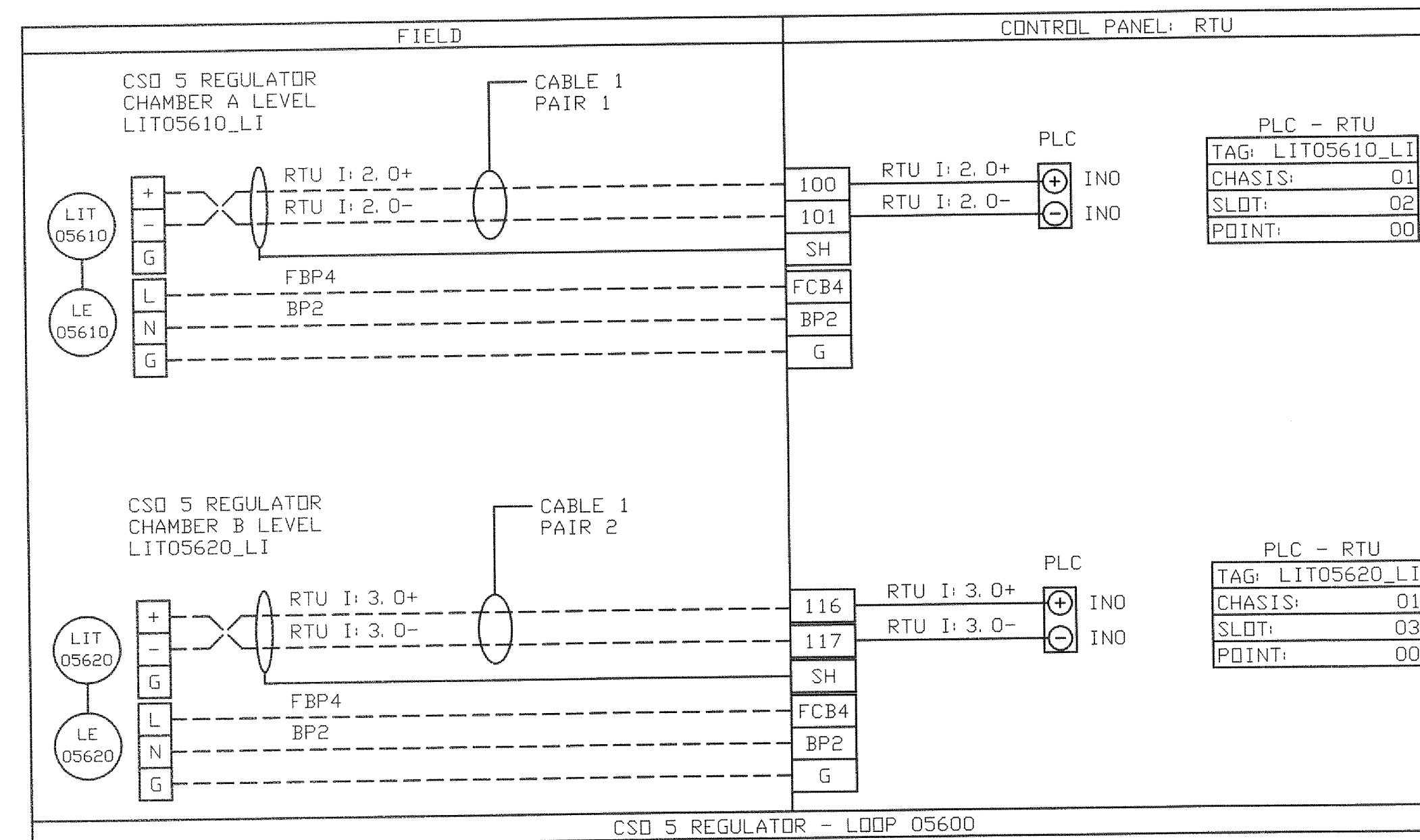
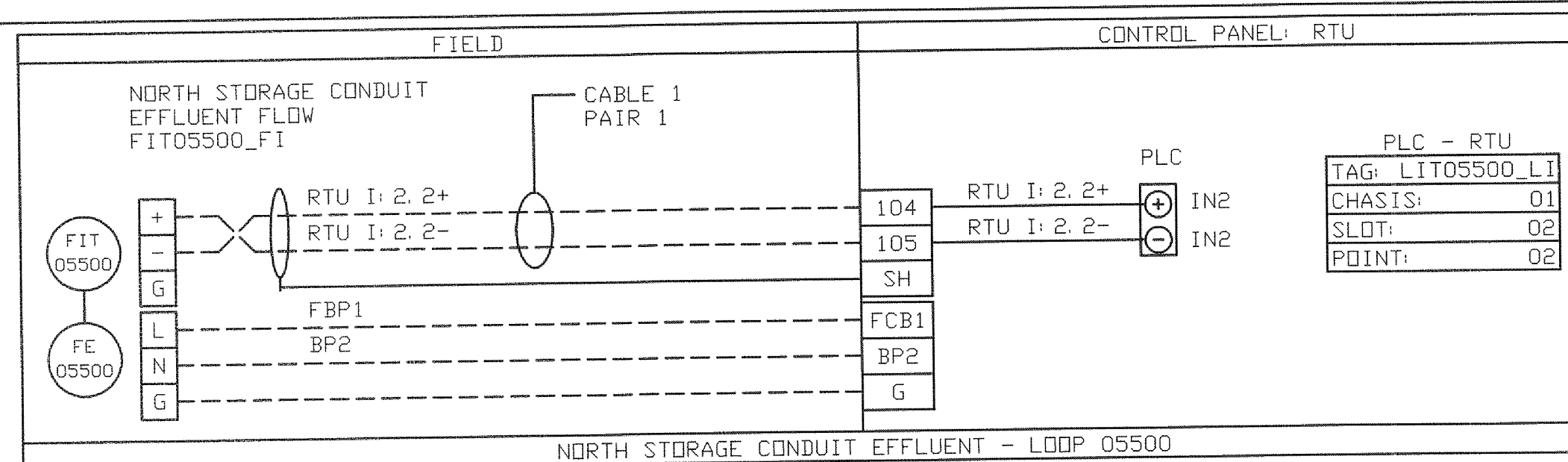
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DESIGNED BY: MAC	DRAWN BY: MAC	CHECKED BY: JG	SCALE: AS NOTED	DATE: 11-16-2012
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**BAXTER BOULEVARD
 NORTH STORAGE CONDUIT
 I/C
 LOOP DIAGRAMS**

CITY OF PORTLAND, MAINE
 PUBLIC SERVICES DEPARTMENT
 ENGINEERING DIVISION

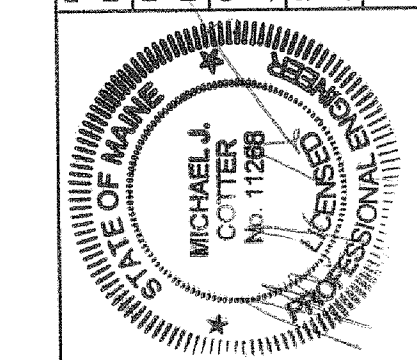
SHEET #
 40 OF 54
 PLAN NUMBER



LD0 PROJECT NAME:
BAXTER BOULEVARD
NORTH STORAGE CONDUIT
DRAWING NAME:
I/C Plan
FIELD BOOK USED:
N/A

REFERENCES:
Title Block.dwg

DESIGNED BY:
MIC
DRAWN BY:
MIC
CHECKED BY:
JG
SCALE:
AS NOTED
DATE:
11-16-2012



BAXTER BOULEVARD
NORTH STORAGE CONDUIT
I/C
LOOP DIAGRAMS

CITY OF PORTLAND, MAINE
PUBLIC SERVICES DEPARTMENT
ENGINEERING DIVISION

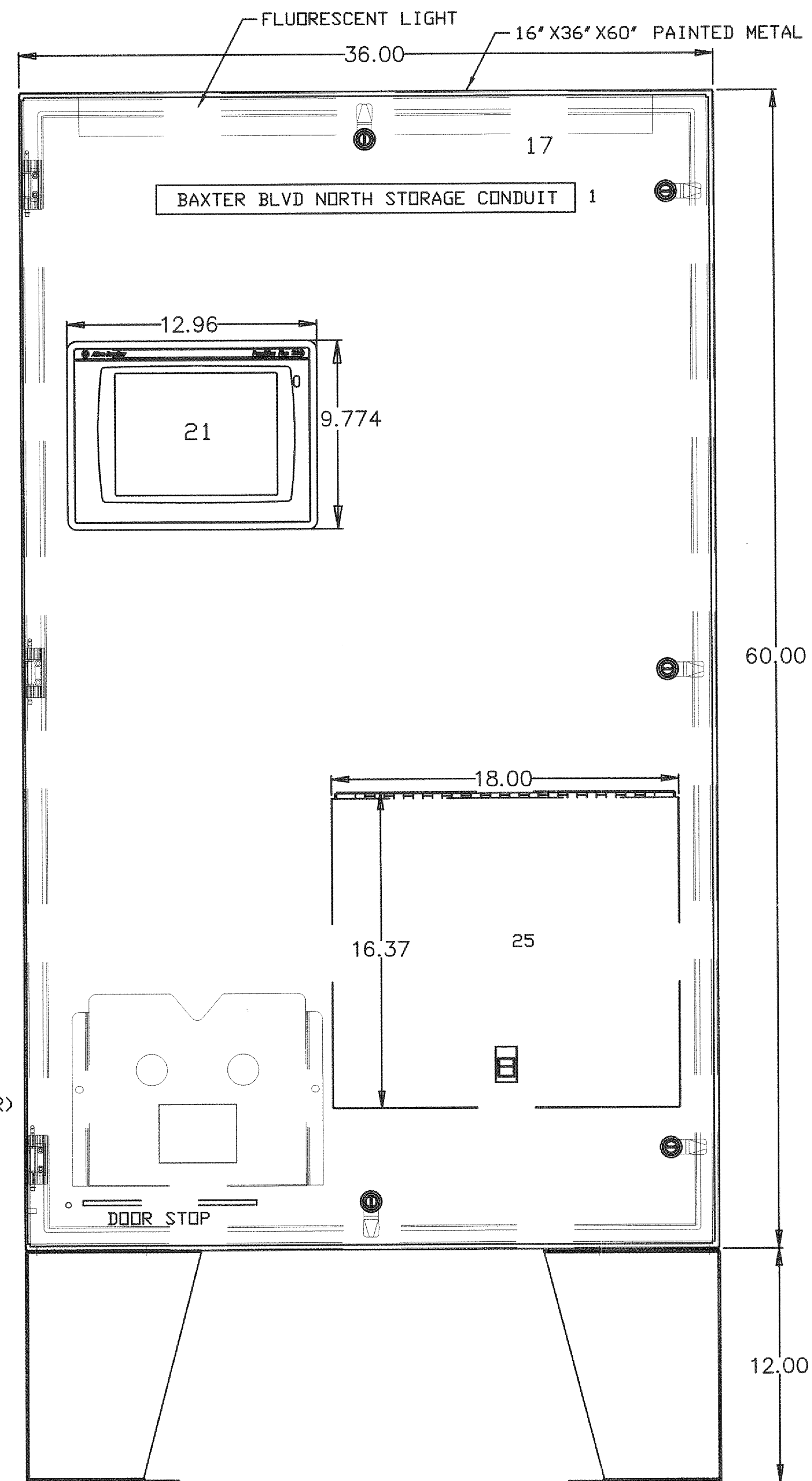


SHEET #
41 OF 54
PLAN NUMBER

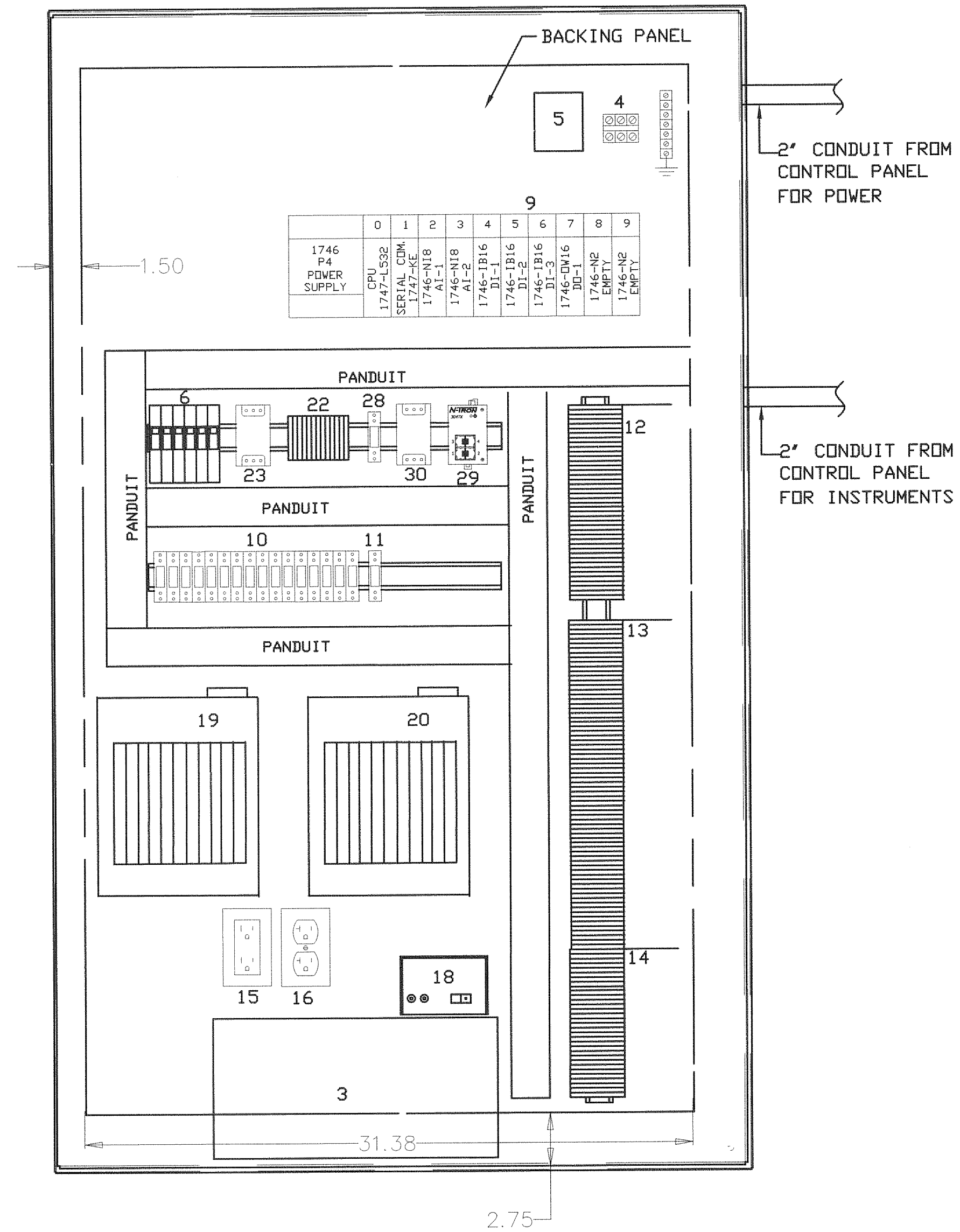
RTU PANEL LEGEND

ITEM DESCRIPTION

- 1 NAMEPLATE (SITE NAME)
- 3 UNINTERRUPTIBLE POWER SUPPLY
- 4 DISTRIBUTION BLOCK
- 5 SURGE ARRESTER
- 6 CIRCUIT BREAKERS
- 7
- 8 SURGE SUPPRESSOR
- 9 PROGRAMMABLE LOGIC CONTROLLER
- 10 CONTROL RELAYS (K0 THRU K15)
- 11 POWER FAIL RELAY
- 12 AI TERMINAL BLOCKS
- 13 DI TERMINAL BLOCKS
- 14 DO TERMINAL BLOCKS - 120V AC
- 15 RECEPTACLE - GFI - Utility
- 16 RECEPTACLE - UPS ONLY
- 17 UTILITY LIGHT
- 18 RADIO POWER SUPPLY
- 19 RADIO MODEM - PWD
- 20 RADIO MODEM - CITY OF PORTLAND
- 21 OPERATOR INTERFACE TERMINAL - DIT
- 22 TERMINAL BLOCKS - INSTR. POWER
- 23 I/O POWER SUPPLY - PS-1
- 24
- 25 LAPTOP PC FOLDING SHELF (MOUNTED ON THE INSIDE OF THE DOOR)
- 28 ATR RELAY
- 29 ETHERNET SWITCH
- 30 POWER SUPPLY FOR ETHERNET SWITCH



RTU CONTROL PANEL - ELEVATION
SCALE: NOT TO SCALE

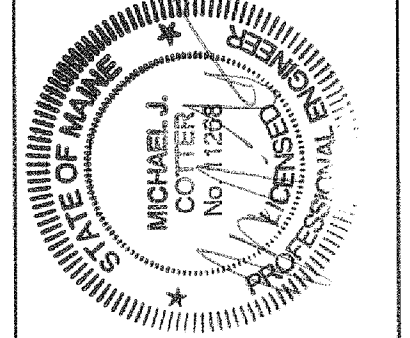


RTU CONTROL PANEL - INTERIOR LAYOUT
SCALE: NOT TO SCALE

LDD PROJECT NAME:
BAXTER BOULEVARD
NORTH STORAGE CONDUIT
DRAWING NAME:
I/C Plan
FIELD BOOK USED:
N/A

REFERENCES:
Title Block.dwg

DESIGNED BY:
MIC
DRAWN BY:
MIC
CHECKED BY:
JG
SCALE:
AS NOTED
DATE:
11-16-2012

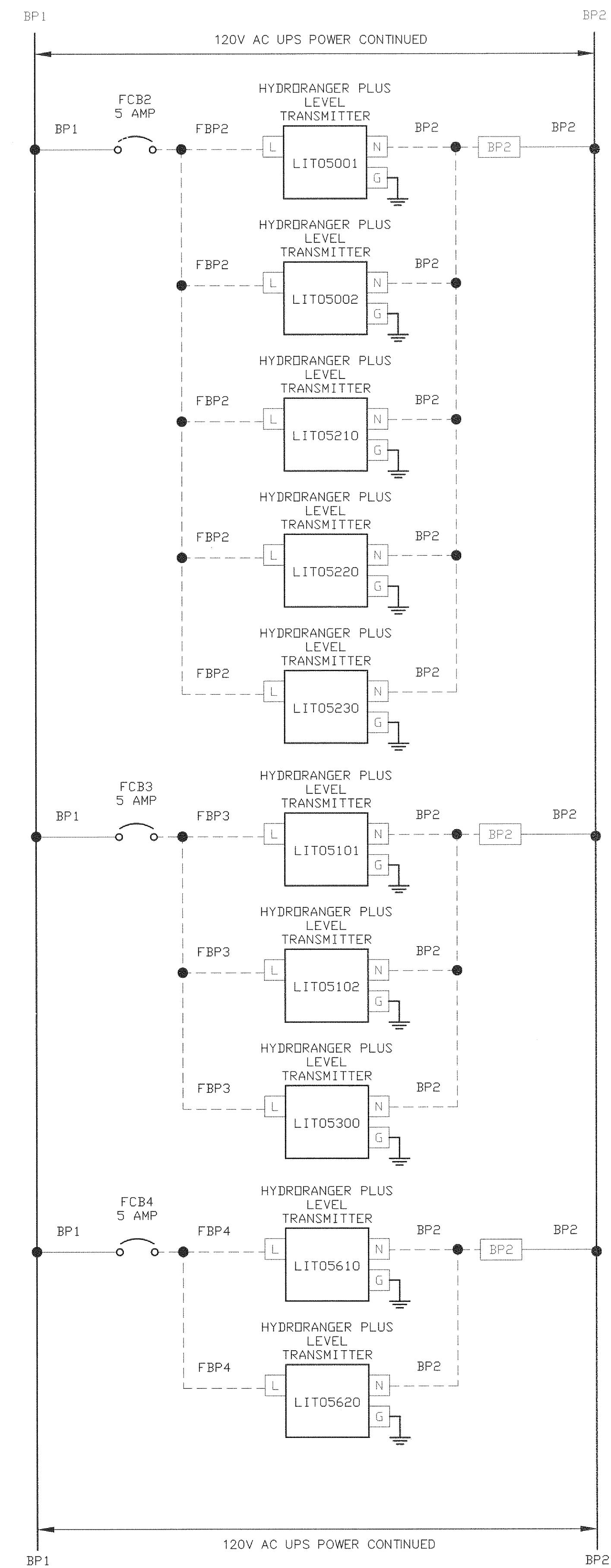
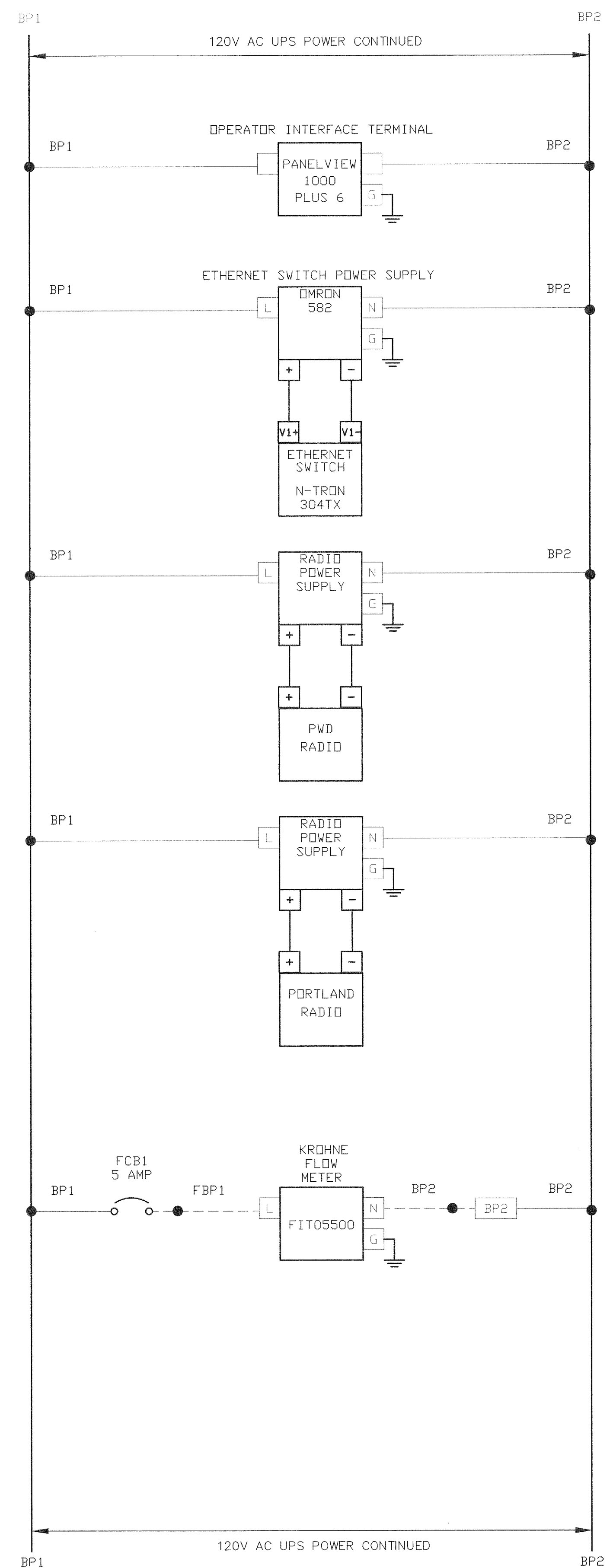
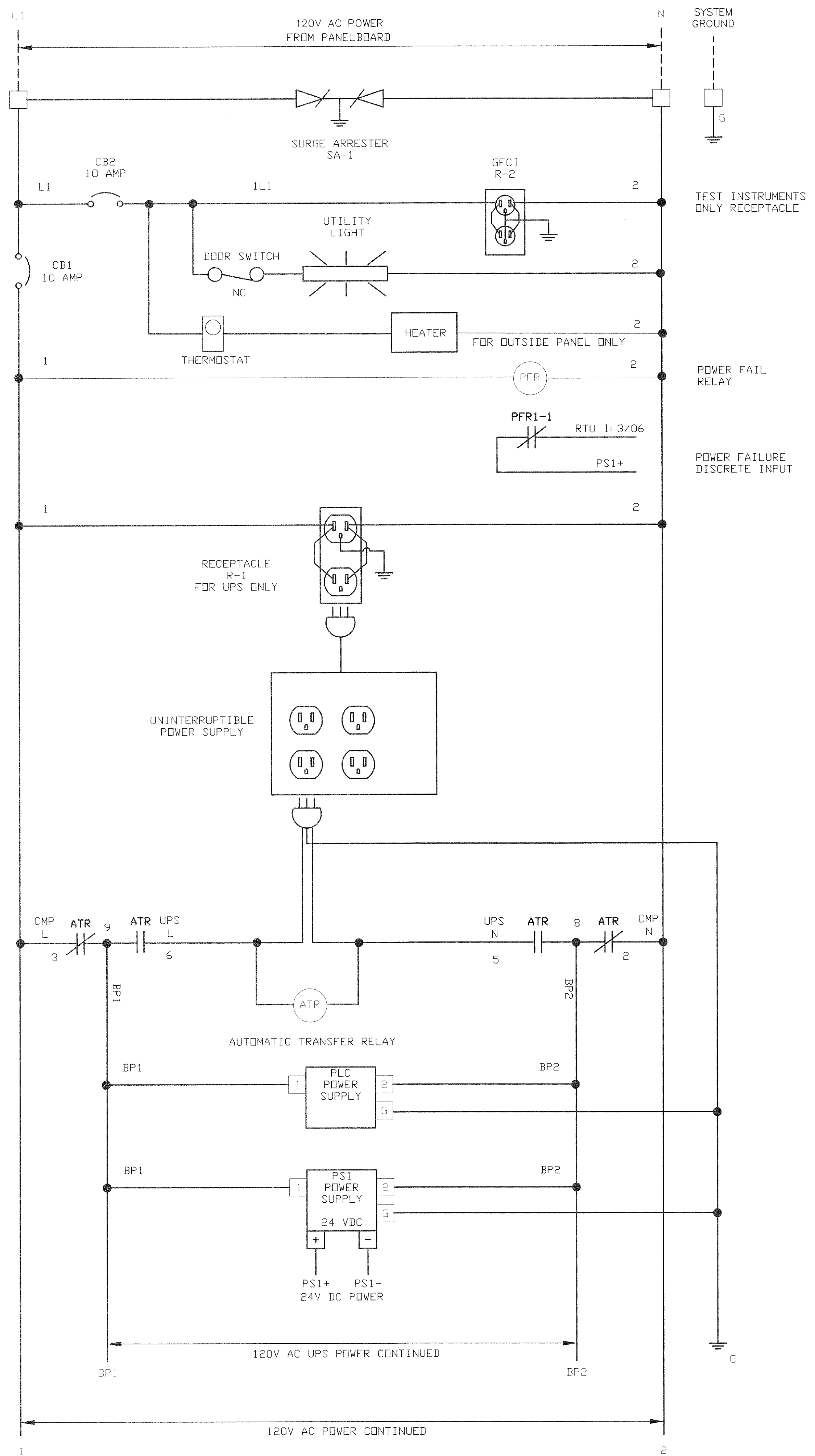


BAXTER BOULEVARD
NORTH STORAGE CONDUIT
I/C
CNTRL. CABINET LAYOUT

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PUBLIC SERVICES DEPARTMENT
ENGINEERING DIVISION



SHEET #
42 OF 54
PLAN NUMBER



LDD PROJECT NAME:
BAXTER BOULEVARD
NORTH STORAGE CONDUIT
DRAWING NAME:
IC Plan
FIELD BOOK USED:
N/A

REFERENCES:
Title Block.dwg

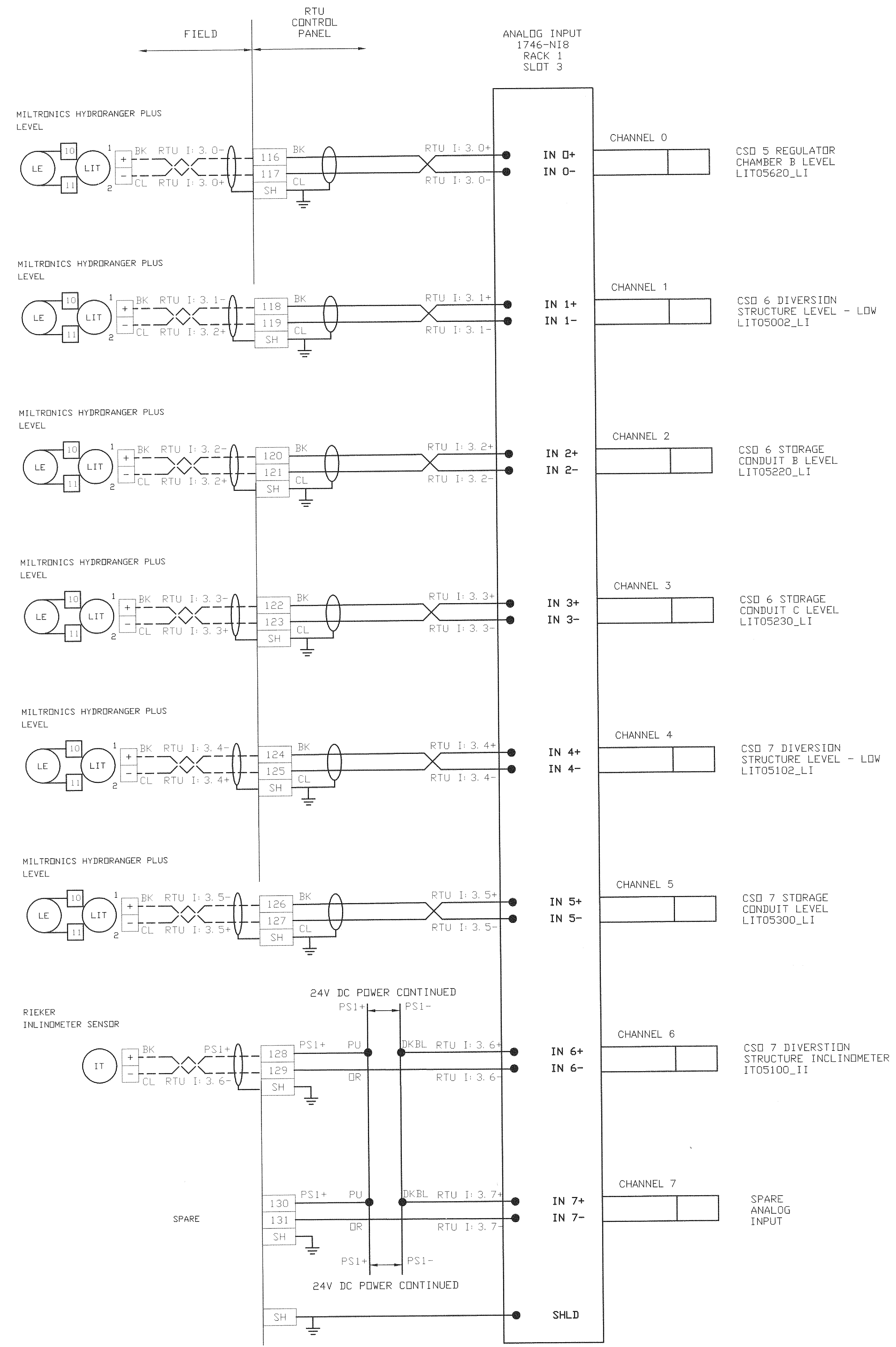
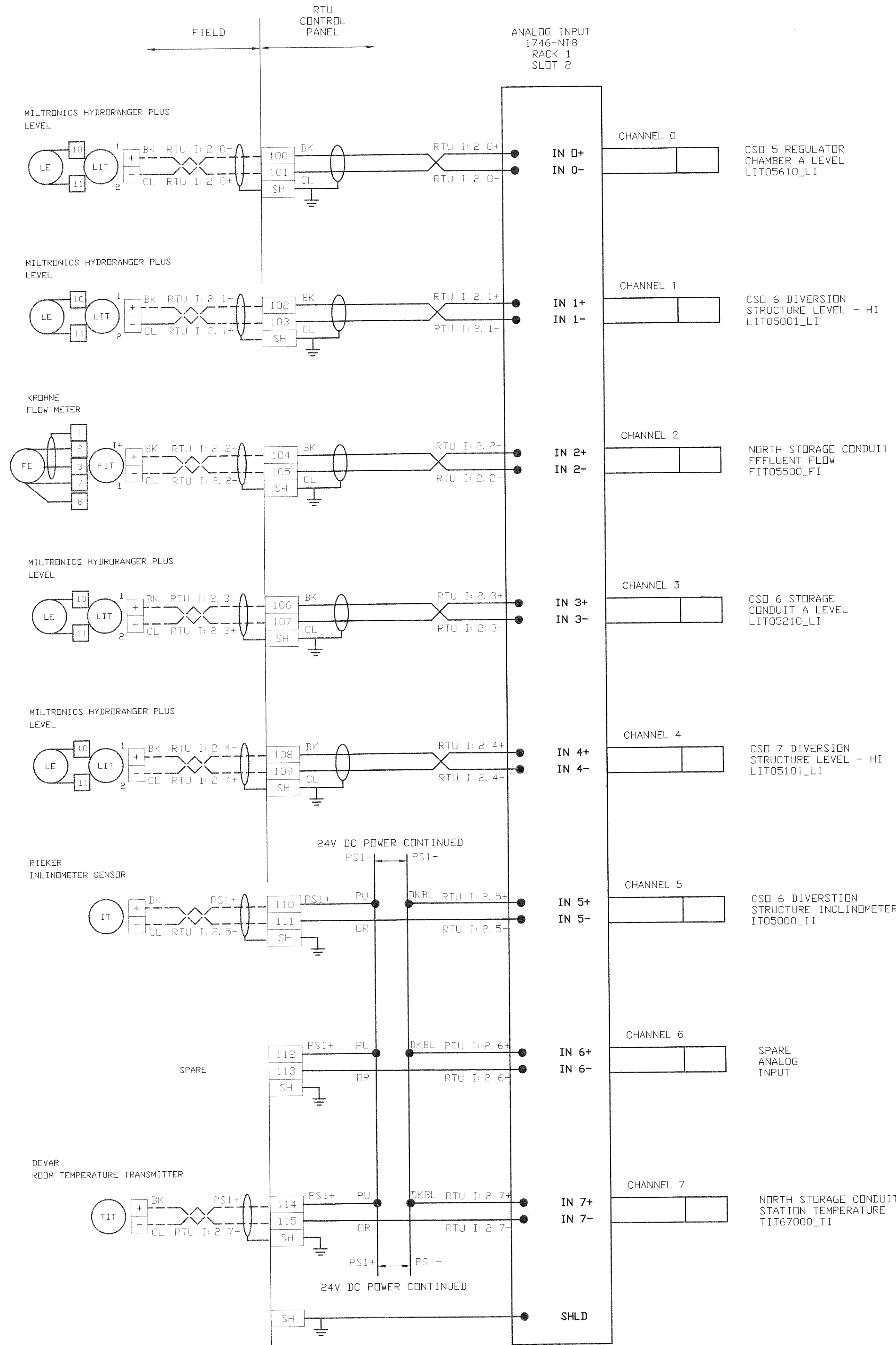
DESIGNED BY:	MIC	DATE:	11-16-2012
DRAWN BY:	MIC	SCALE:	
CHECKED BY:	JG	AS NOTED:	

STATE OF MAINE
MICHAEL J. COTTER
No. 11298
PROFESSIONAL ENGINEER

BAXTER BOULEVARD
NORTH STORAGE CONDUIT
I/C
CNTRL. CABINET POWER DIST.

CITY OF PORTLAND, MAINE
PUBLIC SERVICES DEPARTMENT
ENGINEERING DIVISION

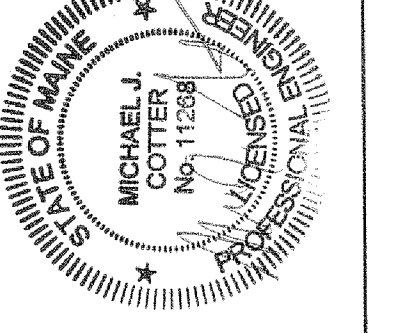
SHEET #
43 OF 54
PLAN NUMBER



LDD PROJECT NAME:
 BAXTER BOULEVARD
 NORTH STORAGE CONDUIT
 DRAWING NAME:
 IC Pln
 FIELD BOOK USED:
 N/A

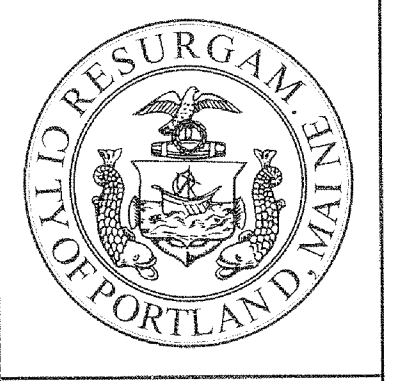
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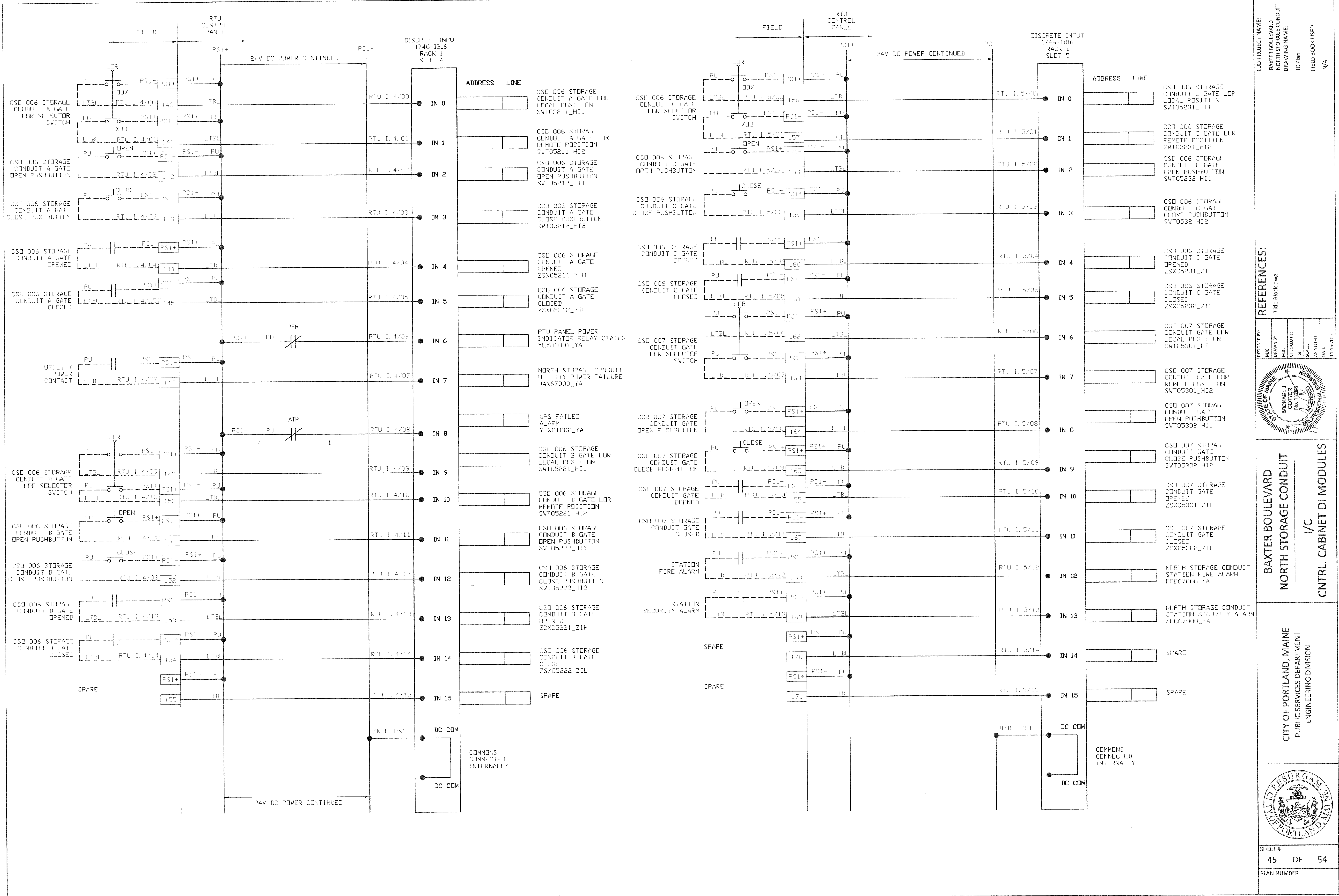
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DRAWN BY:	SCALE:
CHECKED BY:	AS NOTED
IN CHARGE:	11-16-2012



**BAXTER BOULEVARD
 NORTH STORAGE CONDUIT**
 I/C
CNTRL. CABINET AI MODULES

CITY OF PORTLAND, MAINE
 PUBLIC SERVICES DEPARTMENT
 ENGINEERING DIVISION





LOD PROJECT NAME: BAXTER BOULEVARD NORTH STORAGE CONDUIT
 DRAWING NAME: IC Plan
 FIELD BOOK USED: N/A

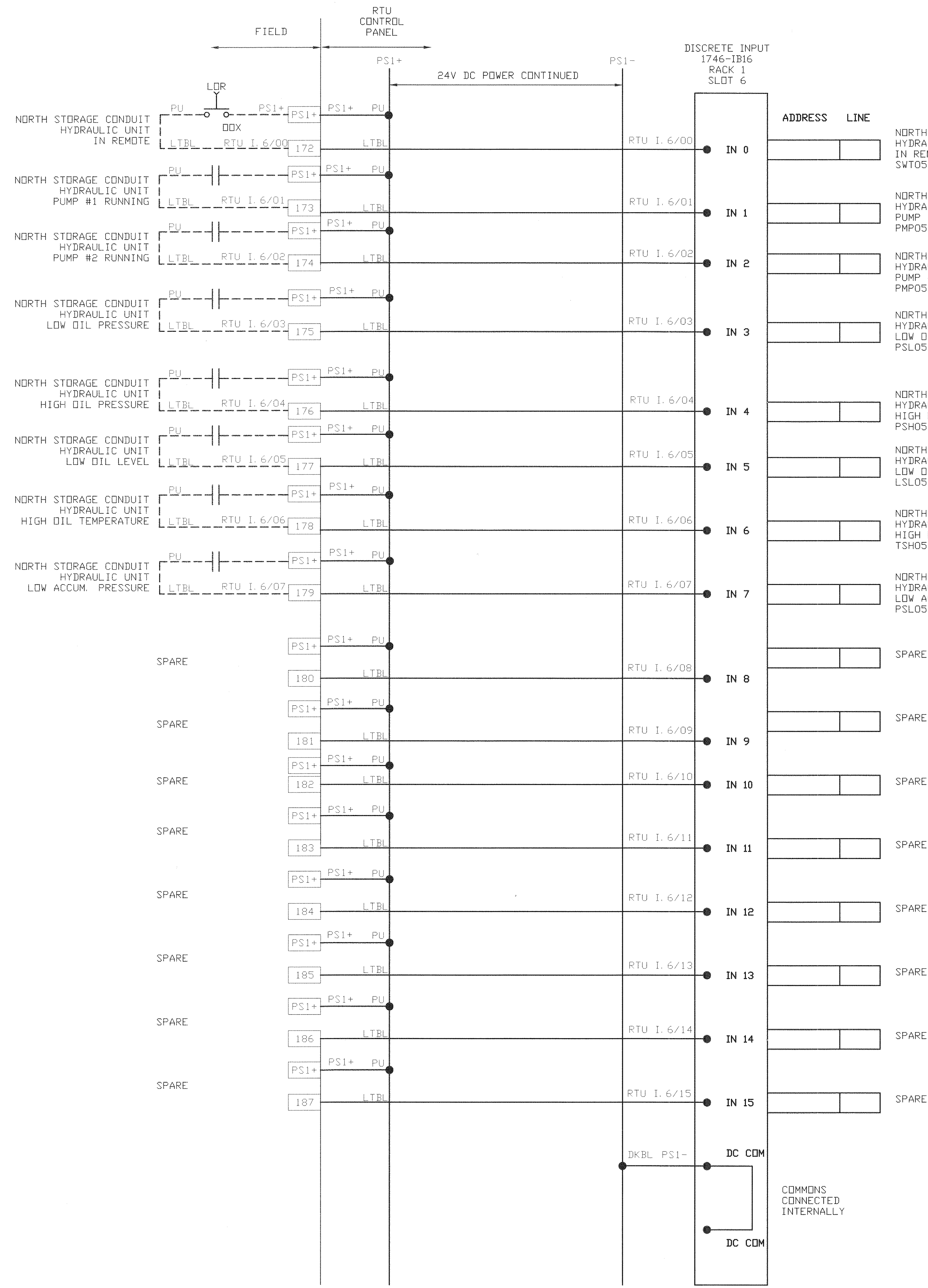
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DESIGNED BY: MIC	DRAWN BY: MIC	CHECKED BY: JG	SCALE: AS NOTED	DATE: 11-16-2012
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**BAXTER BOULEVARD
 NORTH STORAGE CONDUIT**
 I/C
CNTRL. CABINET DI MODULES

CITY OF PORTLAND, MAINE
 PUBLIC SERVICES DEPARTMENT
 ENGINEERING DIVISION

SHEET # 45 OF 54
 PLAN NUMBER

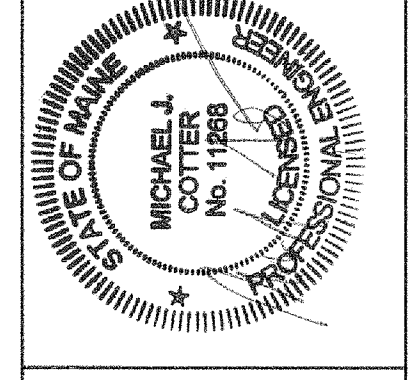


ADDRESS	LINE	DESCRIPTION
IN 0		NORTH STORAGE CONDUIT HYDRAULIC UNIT IN REMOTE SWT05400_HI
IN 1		NORTH STORAGE CONDUIT HYDRAULIC UNIT PUMP #1 RUNNING PMP05401_YI
IN 2		NORTH STORAGE CONDUIT HYDRAULIC UNIT PUMP #2 RUNNING PMP05402_YI
IN 3		NORTH STORAGE CONDUIT HYDRAULIC UNIT LOW OIL PRESSURE PSL05401_PAL
IN 4		NORTH STORAGE CONDUIT HYDRAULIC UNIT HIGH OIL PRESSURE PSH05400_PAH
IN 5		NORTH STORAGE CONDUIT HYDRAULIC UNIT LOW OIL PRESSURE LSL05400_LAL
IN 6		NORTH STORAGE CONDUIT HYDRAULIC UNIT HIGH OIL TEMPERATURE TSH05400_TAH
IN 7		NORTH STORAGE CONDUIT HYDRAULIC UNIT LOW ACCUM. PRESSURE PSL05402_PAL
IN 8		SPARE
IN 9		SPARE
IN 10		SPARE
IN 11		SPARE
IN 12		SPARE
IN 13		SPARE
IN 14		SPARE
IN 15		SPARE

LDD PROJECT NAME:
 BAXTER BOULEVARD
 NORTH STORAGE CONDUIT
 DRAWING NAME:
 I/C Plan
 FIELD BOOK USED:
 N/A

REFERENCES:
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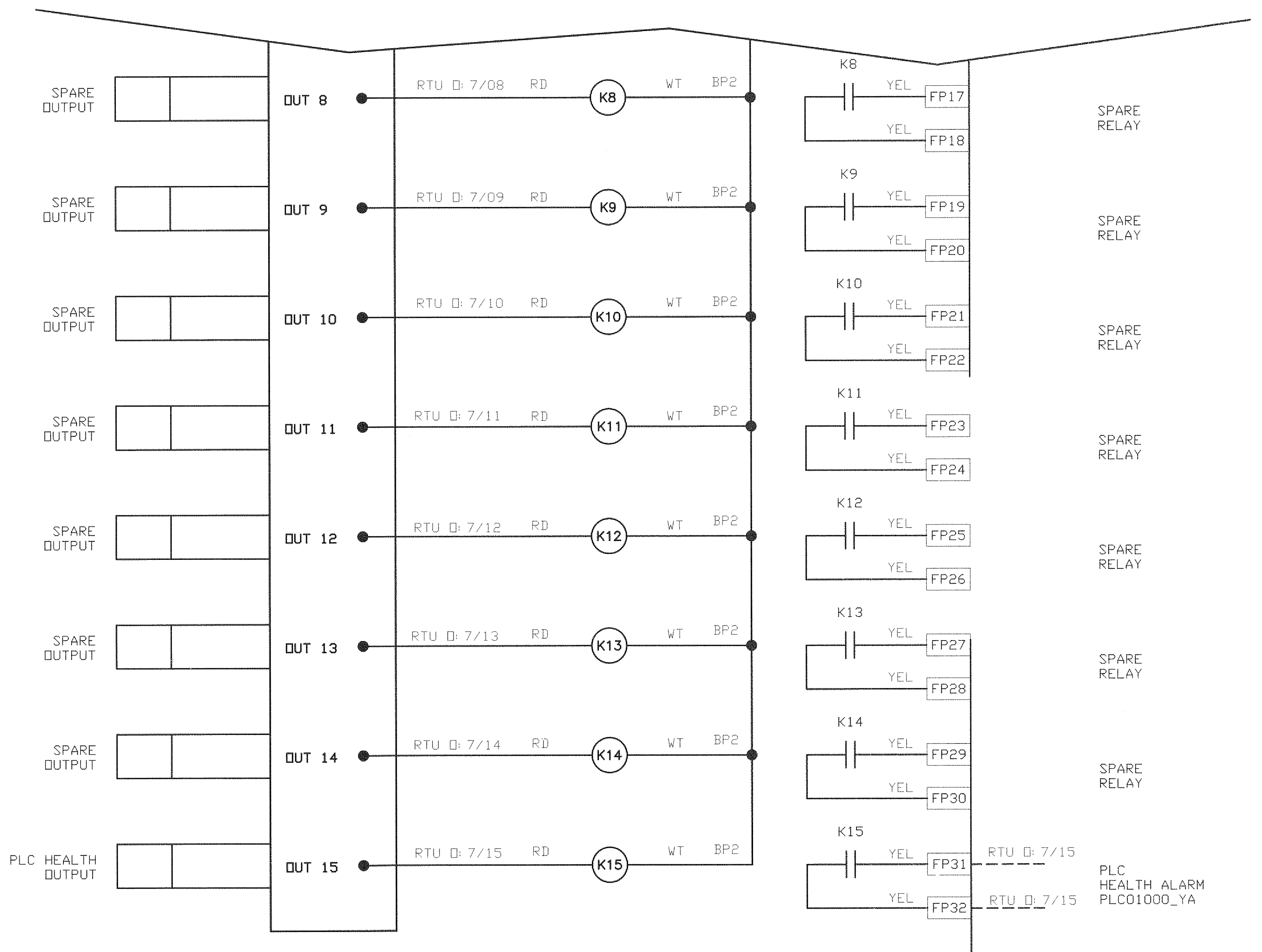
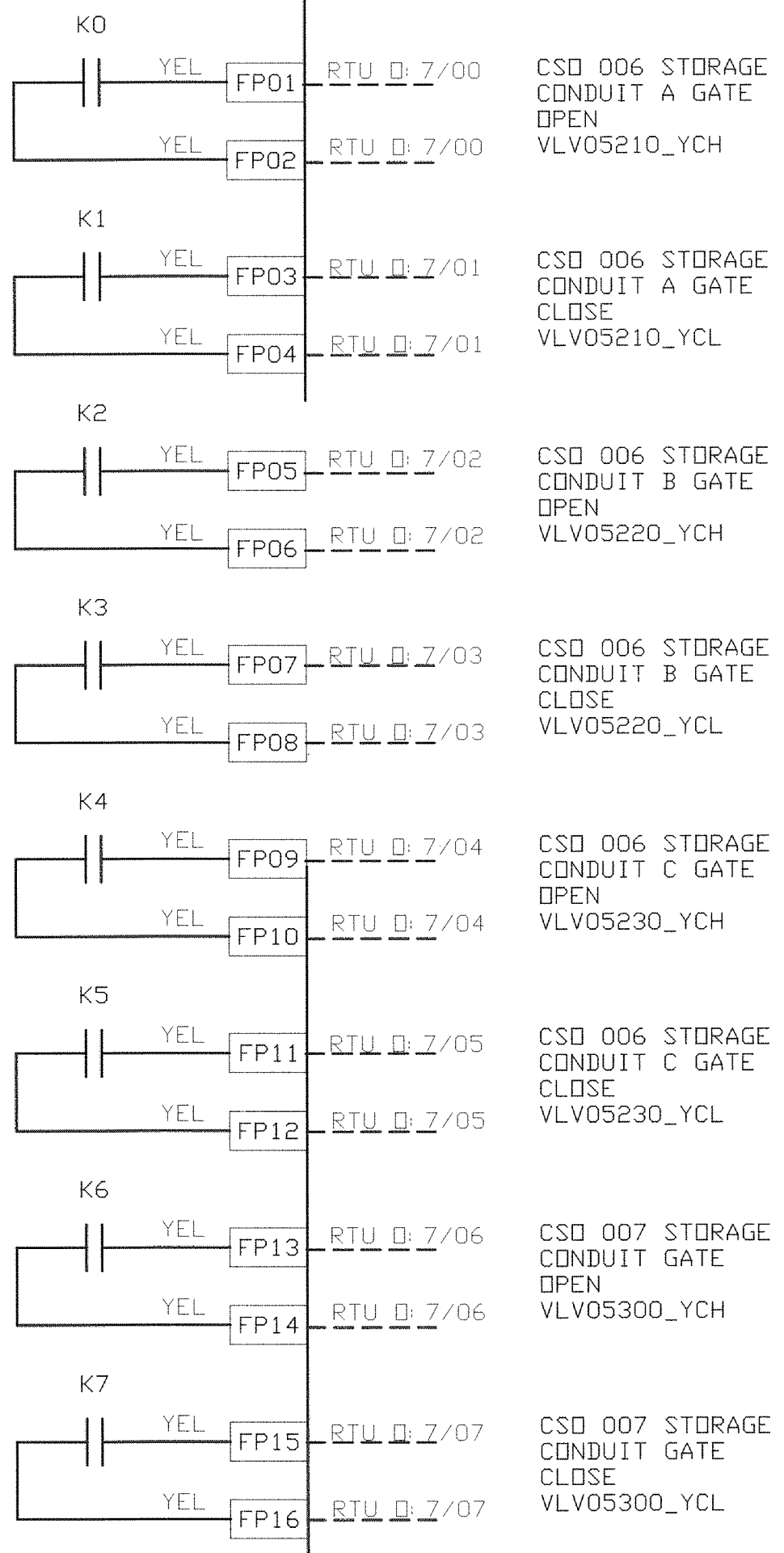
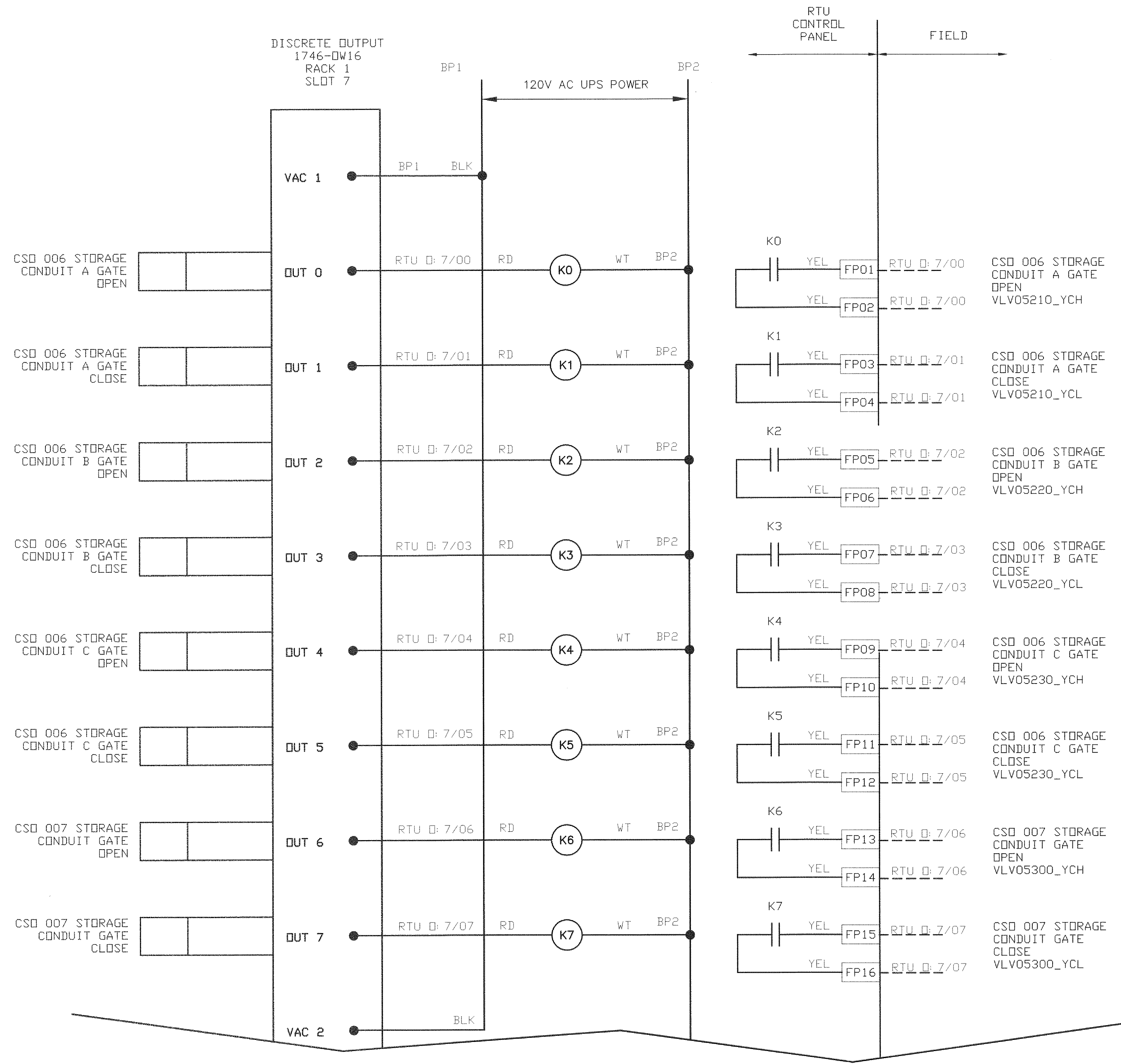
DESIGNED BY:	DATE:
DRAWN BY:	SCALE:
CHECKED BY:	AS NOTED
DATE:	11-16-2012



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 NORTH STORAGE CONDUIT
 I/C
 CNTRL. CABINET DI MODULES

CITY OF PORTLAND, MAINE
 PUBLIC SERVICES DEPARTMENT
 ENGINEERING DIVISION

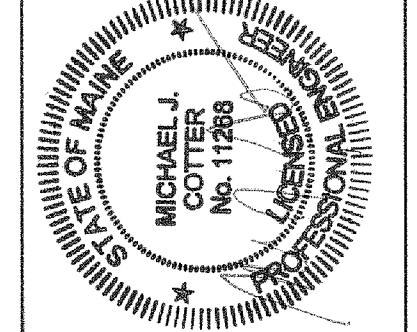




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BAXTER BOULEVARD
NORTH STORAGE CONDUIT
DRAWING NAME:
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FIELD BOOK USED:
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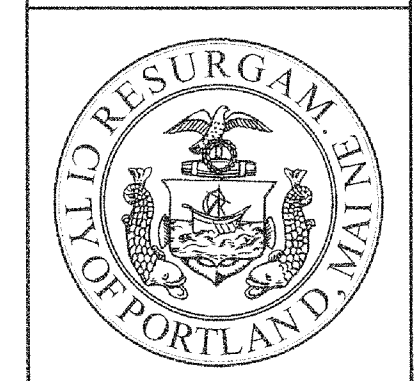
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SCALE:
AS NOTED
DATE:
11-16-2012

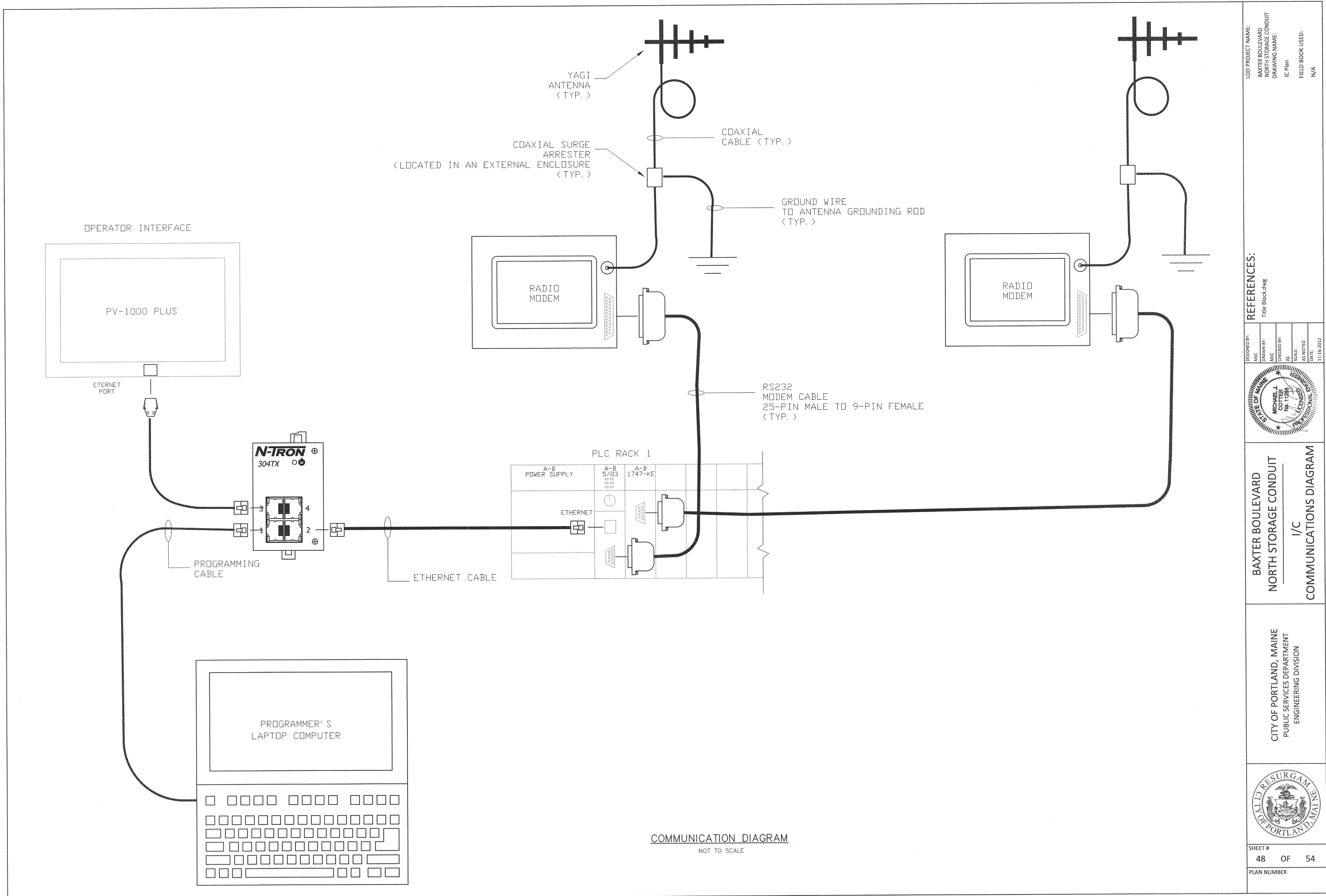


BAXTER BOULEVARD
NORTH STORAGE CONDUIT
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CNTRL. CABINET DO MODULES

CITY OF PORTLAND, MAINE
PUBLIC SERVICES DEPARTMENT
ENGINEERING DIVISION



SHEET #
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PLAN NUMBER



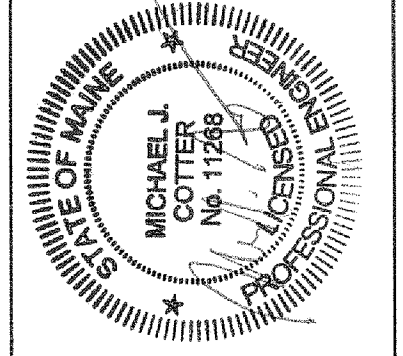
COMMUNICATION DIAGRAM

NOT TO SCALE

LDD PROJECT NAME:
 BAXTER BOULEVARD
 NORTH STORAGE CONDUIT
 DRAWING NAME:
 I/C Plan
 FIELD BOOK USED:
 N/A

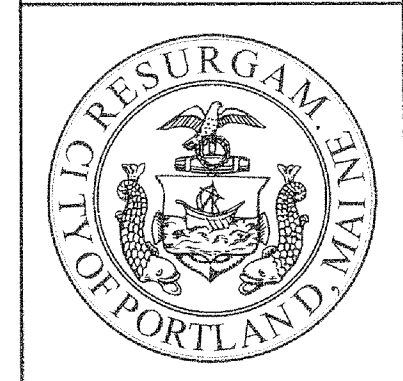
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 DESIGNED BY:
 MIC
 DRAWN BY:
 MIC
 CHECKED BY:
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 SCALE:
 AS NOTED
 DATE:
 11-16-2012

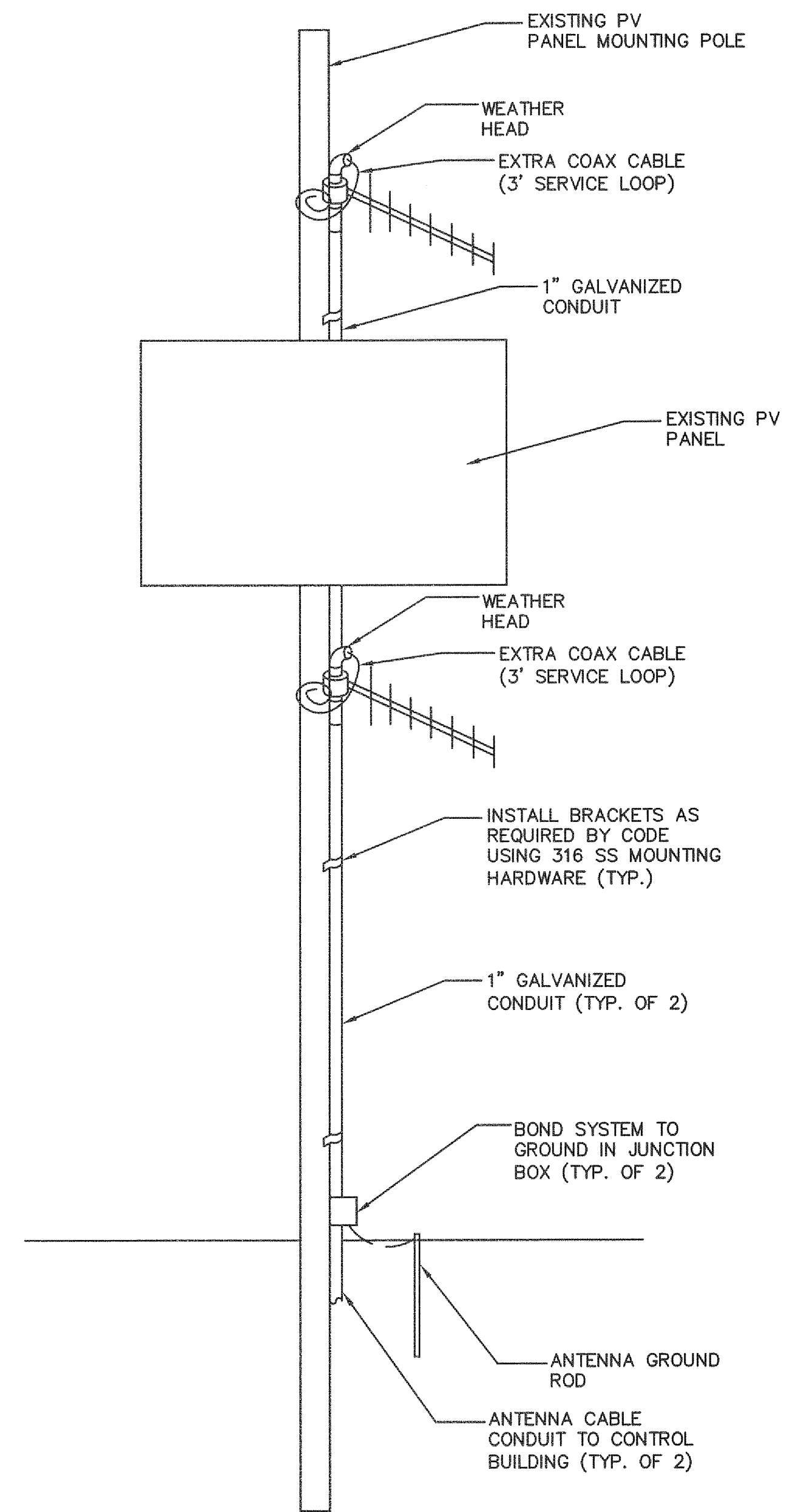


BAXTER BOULEVARD
 NORTH STORAGE CONDUIT
 I/C
 COMMUNICATIONS DIAGRAM

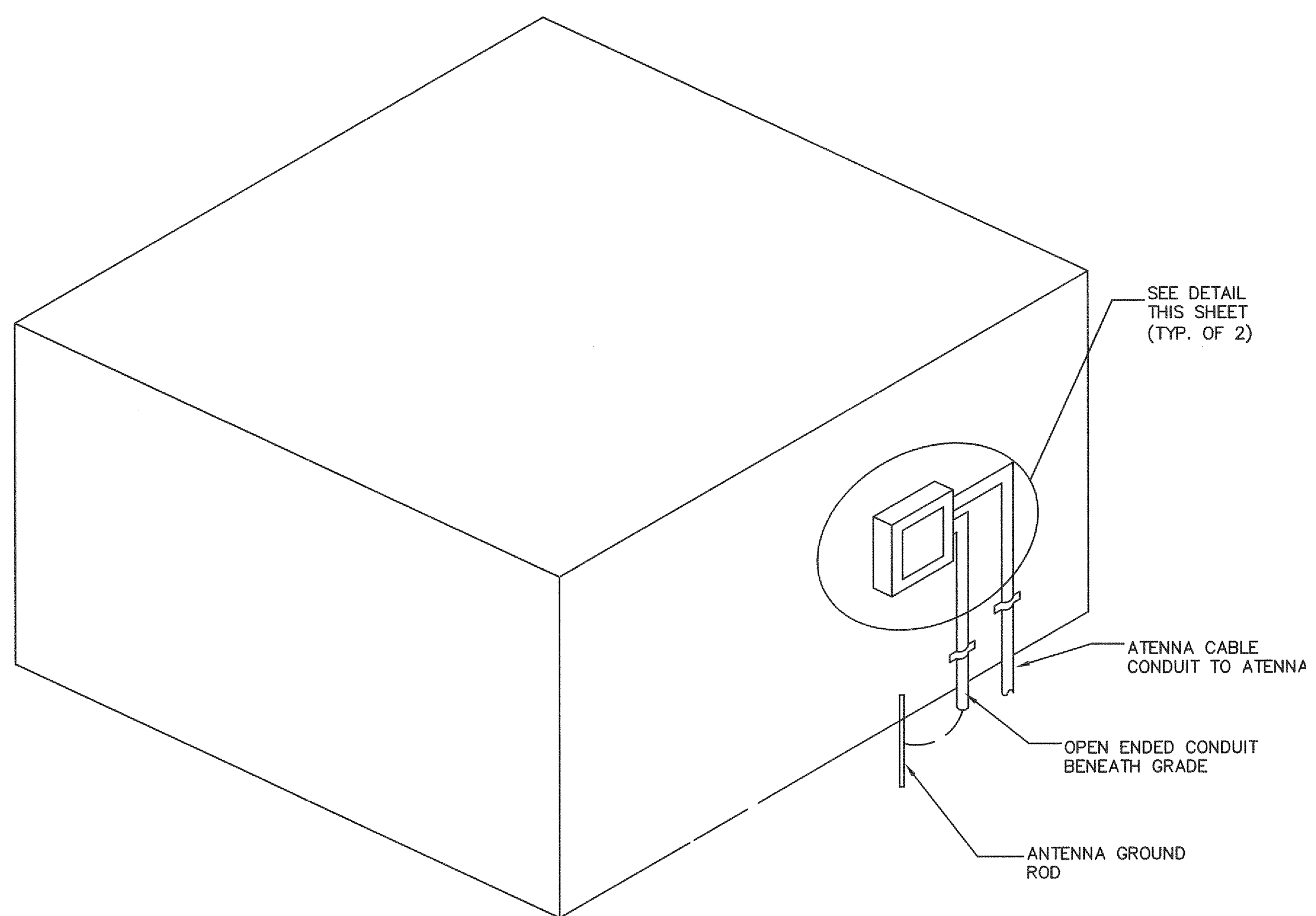
CITY OF PORTLAND, MAINE
 PUBLIC SERVICES DEPARTMENT
 ENGINEERING DIVISION



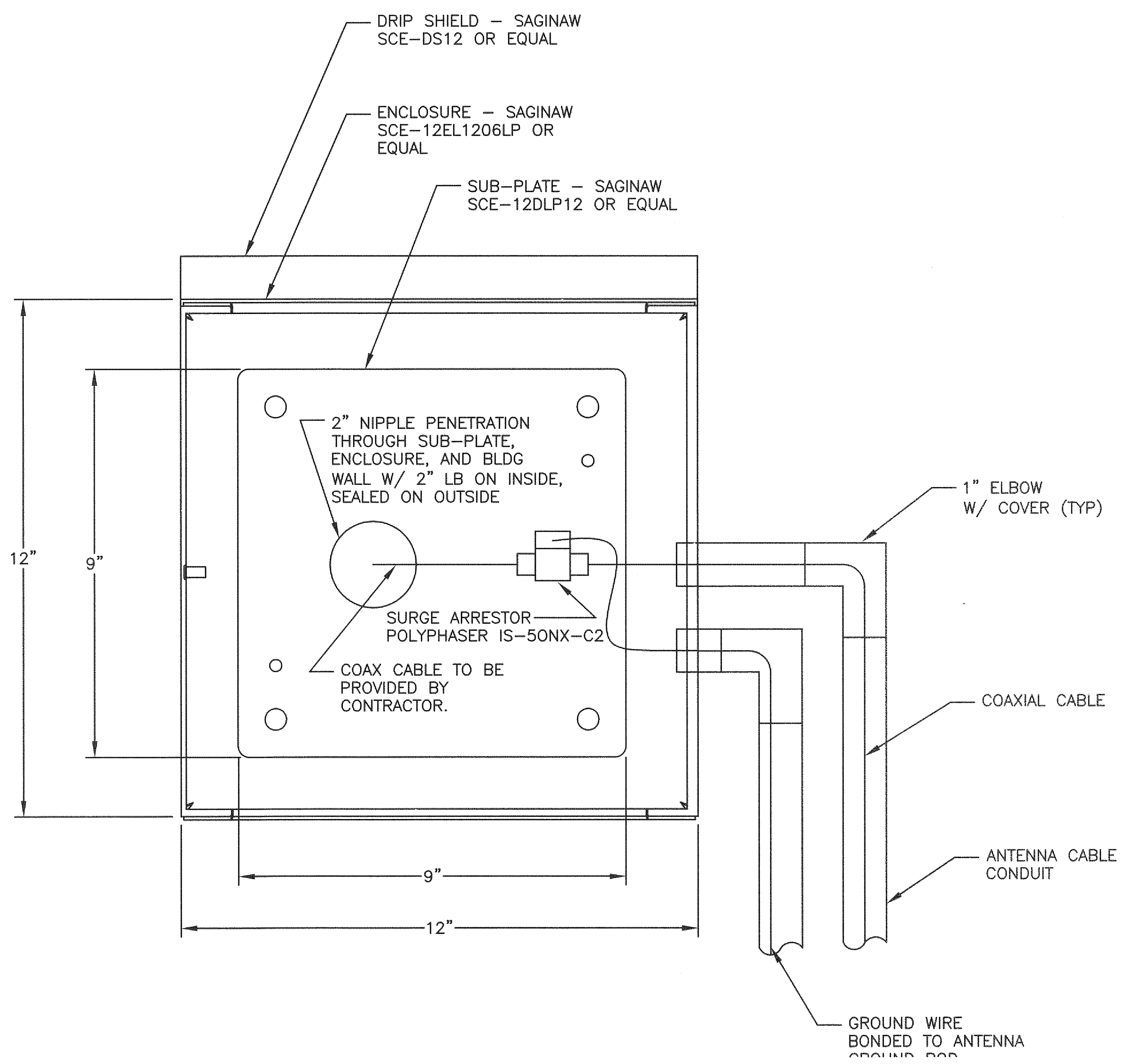
SHEET #
 48 OF 54
 PLAN NUMBER



ANTENNA MOUNTING DETAIL
NOT TO SCALE



ANTENNA DETAIL AT CONTROL BUILDING
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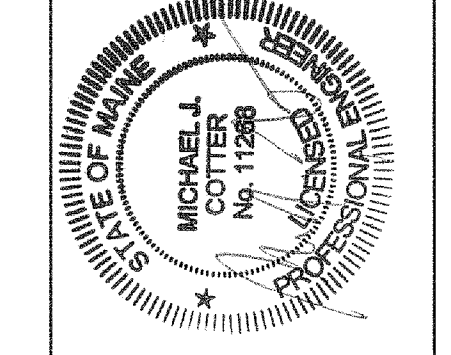


ANTENNA CABLE JUNCTION BOX
NOT TO SCALE

LDD PROJECT NAME:
BAXTER BOULEVARD
NORTH STORAGE CONDUIT
DRAWING NAME:
IC Plan
FIELD BOOK USED:
N/A

REFERENCES:
Title Block.dwg

DESIGNED BY: MIC
DRAWN BY: MIC
CHECKED BY: JG
SCALE: AS NOTED
DATE: 11-16-2012



BAXTER BOULEVARD
NORTH STORAGE CONDUIT
I/C
ANTENNA MOUNTING

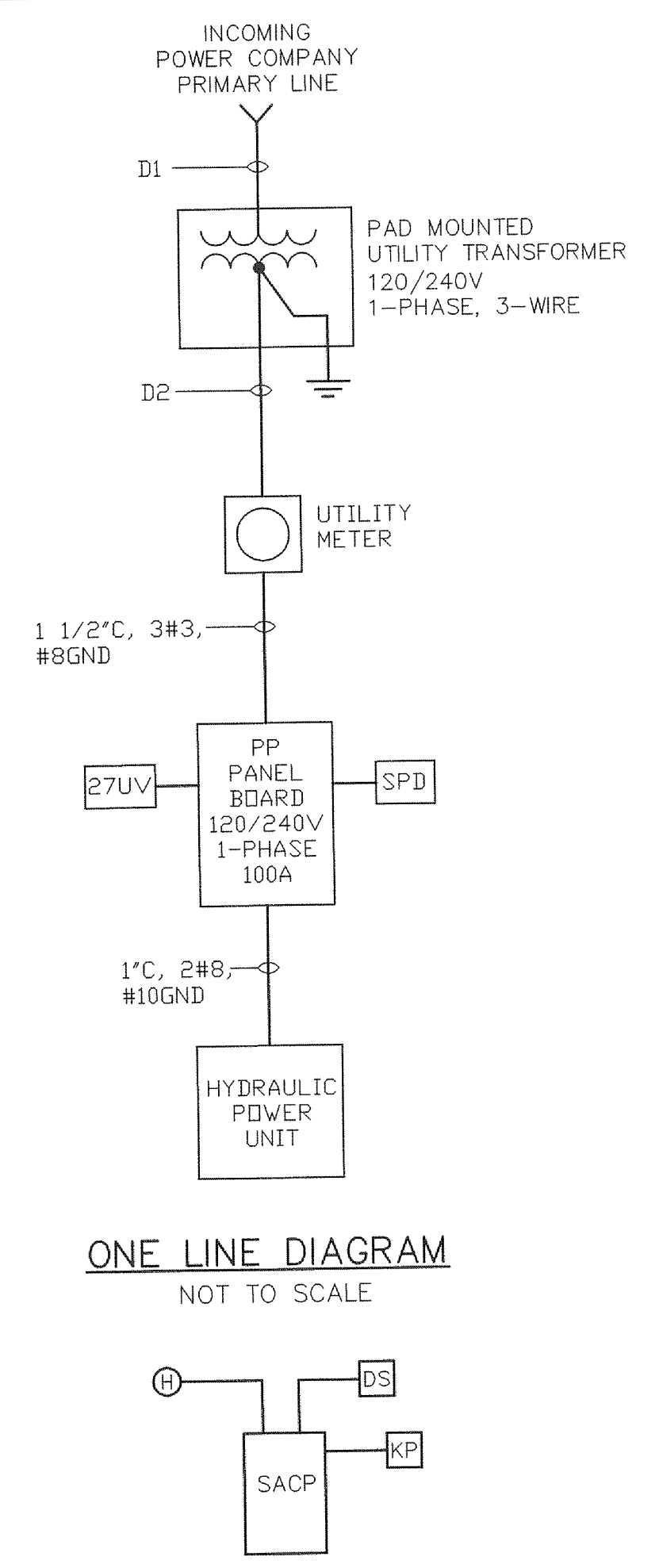
CITY OF PORTLAND, MAINE
PUBLIC SERVICES DEPARTMENT
ENGINEERING DIVISION



SHEET #
49 OF 54
PLAN NUMBER

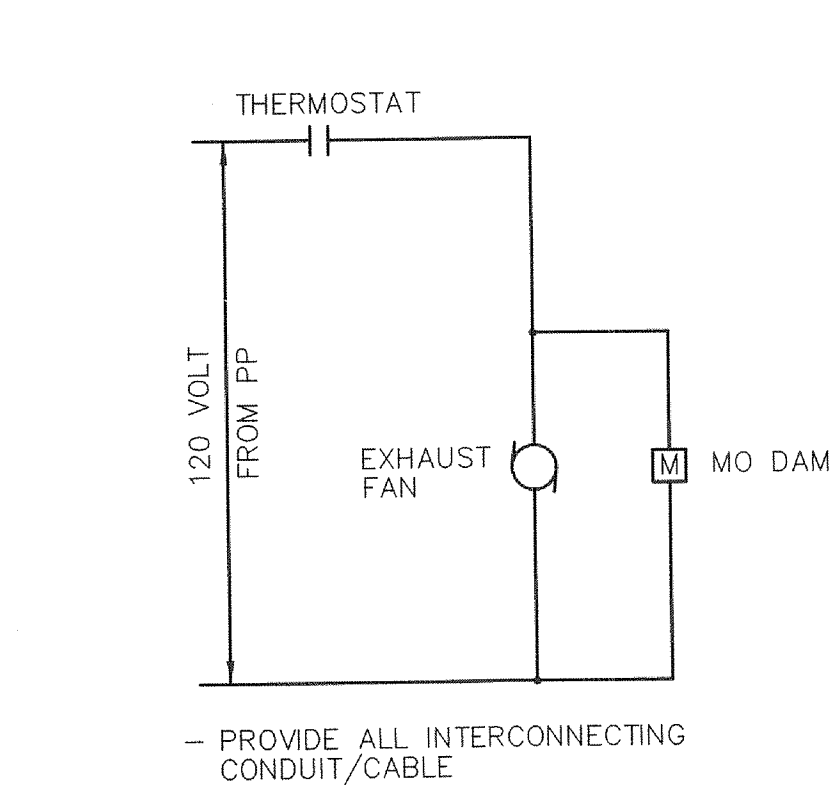
ELECTRICAL LEGEND

	CEILING MOUNTED LIGHTING FIXTURES. "F1" INDICATES FIXTURE TYPE, (TYP. FOR ALL FIXTURES) "1" INDICATES CIRCUIT NUMBER, (TYP. FOR ALL FIXTURES) "0" INDICATES THE SWITCH CONTROL, (TYP. FOR ALL FIXTURES)
	WALL MOUNTED LIGHTING FIXTURE, MOUNTED 10'-0" ABOVE FINISHED GRADE.
	CEILING MOUNTED LIGHTING FIXTURE.
	EMERGENCY EXIT SIGN
	EMERGENCY LIGHTING BATTERY UNIT WITH TWO LIGHT HEADS "ELU-1" INDICATES DESIGNATION
	SINGLE POLE SWITCH 120V, 20A "0" INDICATES THE SWITCH CONTROL
	DUPLEX RECEPTACLE SPEC. GRADE WEATHER-RESISTANT 120V, 20A WITH WEATHERPROOF COVER
	EXPLOSION PROOF RECEPTACLE, CLASS I DIV. 2 RATED WEATHER-RESISTANT 120V, 20A.
	TRANSFORMER
	MOTOR, "10" INDICATES HORSEPOWER RATING
	SURGE PROTECTION DEVICE
	UNDERTVOLTAGE RELAY
	UNFUSED DISCONNECT SWITCH 30A, 3P
	JUNCTION BOX
	MANUAL MOTOR STARTER 120V, 20A
	MAGNETIC DOOR SWITCH
	KEY PAD
	HEAT DETECTOR, COMBINATION RATE-OF-RISE AND FIXED TEMPERATURE
	THERMOSTAT 120V, 20A (BY OTHERS)
	3/4" x 10'-0" COPPER CLAD GROUND ROD
	EXHAUST FANS (BY OTHERS)
	MOTOR OPERATED DAMPER (BY OTHERS)
	HOMERUN TO PANELBOARD OR OTHER EQUIPMENT WITH THE FOLLOWING CONDUIT/WIRES UNLESS OTHERWISE NOTED: • 3/4" CONDUIT WITH 2#12, 1#12GND FOR 20AMP SINGLE PHASE CIRCUITS. • 3/4" CONDUIT WITH 2#10, 1#10GND FOR 30AMP SINGLE PHASE CIRCUITS.
	UTILITY TRANSFORMER
	UNDERGROUND PULLBOX • "U" INDICATES PULLBOX TO BE UTILITY PRIMARY TYPE • "P" INDICATES SEPARATE PULLBOX FOR POWER CONDUCTORS • "I" INDICATES SEPARATE PULLBOX FOR I/C CONDUCTORS
	UTILITY POLE
	G OR GND GROUND
	TSP TWISTED SHIELDED PAIR



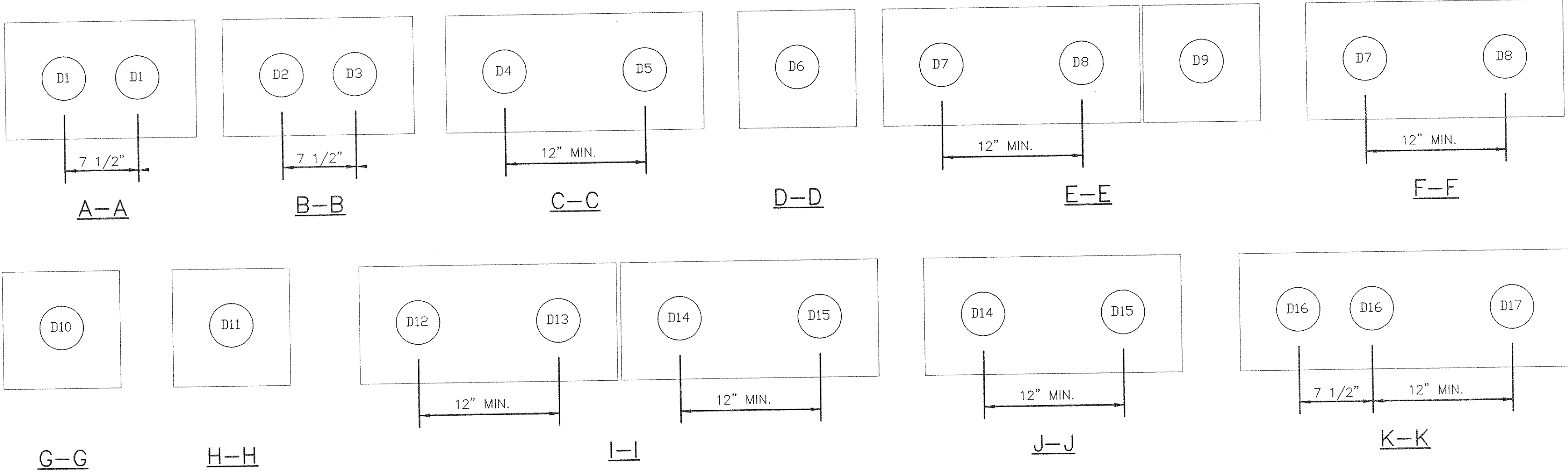
- NOTES:**
- MINIMUM SIZE CONDUIT SHALL BE 3/4" UNLESS NOTED OTHERWISE.
 - SYSTEM CONDUIT/CABLING SHALL BE INSTALLED IN ACCORDANCE WITH EQUIPMENT SUPPLIERS APPROVED SHOP DRAWINGS AND WIRING DIAGRAMS.

SECURITY SYSTEM RISER DIAGRAM
NOT TO SCALE



EXHAUST FAN WIRING DIAGRAM
NOT TO SCALE

DUCT / CABLE SCHEDULE			
DUCT NO.	SIZE	CONDUCTORS	TO
D1	4"	PULL STRING FOR UTILITY	EXISTING UTILITY POLE
D2	2"	3#3KCMIL, #8GND	NEW UTILITY TRANSFORMER
D3	2"	SPARE WITH PULL STRING	NEW UTILITY TRANSFORMER
D4	1"	4#10, 2#12GND	PP PANELBOARD / RTU PANEL
D5	2"	(6) #14TSP	RTU PANEL
D6	3"	MANUFACTURE CABLE	CSO 006 DIVER. STRUCT. INSTR.
D7	1"	4#10, 2#12GND	PP PANELBOARD / RTU PANEL
D8	2"	(4) #14TSP	RTU PANEL
D9	2"	20#14, 1#12GND	RTU PANEL / HPU PANEL
D10	2"	MANUFACTURE CABLE	CSO 007 DIVER. STRUCT. INSTR.
D11	2"	50#14, 1#12GND	RTU PANEL / HPU PANEL
D12	1"	4#10, 2#12GND	PP PANELBOARD / RTU PANEL
D13	1"	(1) #14TSP	RTU PANEL
D14	1"	2#10, 1#12GND	RTU PANEL
D15	1"	(2) #14TSP	RTU PANEL
D16	1"	ANTENNA CABLE	RTU PANEL
D17	1"	2#10, 1#12GND	PP PANELBOARD



- NOTES:**
- REFER TO TYPICAL DUCT BANK DETAIL FOR CONSTRUCTION REQUIREMENTS.

DUCT BANK SECTIONS
NOT TO SCALE

PANELBOARD SCHEDULE

NO. PP		LOCATION: NORTH BAXTER CSO STORAGE CONDUIT CONTROL STATION					
120/240 V, 1 PH, 3 W, 100 A MAINS		100 A SOLID NEUTRAL;					
10,000 AIC AT 120 V		100 GROUND BUS					
		100 A MCB NEMA 12 ENCLOSURE RATING					
		A MLO SURFACE MOUNTING					
CIRCUIT	DESCRIPTION OF LOAD	LOAD (KVA)	BREAKER	BREAKER	LOAD (KVA)	DESCRIPTION OF LOAD	CIRCUIT
1	LIGHTING	.10	20	1	.50	CSO 6 RECEPTACLE AND LIGHT	2
3	INTERIOR RECEPTACLES	.40	20	1	.50	CSO 7 RECEPTACLE AND LIGHT	4
5	EXTERIOR RECEPTACLES	.20	20	1	.50	METERING CHAMBER RECEPTACLE AND LIGHT	6
7	RTU CONTROL PANEL	1.0	20	1	-	SPARE	8
9	SECURITY CONTROL PANEL	0.5	20	1	-	SPARE	10
11		.00	20	2	-	SPARE	12
13	270V RELAY	.00	20	2	2.5	UNIT HEATER (5KW)	14
15	PV VAULT RECEPTACLE	.20	20	1	2.5	HYDRAULIC POWER UNIT	16
17	SPARE	-	20	1	4.0		18
19	SPARE	-	20	1	4.0		20
21	SPARE	-	20	1	.00	SPD	22
23	SPARE	-	20	1	.00		24
SUB-TOTAL CONNECTED		0.8	1.6	7.5		7.0	SUB-TOTAL CONNECTED
* PROVIDE GFCI BREAKER				SUB-TOTAL CONNECTED		KVA L1 = 8.3	
				SUB-TOTAL CONNECTED		KVA L2 = 8.6	
				TOTAL CONNECTED		KVA = 16.9	

LIGHTING FIXTURE SCHEDULE

FIXTURE TYPE	MANUFACTURER	CATALOG NO.	DESCRIPTION	WATTS	FIXTURE				REMARKS
				FIXT.	TYPE	MTG	LAMPS	VOLTS	
A	HUBBELL	NV2FG42XHG	CEILING MOUNTED VAPORTIGHT	42	42CFL	CEILING	1	120	PROVIDE NV2GG GUARD
B	HUBBELL	NV2FG42AHG	WALL MOUNTED VAPORTIGHT	42	42CFL	WALL	1	120	PROVIDE NV2GG GUARD
F1	LIGHTOLIER	IP-4-W-A-2-28-UNV-PG	1X4 FLOURESCENT ENCLOSED AND GASKETED INDUSTRIAL LIGHTING FIXTURE	56	28T5	CEILING	2	120	
	-	REFER TO SPECIFICATIONS	SELF CONTAINED EMERGENCY LIGHTING BATTERY UNIT NON-CORRODING SEALED AND GASKETED WITH TWO SEALED-BEAM LIGHTING HEADS.	-	8W	WALL	1	120	
	-	REFER TO SPECIFICATIONS	EMERGENCY EXIT SIGN LED TYPE WITH BATTERY BACK-UP	-	LED	WALL	1	120	

CONTROL CABLE/CONDUIT SCHEDULE

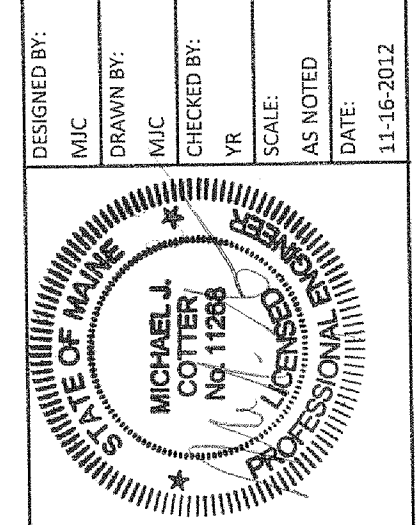
SYMBOL	CONDUIT SIZE	CONDUCTORS
C2	3/4"	2#14
C3	3/4"	3#14
C4	3/4"	4#14
C6	3/4"	6#14
C8	3/4"	8#14
C14	1"	14#14
C40	1 1/4"	40#14

SIGNAL CABLE/CONDUIT SCHEDULE

SYMBOL	CONDUIT SIZE	CONDUCTORS
S	3/4"	MANUFACTURE CABLE
S1	3/4"	1-2/C#14 TSP
S2	1"	2-2/C#14 TSP

LDD PROJECT NAME:
BAXTER BOULEVARD
NORTH STORAGE CONDUIT
DRAWING NAME:
Electrical Plan
FIELD BOOK USED:
N/A

REFERENCES:
09006.PP1.dwg, Title Block.dwg



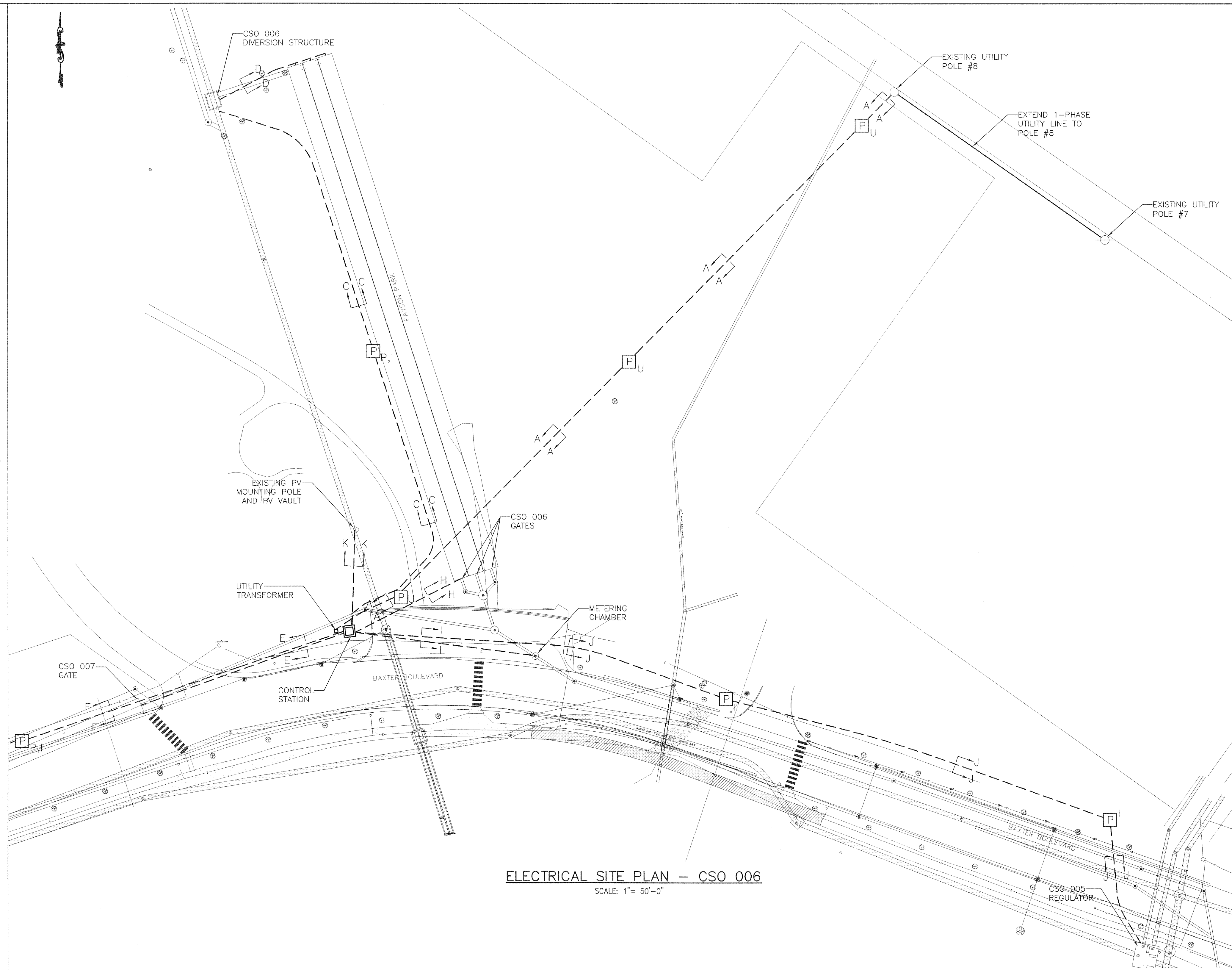
BAXTER BOULEVARD
NORTH STORAGE CONDUIT
ELECTRICAL
LEGEND, SCHED., DIAGRAMS

CITY OF PORTLAND, MAINE
PUBLIC SERVICES DEPARTMENT
ENGINEERING DIVISION

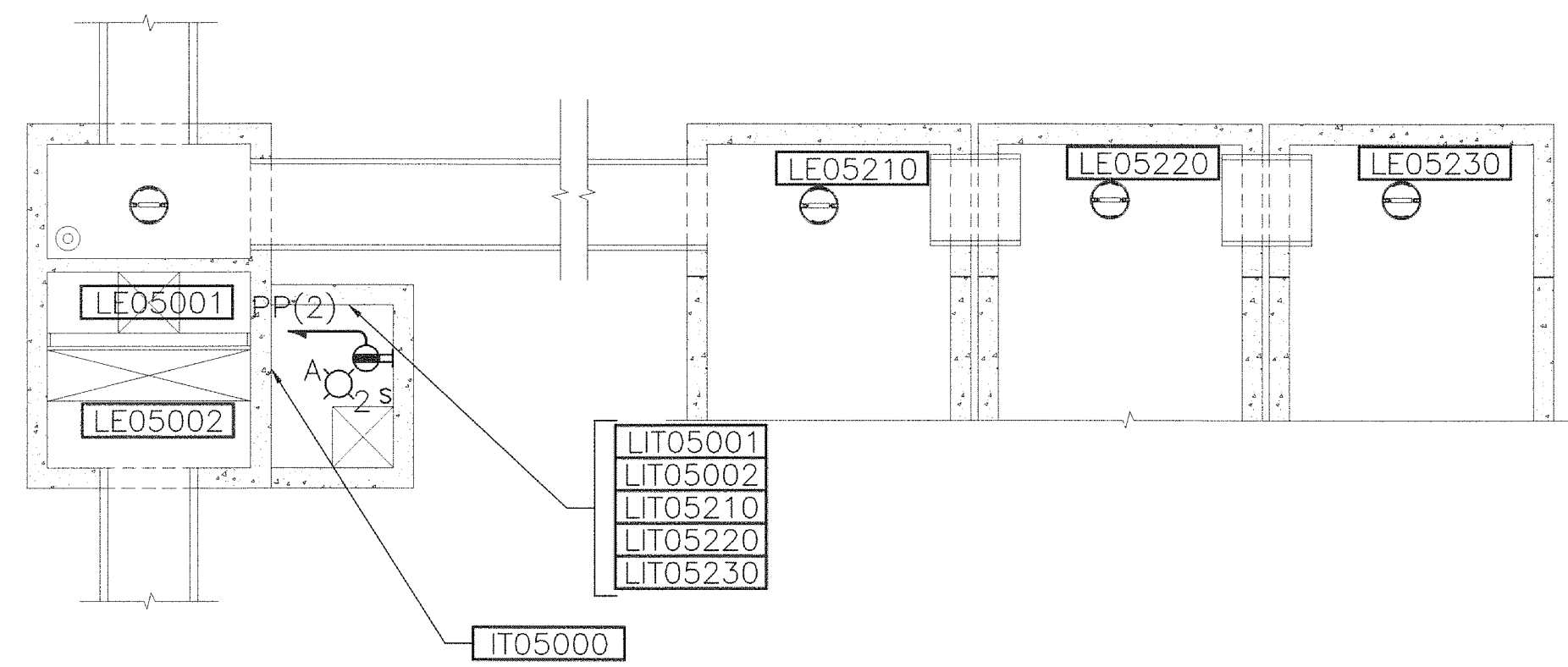


SHEET #
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PLAN NUMBER

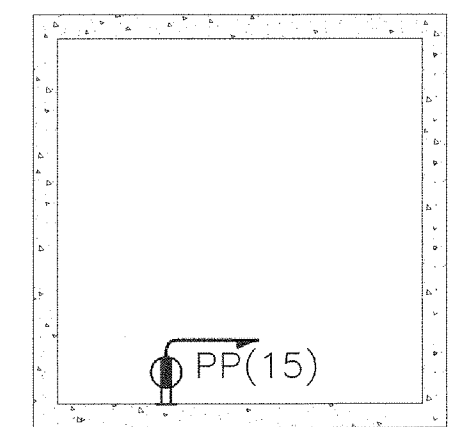
CONTINUED
ON
SHEET 52



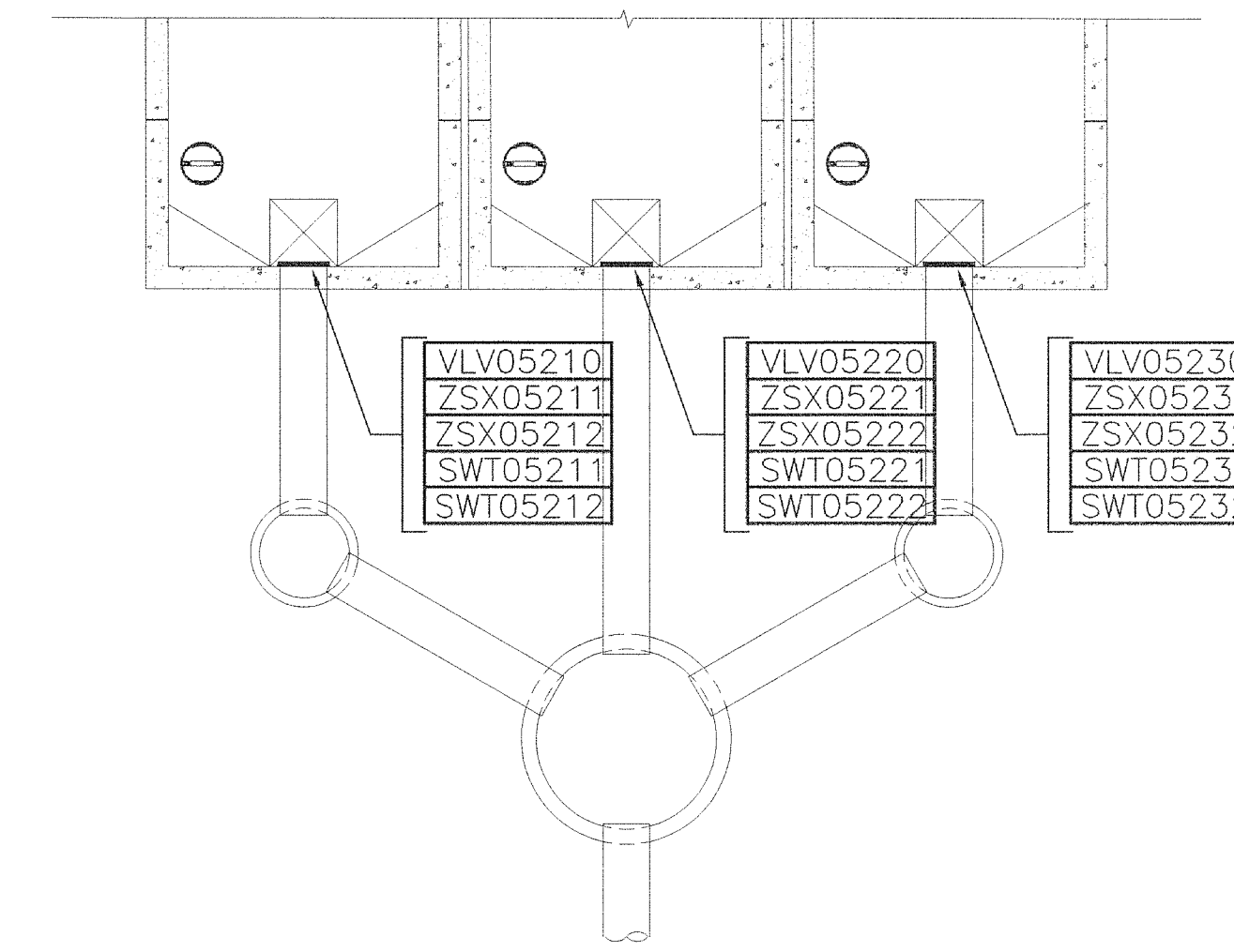
ELECTRICAL SITE PLAN - CSO 006
SCALE: 1" = 50'-0"



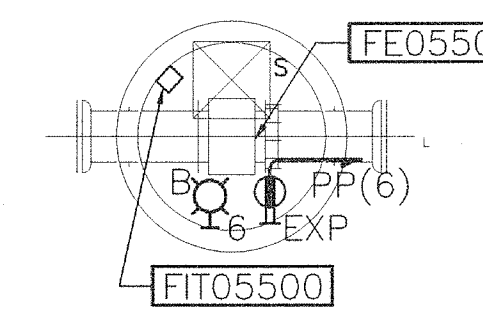
CSO 006 DIVERSION STRUCTURE ELECTRICAL PLAN
SCALE: 1" = 1'-0"



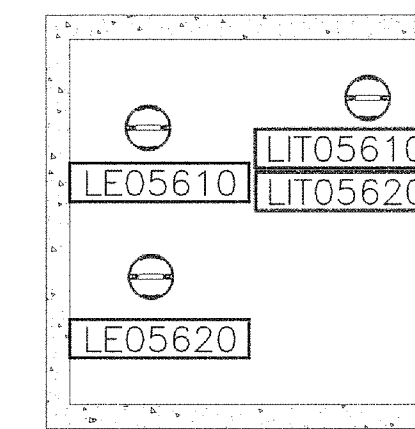
EXISTING PV VAULT
NOT TO SCALE



CSO 006 GATES ELECTRICAL PLAN
SCALE: 1" = 1'-0"



METERING CHAMBER ELECTRICAL PLAN
SCALE: 1" = 1'-0"

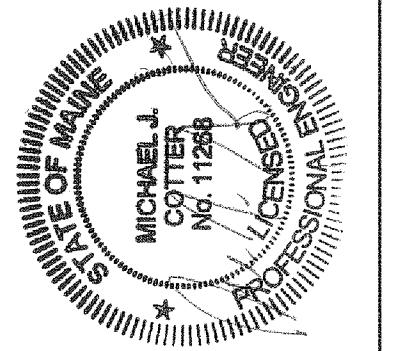


CSO 005 REGULATOR ELECTRICAL PLAN
SCALE: 1" = 1'-0"

LDD PROJECT NAME:
BAXTER BOULEVARD
NORTH STORAGE CONDUIT
DRAWING NAME:
Electrical Plan
FIELD BOOK USED:
N/A

REFERENCES:
09006.PP1.dwg, Title Block.dwg

DESIGNED BY:	MIC
DRAWN BY:	MIC
CHECKED BY:	YR
SCALE:	AS NOTED
DATE:	11-16-2012

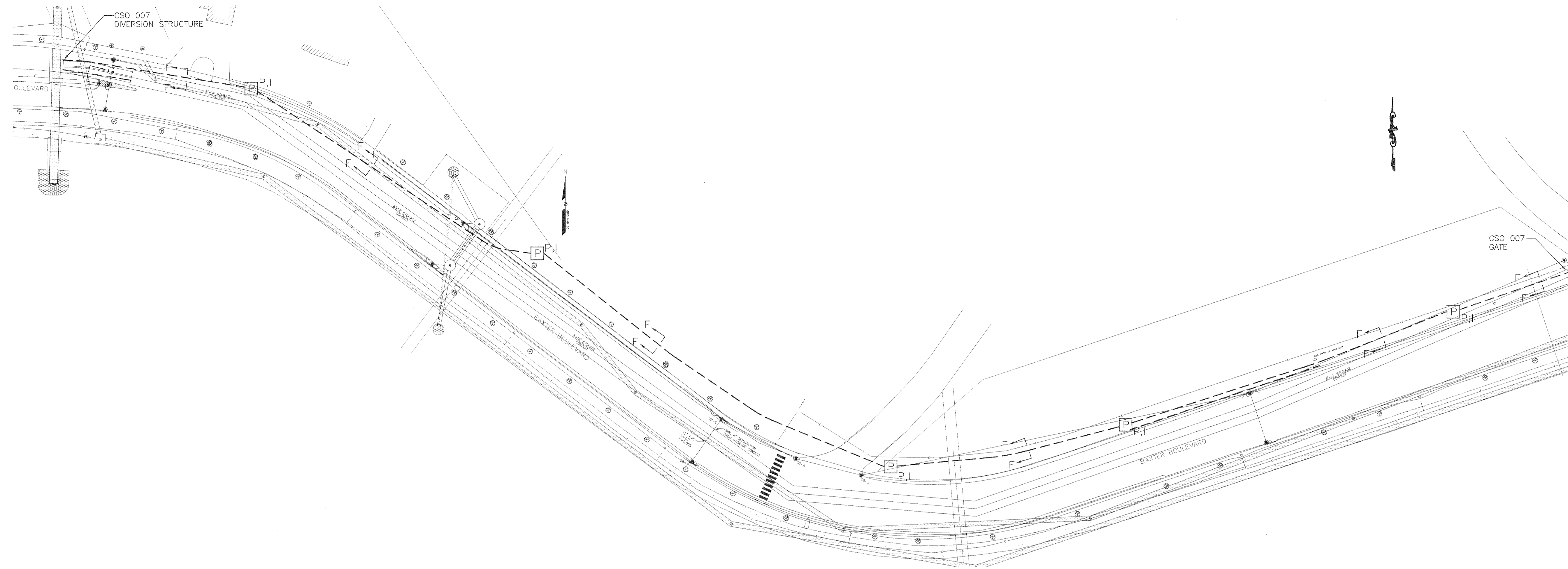


BAXTER BOULEVARD
NORTH STORAGE CONDUIT
ELECTRICAL
SITE PLAN - CSO 006

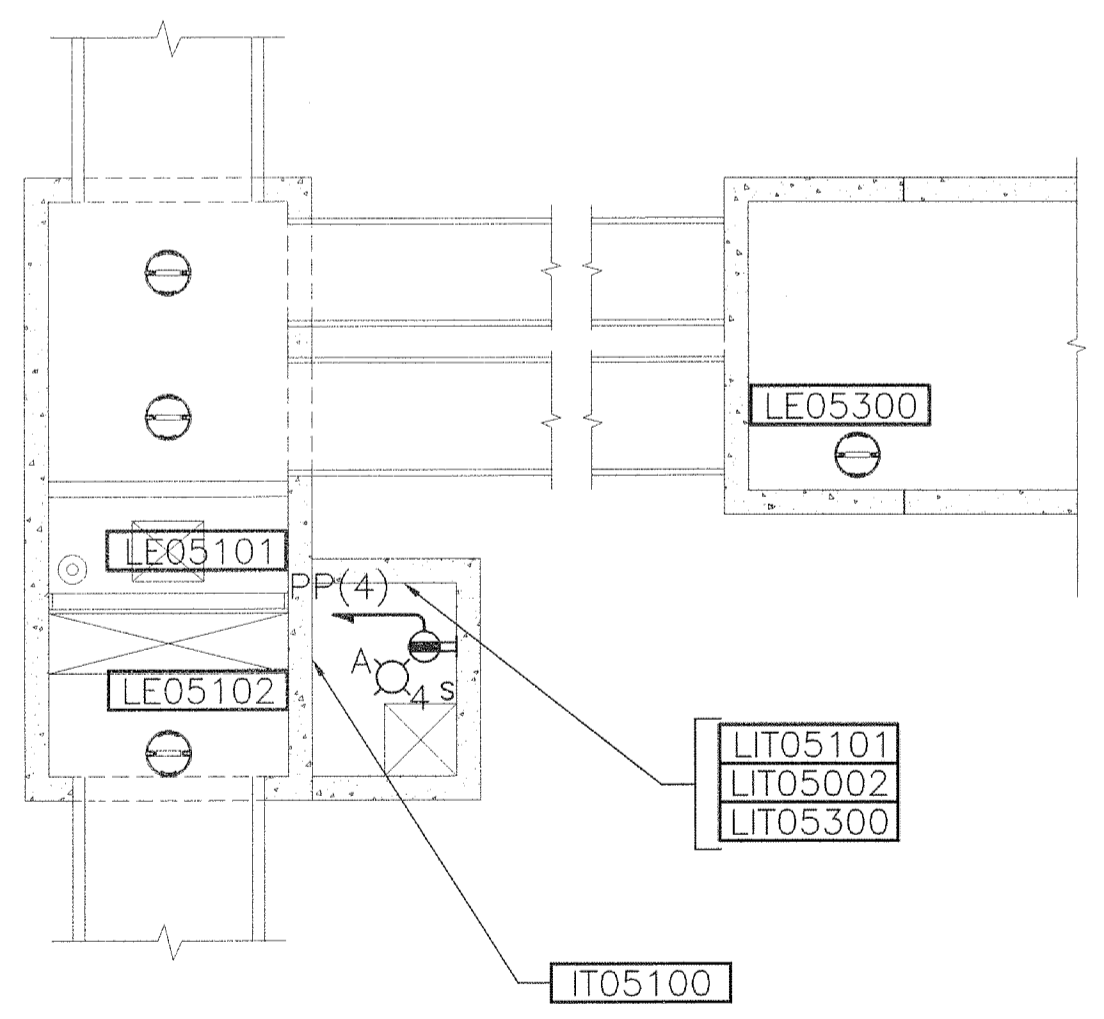
CITY OF PORTLAND, MAINE
PUBLIC SERVICES DEPARTMENT
ENGINEERING DIVISION



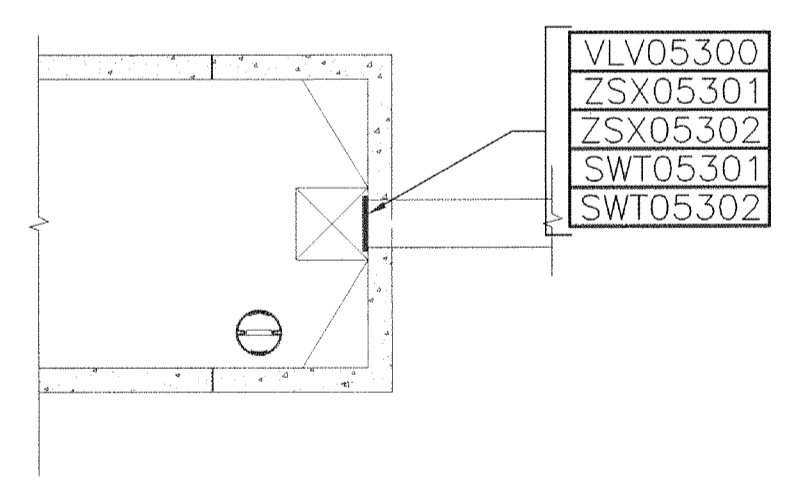
SHEET #
51 OF 54
PLAN NUMBER



ELECTRICAL SITE PLAN - CSO 007
SCALE: 1" = 50'-0"



CSO 007 DIVERSION STRUCTURE ELECTRICAL PLAN
SCALE: 1" = 1'-0"



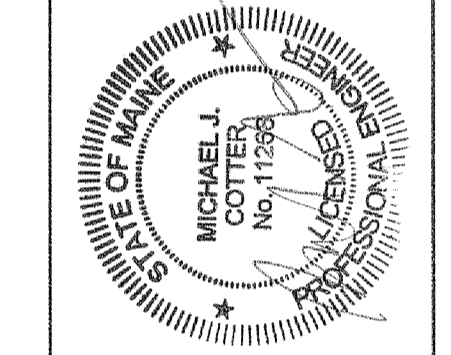
CSO 007 GATE ELECTRICAL PLAN
SCALE: 1" = 1'-0"

CONTINUED
ON
SHEET 51

LDD PROJECT NAME:
BAXTER BOULEVARD
NORTH STORAGE CONDUIT
DRAWING NAME:
Electrical Plan
FIELD BOOK USED:
N/A

REFERENCES:
09006: PPL.dwg, Title Block.dwg

DESIGNED BY: MIC	DRAWN BY: MIC	CHECKED BY: YR	SCALE: AS NOTED	DATE: 11-16-2012
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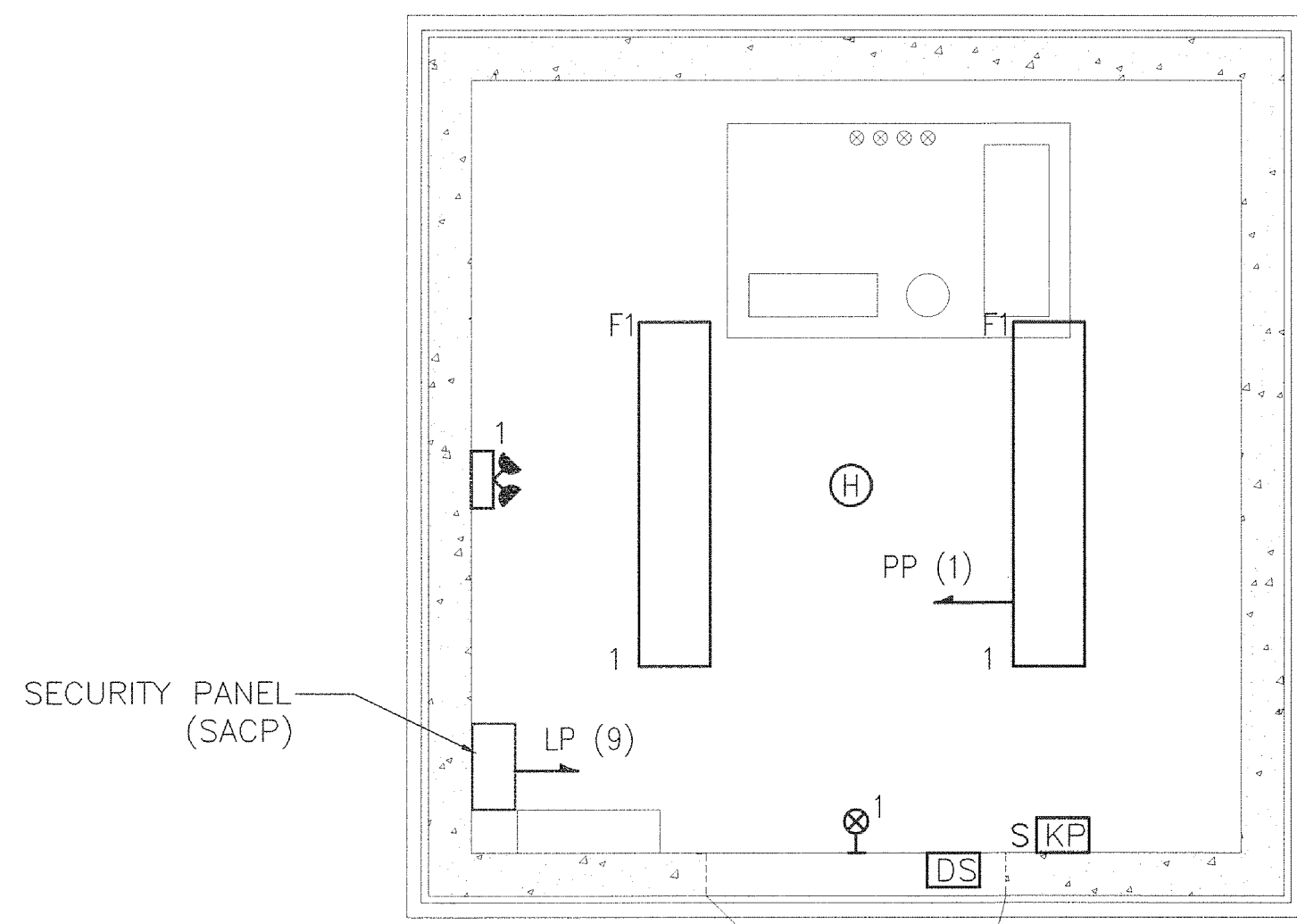
**BAXTER BOULEVARD
NORTH STORAGE CONDUIT
ELECTRICAL
SITE PLAN - CSO 007**

**CITY OF PORTLAND, MAINE
PUBLIC SERVICES DEPARTMENT
ENGINEERING DIVISION**

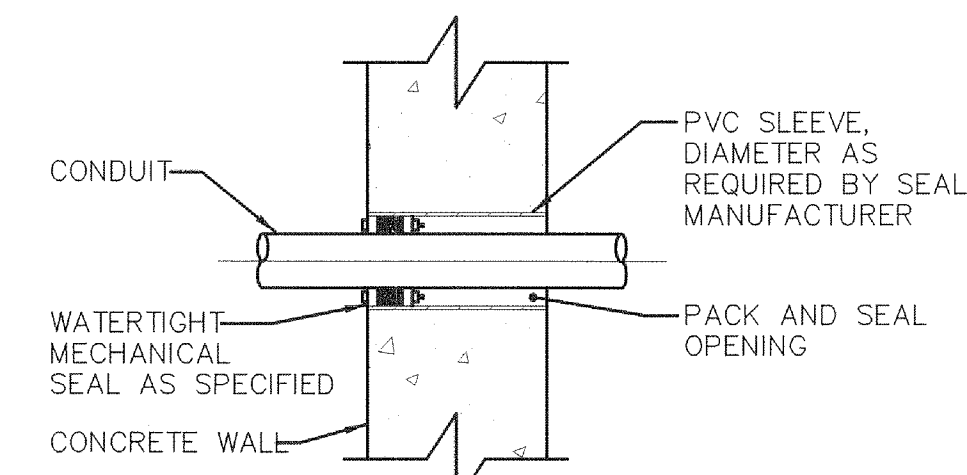


SHEET #
52 OF 54

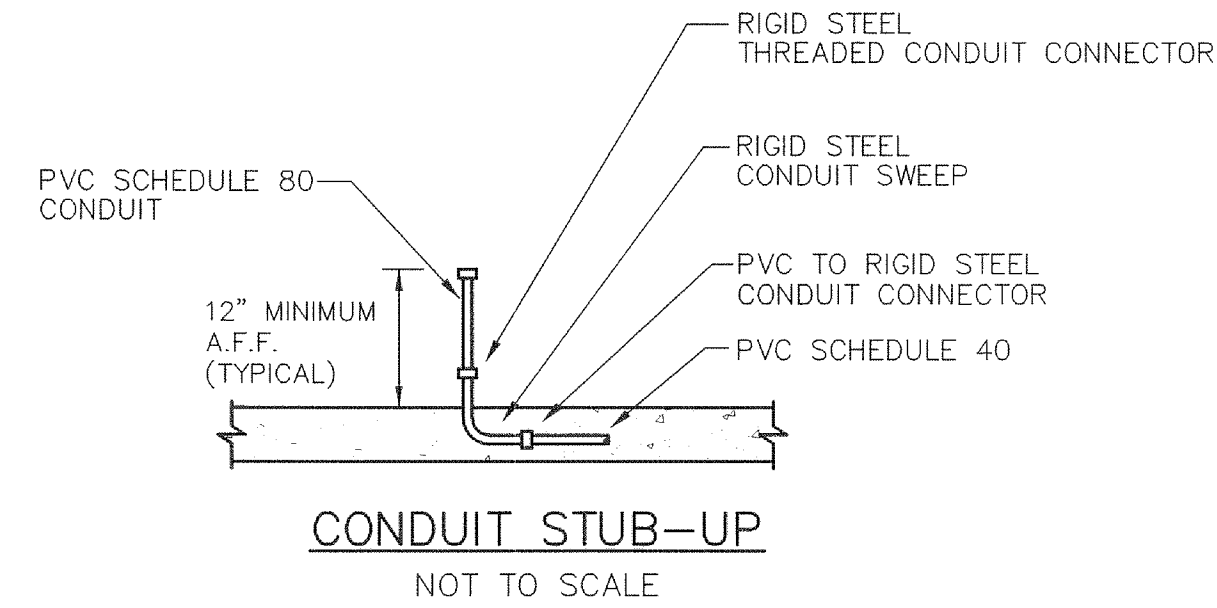
PLAN NUMBER



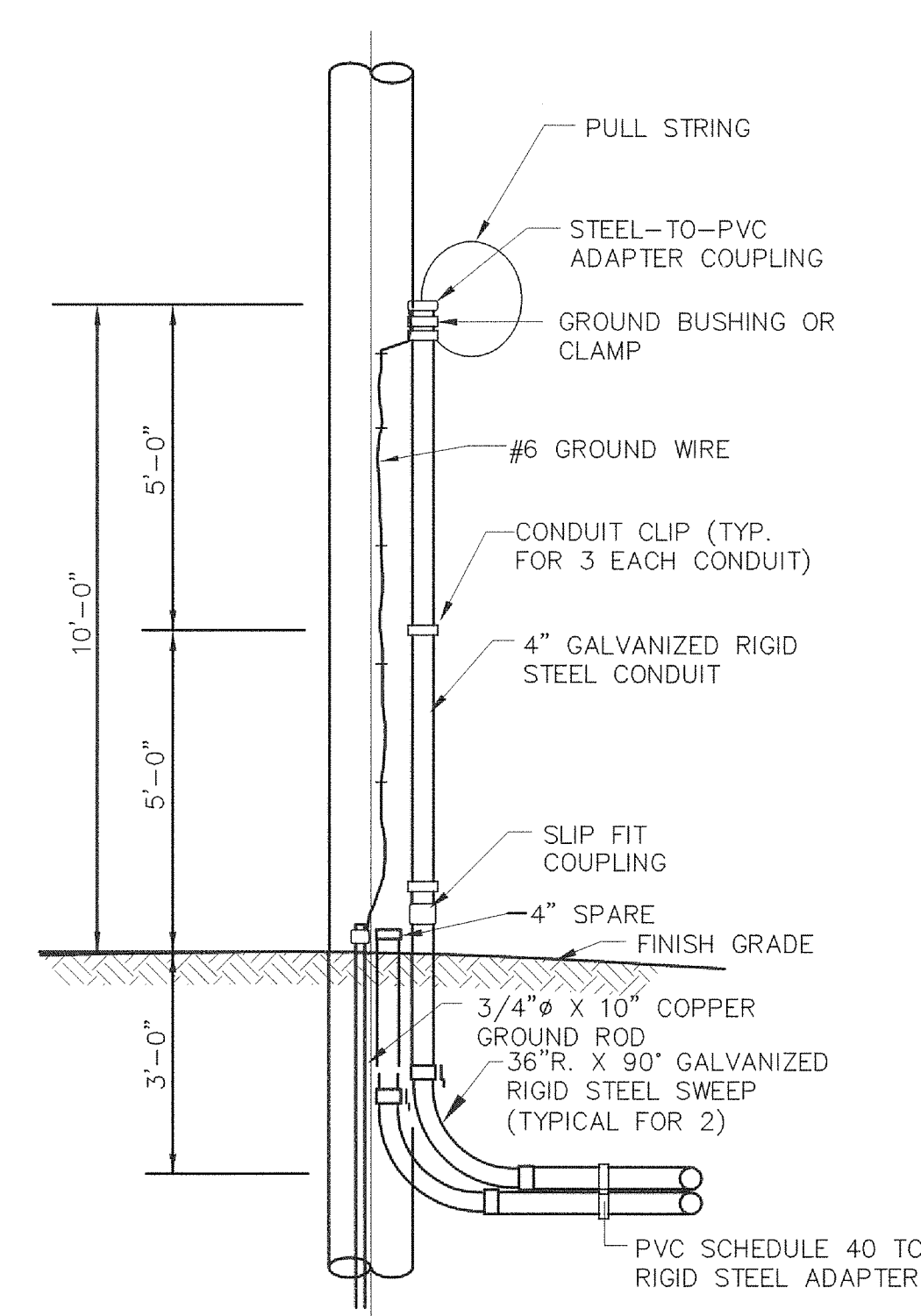
CONTROL STATION LIGHTING & SECURITY PLAN
SCALE: 1/2"=1'-0"



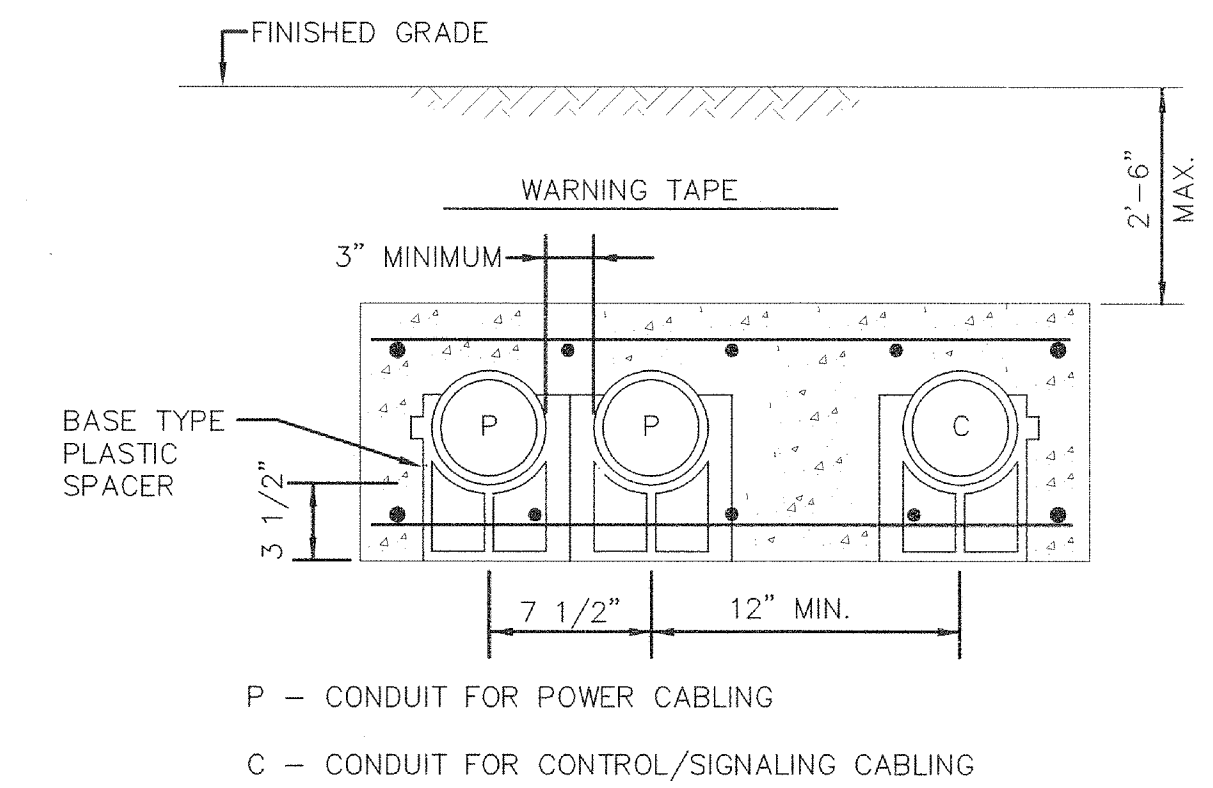
WATERTIGHT CONDUIT PENETRATION THROUGH NEW CONCRETE WALL
NOT TO SCALE



CONDUIT STUB-UP
NOT TO SCALE



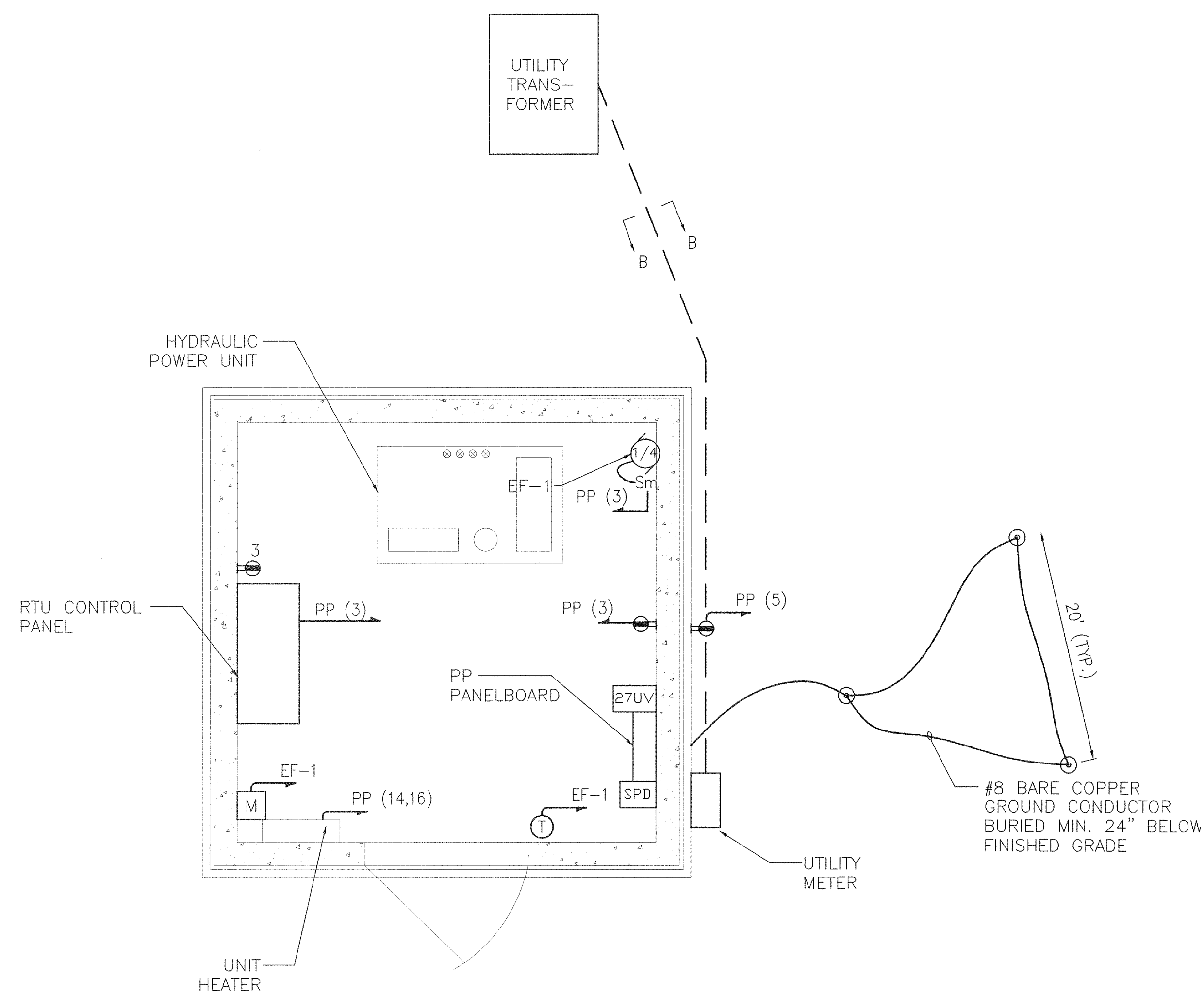
SERVICE POLE DETAIL
NOT TO SCALE



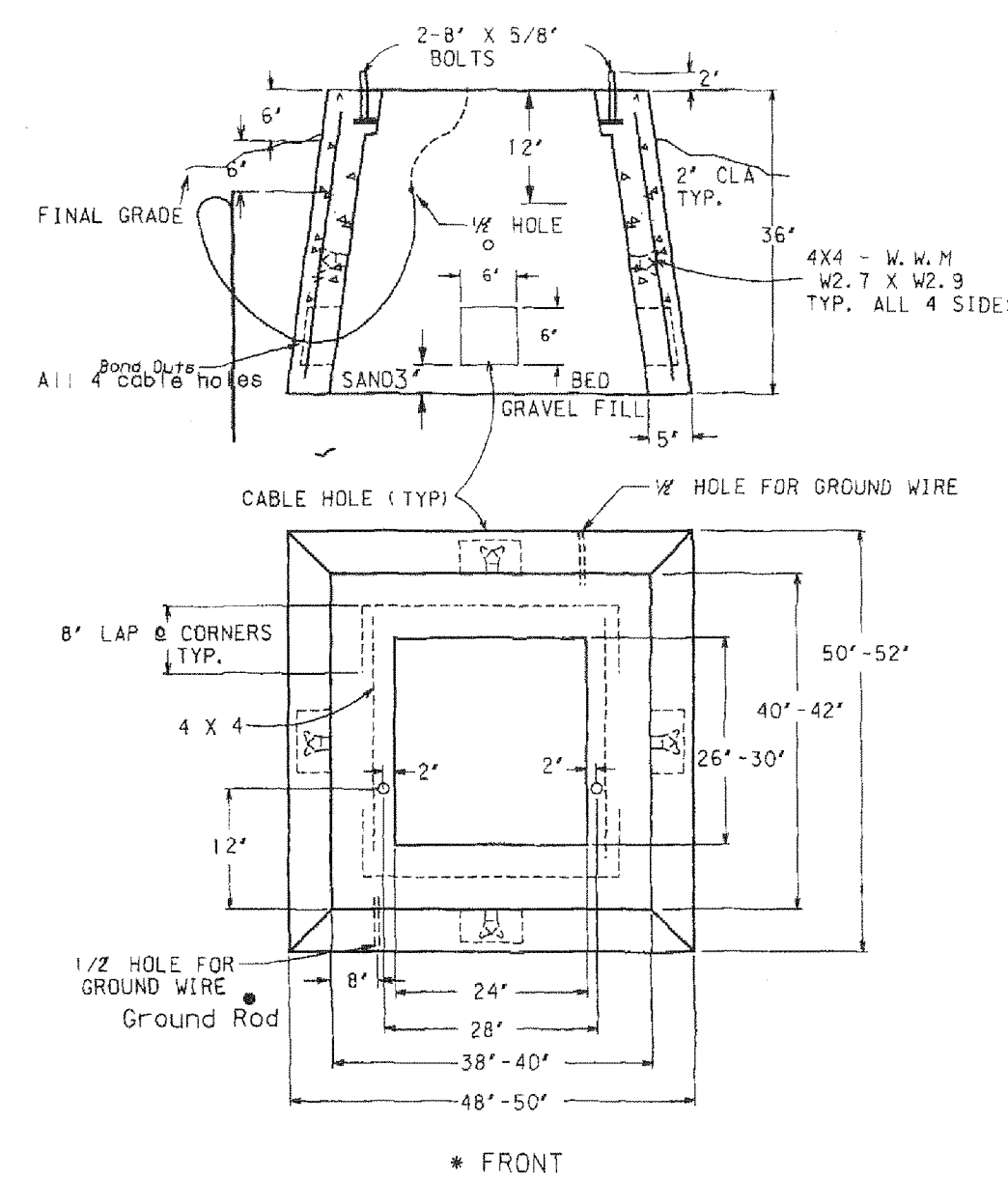
NOTES:

- BACKFILL DUCT BANK IN LAYERS AND MANUALLY TAMP OR "PUDDLE" CONCRETE FILL. PROVIDE RED DUCT BANK MARKER TAPES, READING "CAUTION - ELECTRICAL LINES BELOW", OVER ENTIRE LENGTH OF DUCTLINE. LOCATE TAPES 12 INCHES BELOW GRADE. PROVIDE A TAPE FOR EVERY 12 INCHES OF WIDTH OF DUCTLINE.
- FOR REINFORCING REQUIREMENTS SEE STRUCTURAL SPECIFICATIONS.
- REFER TO DUCT BANK SECTIONS FOR CABLE/CONDUIT REQUIREMENTS.

TYPICAL DUCT BANK SECTION
NOT TO SCALE



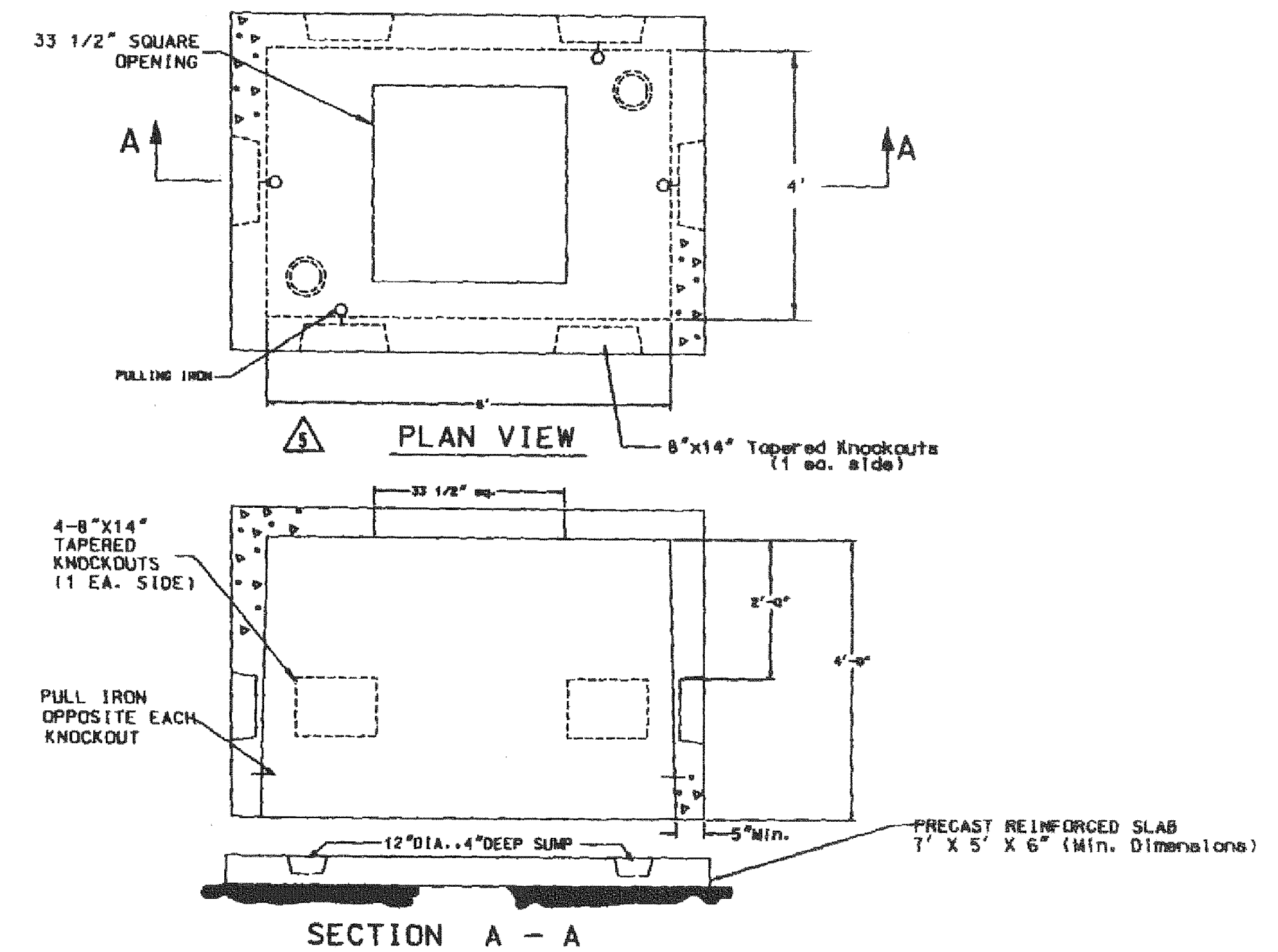
CONTROL STATION POWER PLAN
SCALE: 1/4"=1'-0"



NOTES:

- TRANSFORMER PADS TO BE PROVIDED BY CONTRACTOR AND CONSTRUCTED/INSTALLED IN ACCORDANCE WITH CENTRAL MAINE POWER STANDARDS

TRANSFORMER PAD DETAIL
NOT TO SCALE



NOTES:

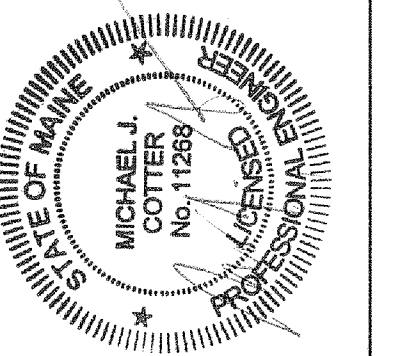
- PRIMARY PULL BOXES TO BE PROVIDED BY CONTRACTOR AND CONSTRUCTED/INSTALLED IN ACCORDANCE WITH CENTRAL MAINE POWER (CMP) STANDARDS.
- PULL BOX SHALL BE DESIGNED TO WITHSTAND H20 WHEEL LOADING WITH 6" OF OVERBURDEN. THE DESIGN SHALL ALSO COMPLY WITH NATIONAL ELECTRICAL SAFETY CODE SECTION 323A. PROVIDE SHOP DRAWINGS STAMPED BY A STATE OF MAINE REGISTERED PROFESSIONAL ENGINEER.
- PROVIDE CMP TYPE "B" CASTING. CMP S/C62-1780, 62-1785, OR 62-1880. MINIMUM ONE COURSE OF BRICK TO GRADE.
- PULL BOX AND SLAB SHALL BE SET ON A SUITABLE GRAVEL BASE.

UTILITY PRIMARY PULLBOX DETAIL
NOT TO SCALE

LDD PROJECT NAME:
BAXTER BOULEVARD
NORTH STORAGE CONDUIT
DRAWING NAME:
Electrical Plan
FIELD BOOK USED:
N/A

REFERENCES:
09006.PP1.dwg, Title Block.dwg

DESIGNED BY:
MIC
DRAWN BY:
MIC
CHECKED BY:
YR
SCALE:
AS NOTED
DATE:
11-16-2012

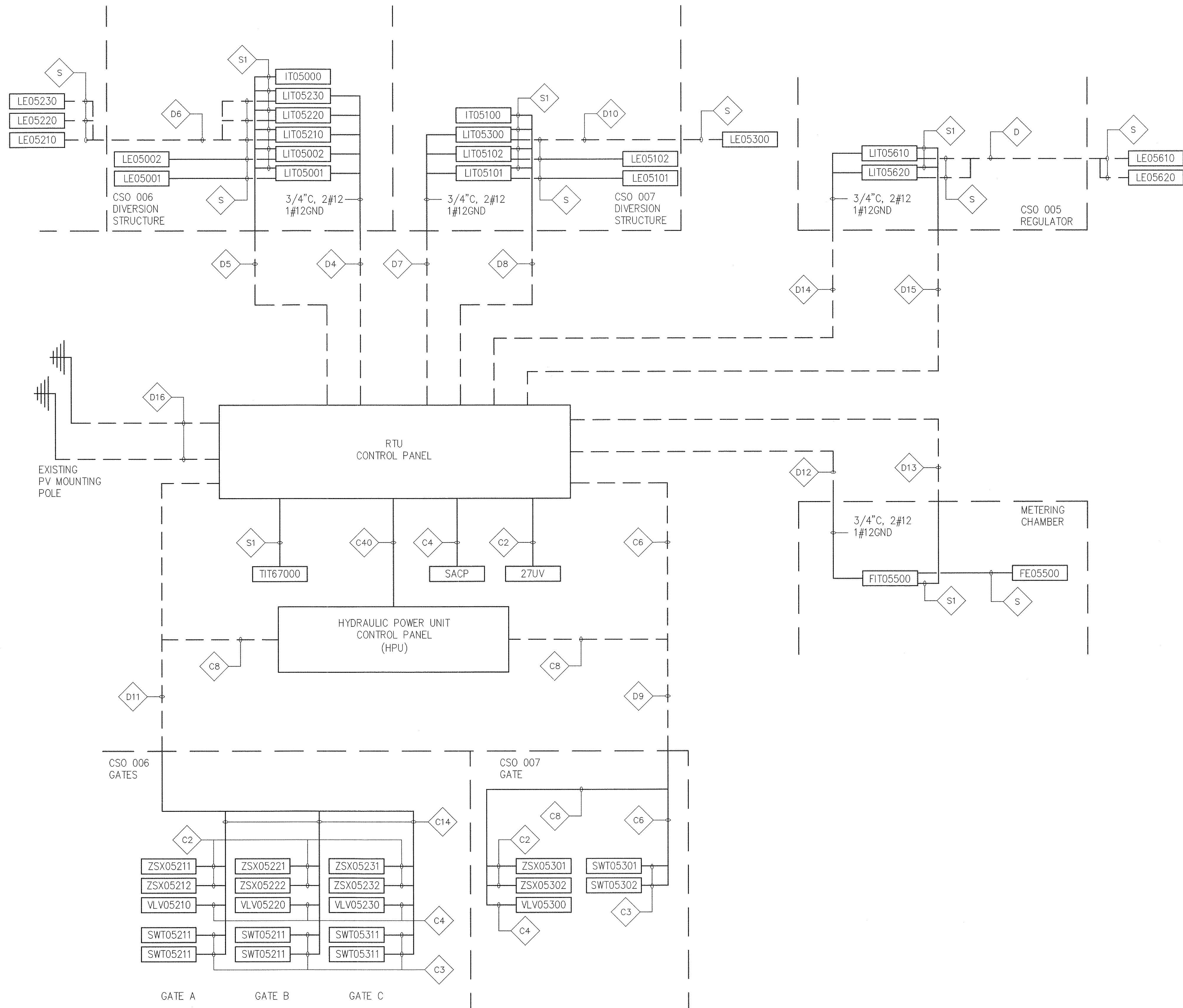


BAXTER BOULEVARD
NORTH STORAGE CONDUIT
ELECTRICAL
CONTROL STATION / DETAILS

CITY OF PORTLAND, MAINE
PUBLIC SERVICES DEPARTMENT
ENGINEERING DIVISION



SHEET #
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PLAN NUMBER

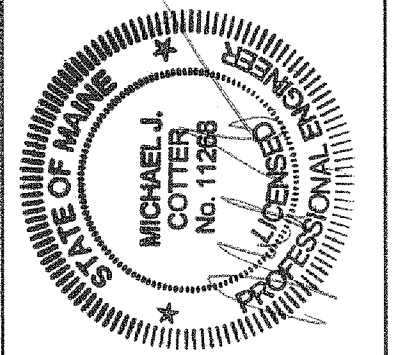


CONTROL BLOCK DIAGRAM
NOT TO SCALE

LDD PROJECT NAME:
BAXTER BOULEVARD
NORTH STORAGE CONDUIT
DRAWING NAME:
Electrical Plan
FIELD BOOK USED:
N/A

REFERENCES:
09006.PPI.dwg, Title Block.dwg

DESIGNED BY:	MIC
DRAWN BY:	MIC
CHECKED BY:	YR
SCALE:	AS NOTED
DATE:	11-16-2012



BAXTER BOULEVARD
NORTH STORAGE CONDUIT
ELECTRICAL
CONTROL BLOCK DIAGRAM

CITY OF PORTLAND, MAINE
PUBLIC SERVICES DEPARTMENT
ENGINEERING DIVISION



SHEET #
54 OF 54
PLAN NUMBER