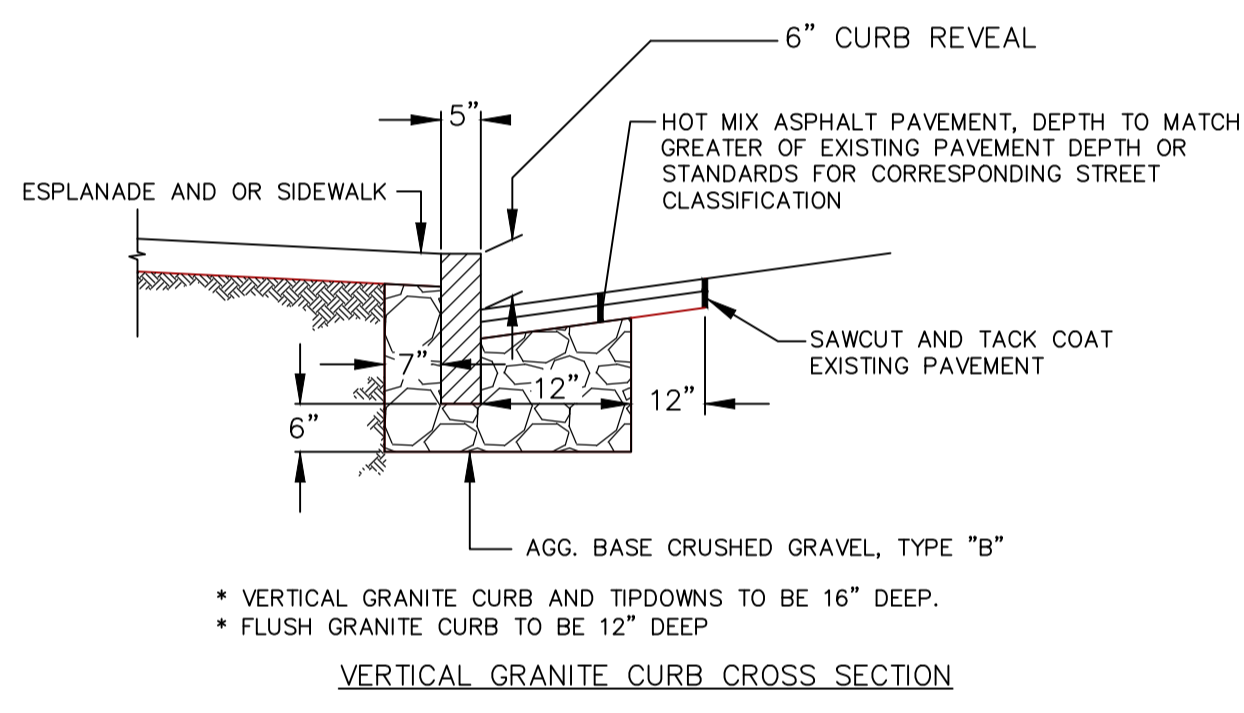


1. If the existing sewer is PVC then the connection shall be made using bell and spigot joints, NOT Ferncos.
2. All damaged piping shall be removed by saw cutting or removing an entire segment of pipe and replaced with new PVC. Contractor shall remove clay bell(s) (by saw cutting) to facilitate Fernco installation. Saw cuts shall be square so that joints between new and existing pipes do not have gaps, particular attention shall be paid to maintaining a smooth invert.
3. Contractor is responsible for maintaining sewer flows while making the new sewer service and drain connections. If required, bypass pumping shall be coordinated with the City. Contractor shall provide the City 24 hours notice.
4. Bypass pumping may be required and shall be coordinated with the City

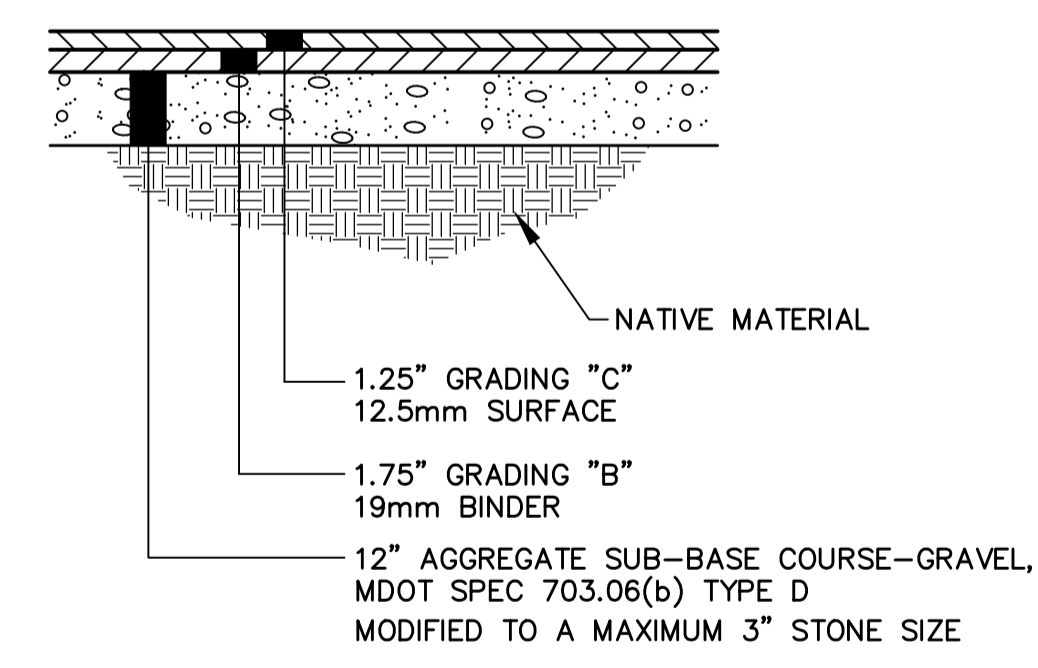
* CONTRACTOR MAY USE AN INSERTA TEE OR "APPROVED EQUAL" TO MAKE THE SEWER CONNECTIONS AS APPROVED BY THE CITY OF PORTLAND

CONNECTION TO SANITARY SEWER
NOT TO SCALE

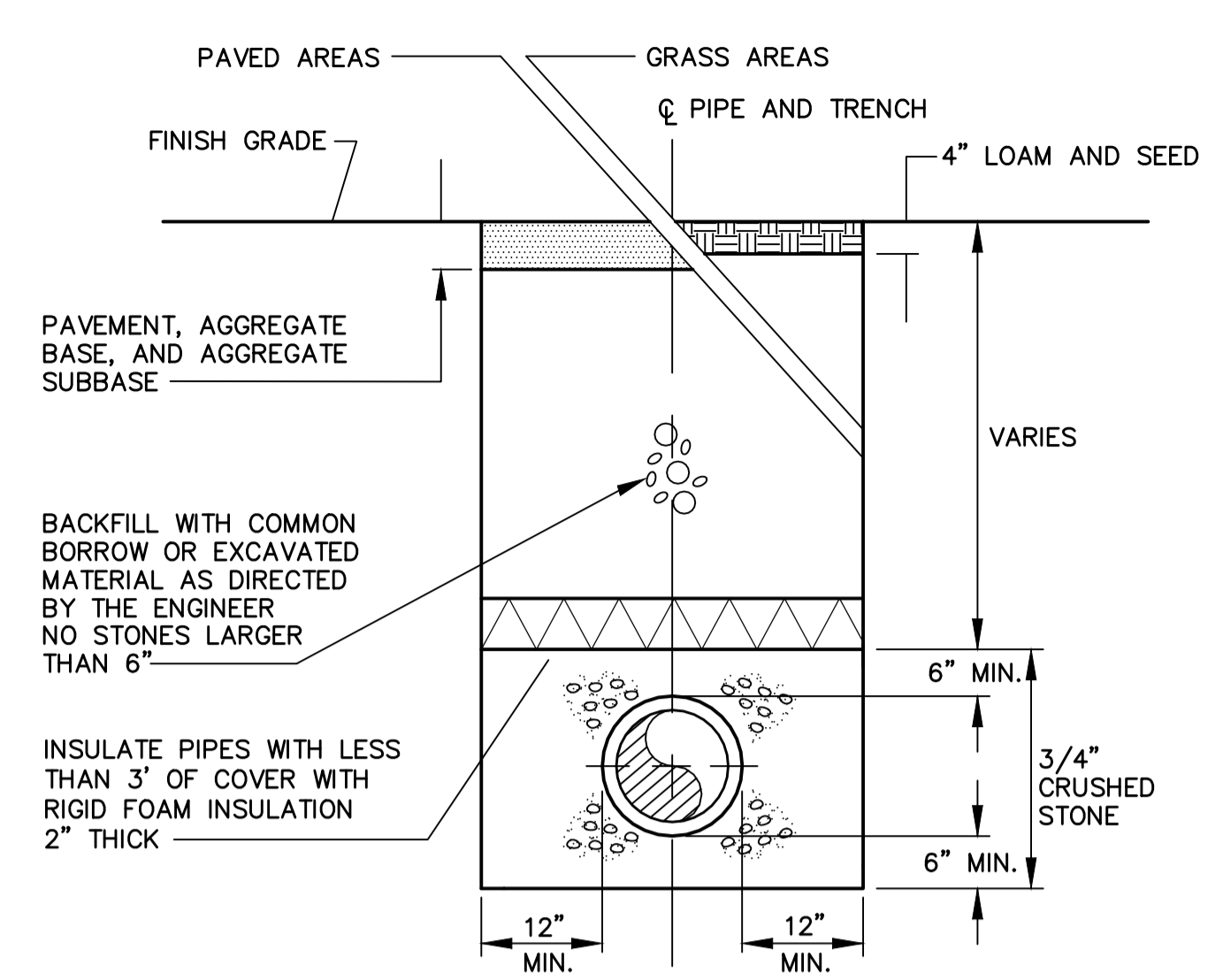


- * VERTICAL GRANITE CURB AND TIPDOWNS TO BE 16" DEEP.
- * FLUSH GRANITE CURB TO BE 12" DEEP

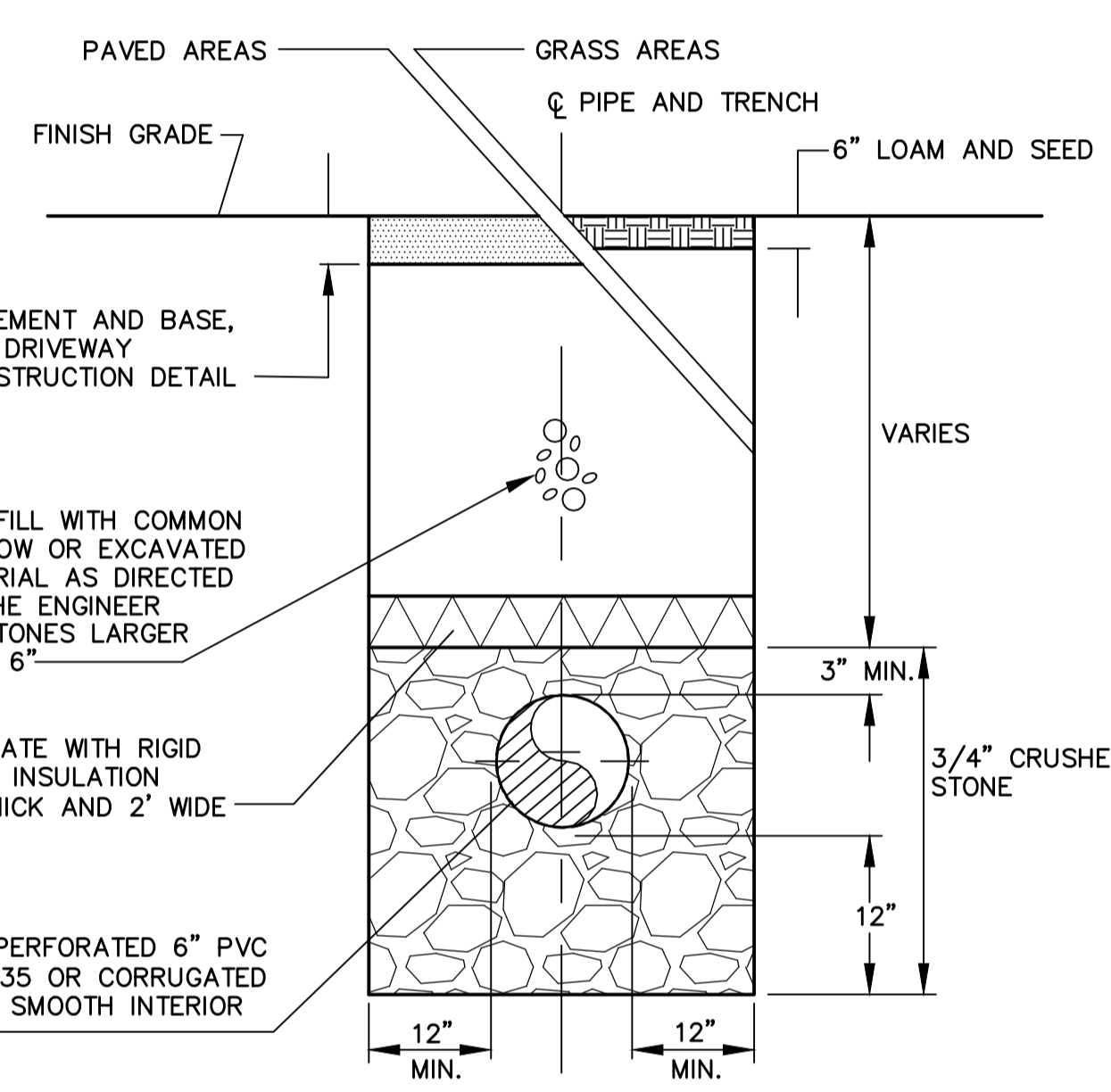
VERTICAL GRANITE CURB
(INSTALLATION IN CITY RIGHT OF WAY & WITHIN SITE)
NOT TO SCALE



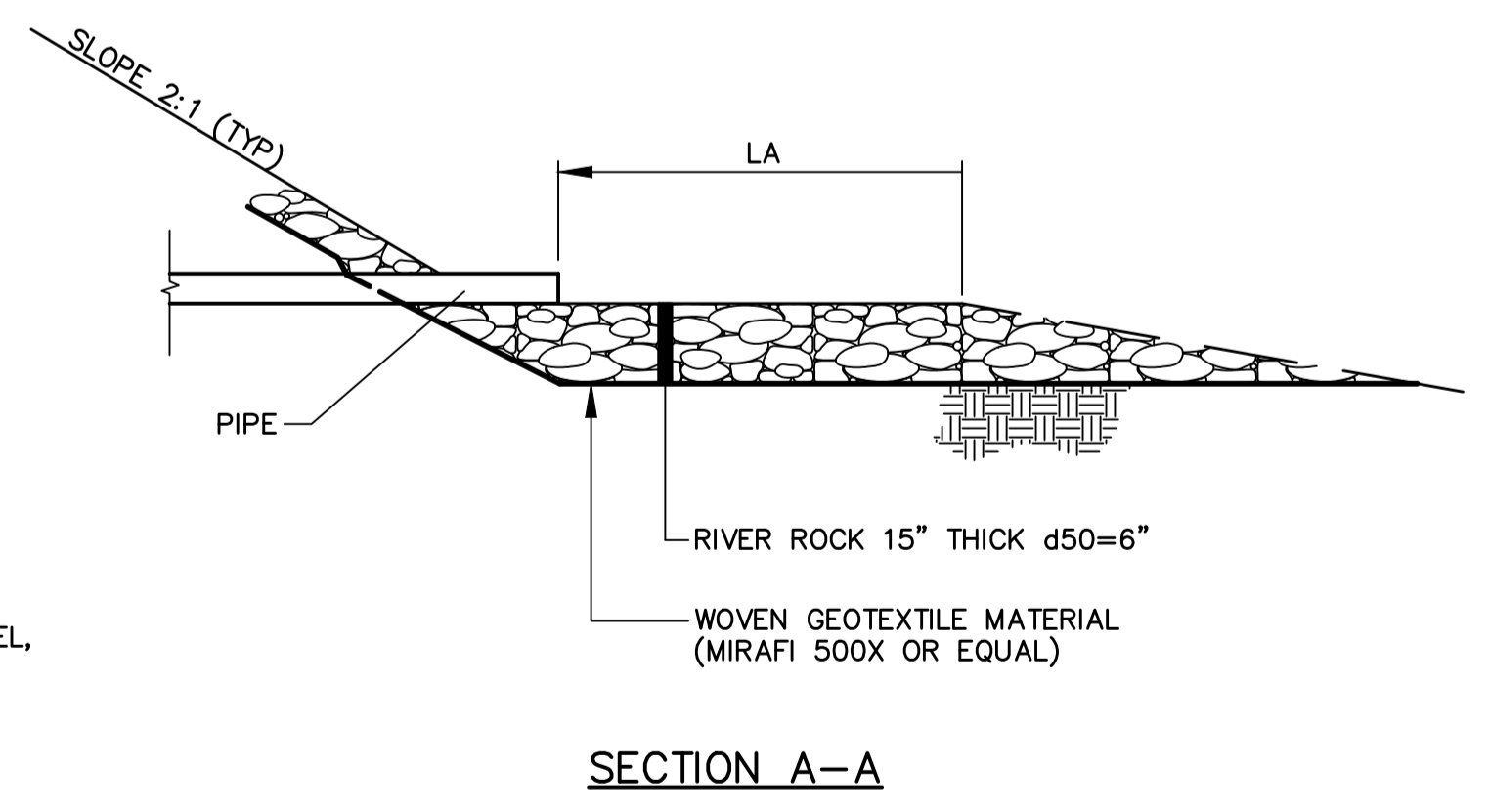
TYPICAL DRIVEWAY CONSTRUCTION
OUTSIDE OF RIGHT OF WAY
NOT TO SCALE



TYPICAL TRENCH REPAIR DETAIL
NOT TO SCALE



UNDERDRAIN DETAIL FOR ROOF DRAIN COLLECTION SYSTEM
NOT TO SCALE



APRON SCHEDULE*					
PIPE	RIPRAP**			RIPRAP**	
	d50 SIZE (FT)	THICKNESS t (INCH)	LENGTH LA (FT) (MIN)	WIDTH W1 (FT)	WIDTH W2 (FT)
12" OR LESS	0.5'	15"	10'	3.0'	12'

* SEE PLANS FOR SHAPE/SIZE OF ENERGY DISSIPATORS
** RIP RAP SHALL CONSIST OF ROUND NATURAL STONE SUCH AS RIVER ROCK

ENERGY DISSIPATER (RIVER ROCK) DETAIL
NOT TO SCALE

NOTES:

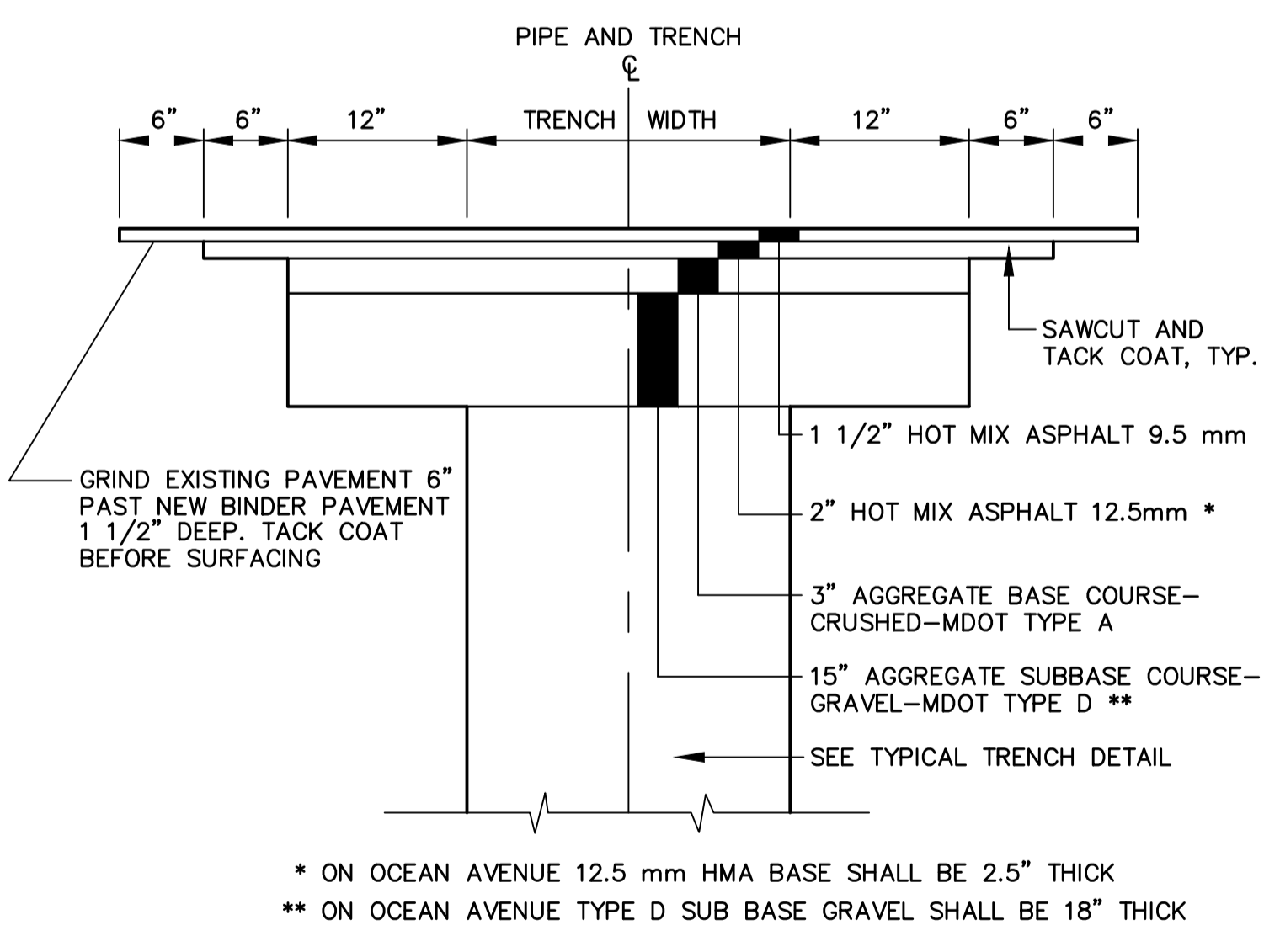
1. WEIGHT: 10-15 LBS. MAX.
2. MATERIALS:
2.1 HOUSING: CRES 300 SERIES
2.2 HARDWARE: CRES 300 SERIES
2.3 CARTRIDGE: LOOKS: ALUM. ALLOY
3. PERFORMANCE CHARACTERISTICS (W/ HIGH FLOW CARTRIDGE):
3.1 TREATMENT FLOW RATE (PER MODULE): 240 GPM (10.58 CFS)
3.2 BYPASS FLOW RATE (PER MODULE): 108 GPM (4.77 CFS)
4. TYPICAL INSTALLATION: LOCATE THE FILTER UNIT (OR ARRAY) IN FRONT OF THE CATCH BASIN OUTLET PIPE. WITH THE OUTLET PIPE COMPLETELY ENCLOSED BEHIND THE FILTER UNIT, ATTACH THE UNIT TO THE CATCH BASIN WALL WITH THE SUPPLIED HARDWARE. USE INDUSTRIAL GRADE SEALANT IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATION TO PREVENT ANY LEAKAGE AROUND THE FILTER BOX.
5. USE ONLY WITH FABCO REPLACEMENT FILTER CARTRIDGES.

FABCO CARTRIDGE SELECTIONS			
CARTRIDGE NUMBER	DESCRIPTION	COLOR CODE	FLOW RATE (LTP)
9718-1	STANDARD	RED	115 GPM (L26 CFS)
9718-2	BACTERIA	YELLOW	115 GPM (L26 CFS)
9718-3	HYDROCARBONS	BLUE	115 GPM (L26 CFS)
9718-4	HEAVY METALS	GREY	60 GPM (L13 CFS)
9718-5	STANDARD (SHORT)	PINK	115 GPM (L26 CFS)
9718-6	NUTRIENTS	GREEN	100 GPM (L22 CFS)
9718-7	HIGH FLOW	RED (MARKED)	250 GPM (L58 CFS)

REFERENCE VIEW

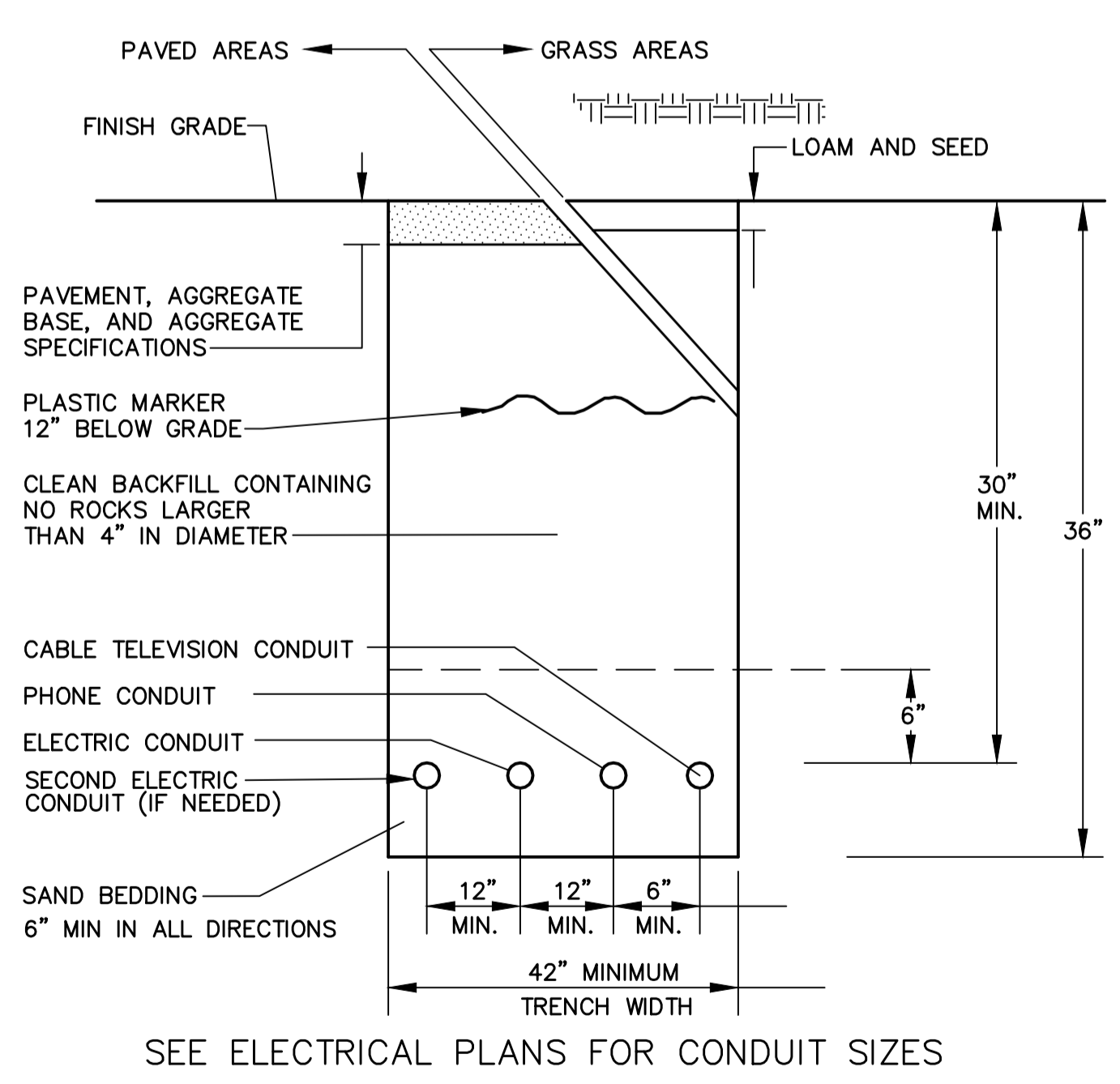
NO.	CITY	PART NUMBER	DESCRIPTION	REMARKS
1			SEE NOTES	
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100			SEE NOTES	

STORWATER FILTER DETAIL
NOT TO SCALE



- * ON OCEAN AVENUE 12.5 mm HMA BASE SHALL BE 2.5" THICK
- ** ON OCEAN AVENUE TYPE D SUB BASE GRAVEL SHALL BE 18" THICK

TYPICAL TRENCH PAVING DETAIL
NOT TO SCALE



UNDERGROUND ELECTRIC/COMMUNICATIONS
UTILITY TRENCH DETAIL
NOT TO SCALE

23 Ocean Avenue

23 OCEAN AVENUE, PORTLAND, MAINE

Owner / Developer:
Steven & Roberta Cope
172 Concord Street
Portland, Maine 04103



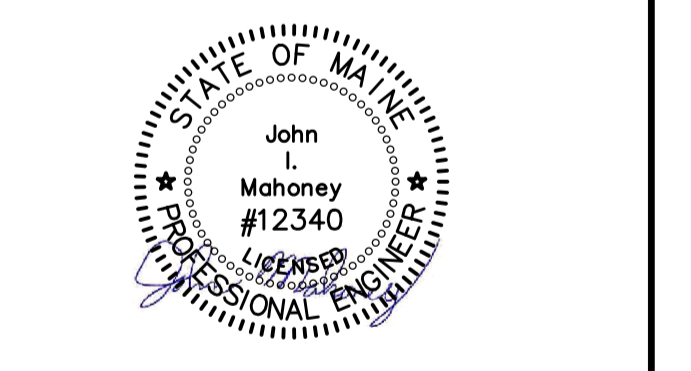
Architect
Kevin Moquin, Architect
Hammond Street
Portland, Maine 04104
207.615-6421



Landscape Architect
Carroll Associates
217 Commercial Street
Portland, Maine 04101
207.772.1552



Civil Engineer
Ransom Consulting, Inc.
400 Commercial Street, Suite 404
Portland, Maine 04101
207-772-2891



CIVIL DETAILS

No.	Revision/Issue	Date
C	FOR PERMIT	12-14-16
B	REVISED PER CITY COMMENT	9-7-16
A	SITE PLAN PERMITTING	6-6-16

Design by: JIM
Checked by: SJB
Drawn by: JIM
Approved by: SJB



DATE OF APPROVAL 10/25/16

PLANNER Neil Donaldson
PROJECT NO. 2016-150