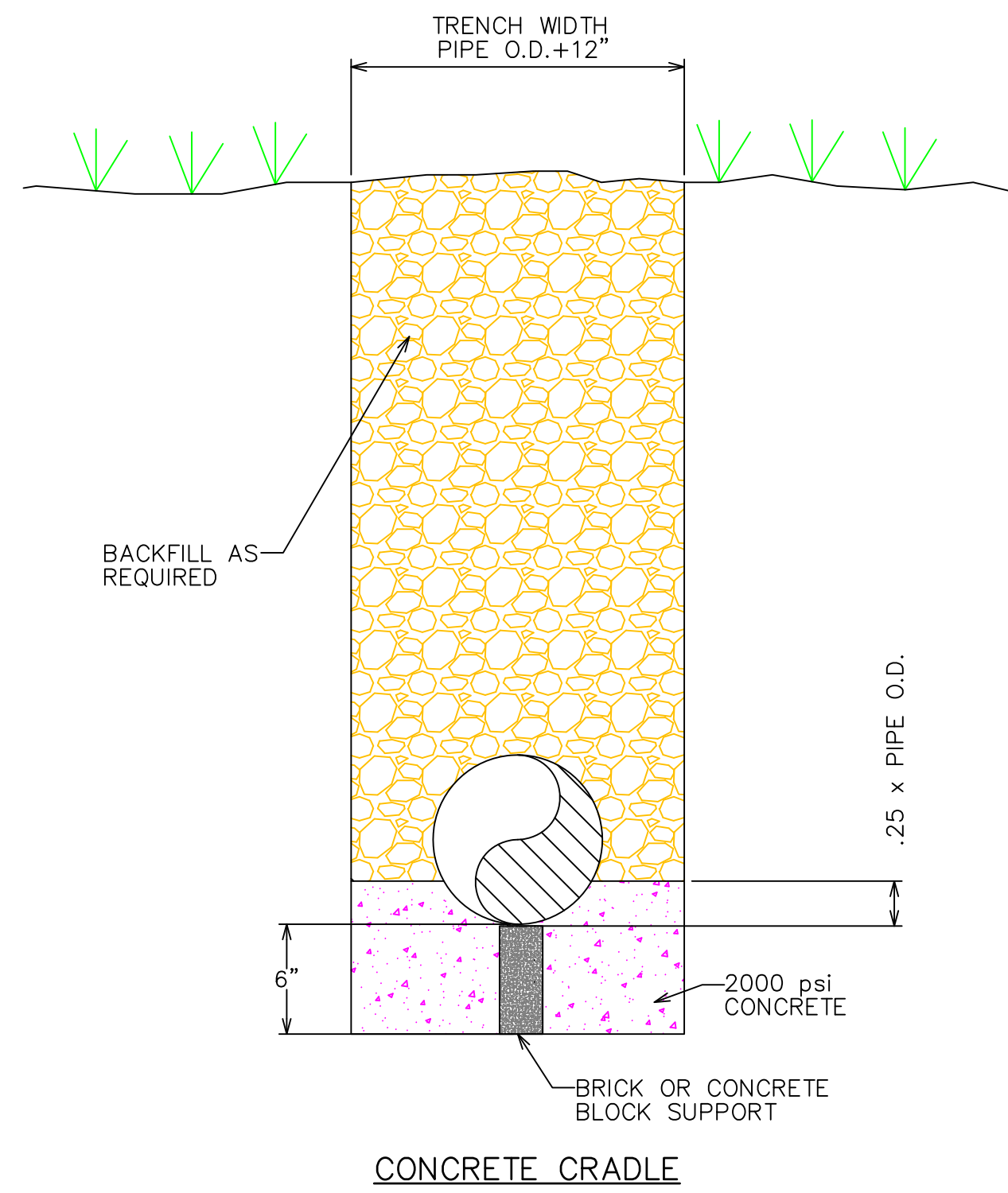


CONCRETE ENCASEMENT



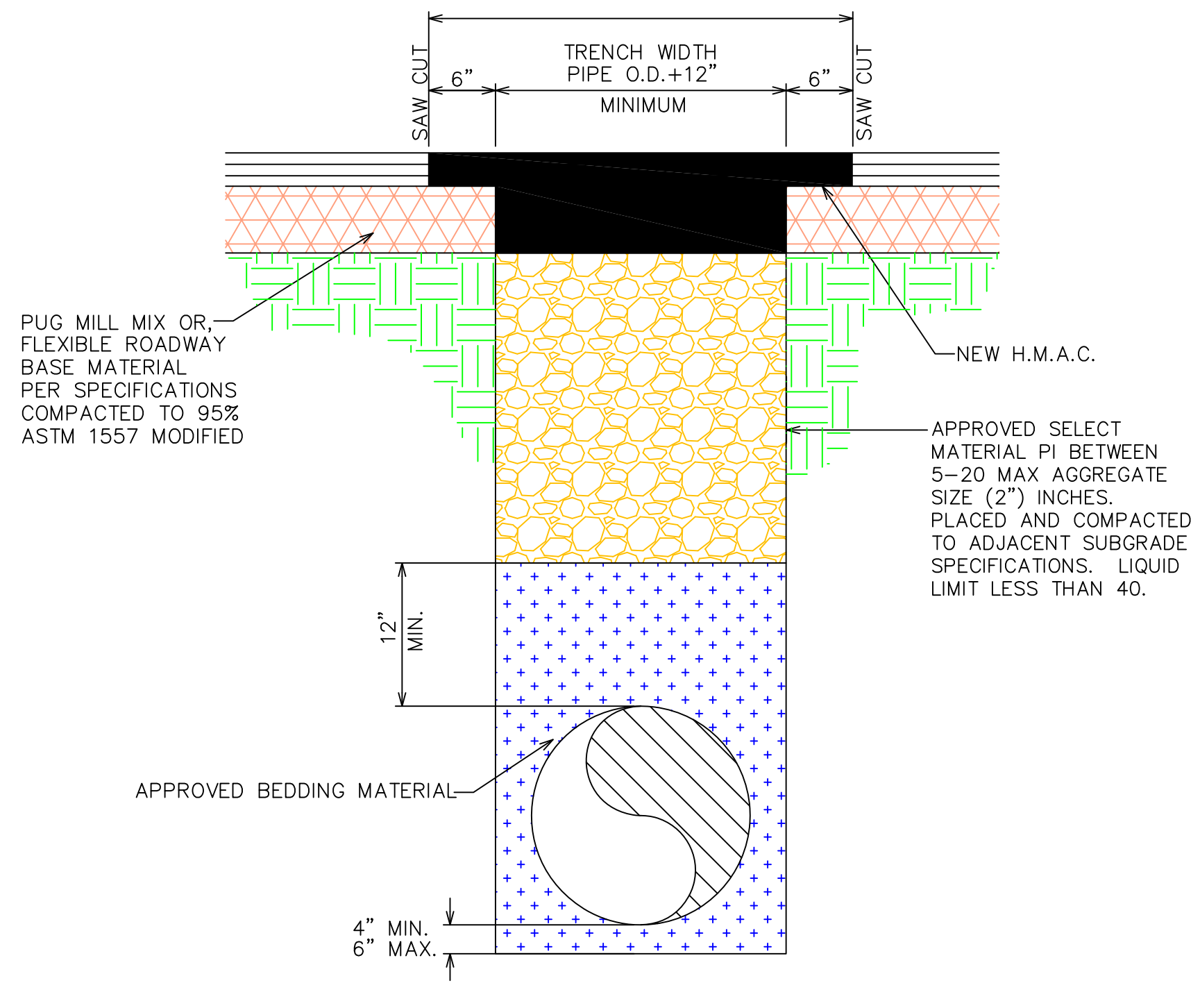
CONCRETE CRADLE

**BEDDING MATERIAL SPECIFICATIONS:**

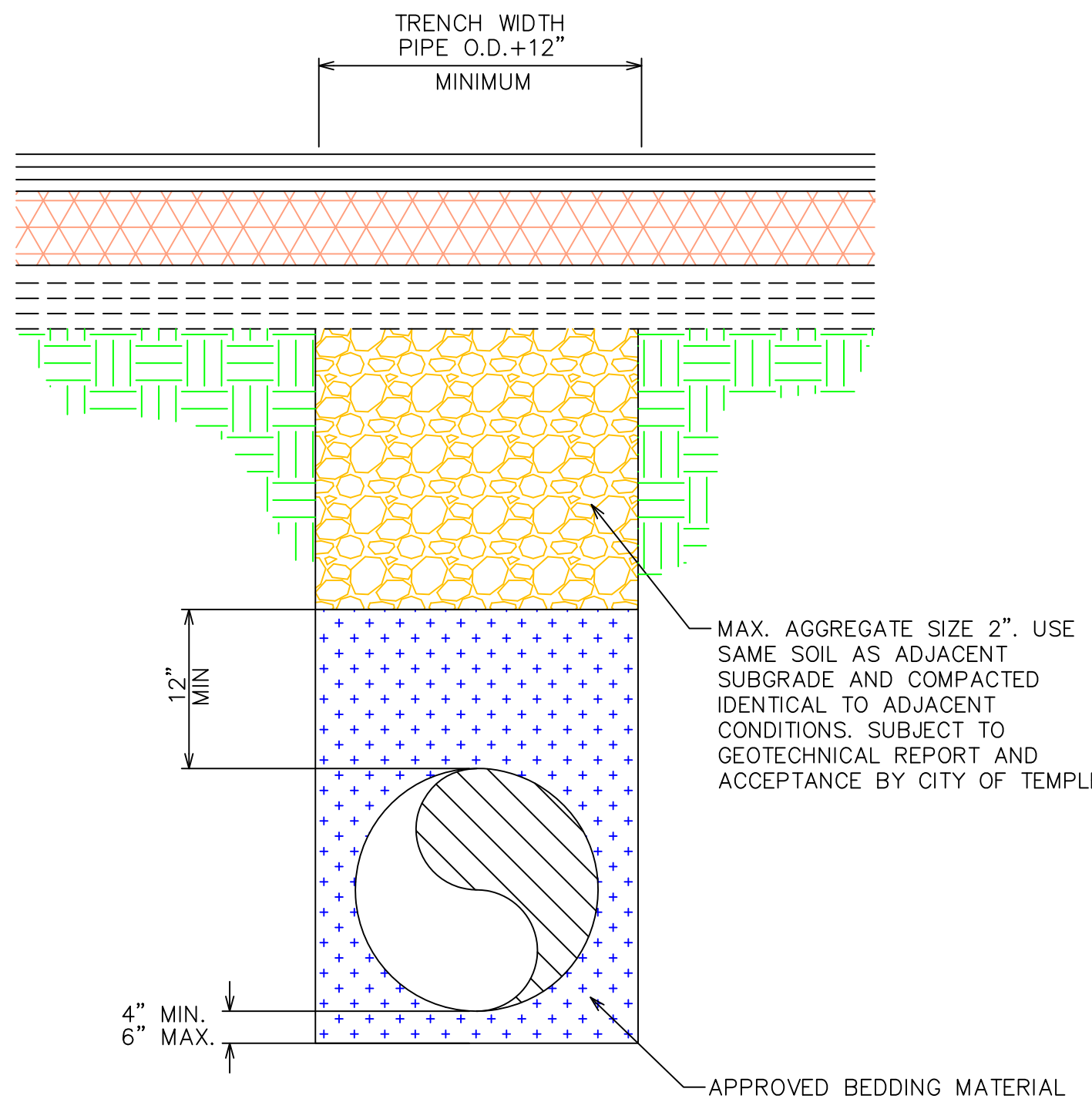
- ALL AGGREGATES SHALL BE CLEAN AND DURABLE PARTICLES.
- CLEAN, WASHED SAND SHALL CONFORM TO THE FOLLOWING GRADATION:
 

SIEVE	% PASS
3/8"	100
No. 4	95-100
No. 16	50-85
No. 200	0-5
- WASHED OR SCREENED GRAVEL SHALL CONFORM TO THE FOLLOWING GRADATION:
 

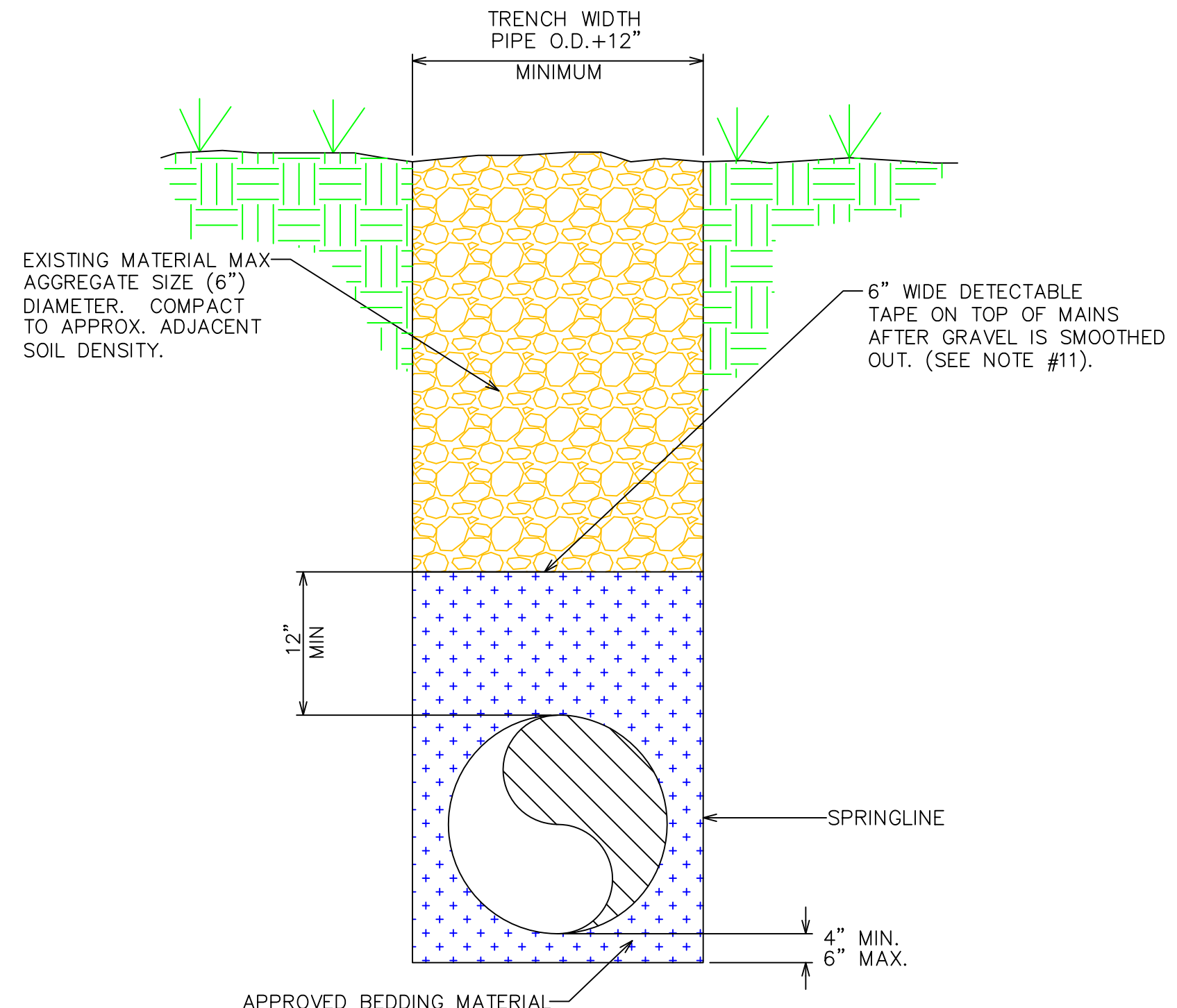
SIEVE	% PASS
1/2"	100
3/8"	80-100
No. 4	15-70
No. 10	0-10
- WHERE GROUNDWATER IS ENCOUNTERED, GRAVEL SHALL BE USED FOR BEDDING MATERIAL.
- BEDDING MATERIAL SHALL BE PLACED AND CONSOLIDATED TO ELIMINATE VOIDS.
- MANUFACTURERS RECOMMENDATIONS FOR BEDDING MATERIALS SHALL BE CONSIDERED.
- WASTEWATER LINES REQUIRE GRAVEL TO BE USED AS BEDDING MATERIAL.



CONSTRUCTION IN EXISTING ROADWAY CLASS 1



CONSTRUCTION IN PROPOSED FUTURE ROADWAY CLASS 2



OUT OF ROAD INSTALLATION CLASS 3

- NOTES:**
- SAW CUT TO REPAIR ASPHALT OR CONCRETE PAVEMENT AND PRIOR TO OPENING THE DITCH
  - "ROADWAY"=B/C TO B/C +4" IN EACH DIRECTION
  - TRENCH WIDTHS SHOWN ARE MINIMUM FOR PROPER PLACEMENT AND COMPACTION OF EMBEDMENT
  - THE MINIMUM CLEAR WIDTH OF TRENCH (SHEETED OR UNSHEETED) MEASURED AT SPRINGLINE OF PIPE SHALL BE 12" GREATER THAN THE OUTSIDE DIAMETER OF THE PIPE.
  - WHERE PIPE INSTALLATION IS IN ROCK (OR OTHER INCOMPRESSIBLE FOUNDATION), THE CONTRACTOR SHALL EXCAVATE SO AS TO PROVIDE A MINIMUM OF 8" GRANULAR CUSHION BENEATH THE PIPE.
  - INSTALLATION OF ANY PIPE WITHIN 4' OF THE BACK OF CURB OR EDGE OF STREET, SHALL REQUIRE THE SAME EMBEDMENT AS FOR INSTALLATION IN STREETS.
  - CONTRACTOR SHALL SHAPE EMBEDMENT MATERIAL TO ACCOMODATE THE BELLED JOINTS OF PIPES TO INSURE SUPPORT THROUGHOUT THEIR LENGTH. BELLED JOINTS SHALL HAVE A MINIMUM OF 2" OF FILL BENEATH THEM.
  - IF EXCAVATED MATERIAL IS NOT ACCEPTABLE TO THE ENGINEER FOR BACKFILL, CONTRACTOR WILL PROVIDE SELECT IMPORT MATERIAL AS REQUIRED.
  - FOR TRENCHING, BEDDING, AND BACKFILL, SEE TCEQ CHAPTER 317.2 "BEDDING".
  - FOR ROCK AND OTHER CONDITIONS NOT SPECIFIED HERE, REFER TO ENGINEER FOR BACKFILL DESIGN.
  - GREEN TAPE TO BE USED FOR WASTEWATER MAINS, BLUE TAPE TO BE USED FOR WATER MAINS.