

CITY OF AVON, OHIO

STANDARD CONSTRUCTION DRAWINGS

CONTAINS UPDATES THROUGH MAY 29, 2024

IN ACCORDANCE WITH CITY OF AVON ORDINANCE NO. 61-24

ADOPTED MAY 29, 2024

EFFECTIVE DATE MAY 29, 2024



CITY OF AVON
EST 1814

[illegible]

AVON CITY HALL
36080 CHESTER ROAD
AVON, OHIO 44011
(440) 937 7800

**AVON BUILDING DEPARTMENT
36080 CHESTER ROAD
AVON, OHIO 44011
(440) 937 7811**

**AVON SERVICE DEPARTMENT
35400 SCHNEIDER COURT
AVON, OHIO 44011
(440) 937 5729**

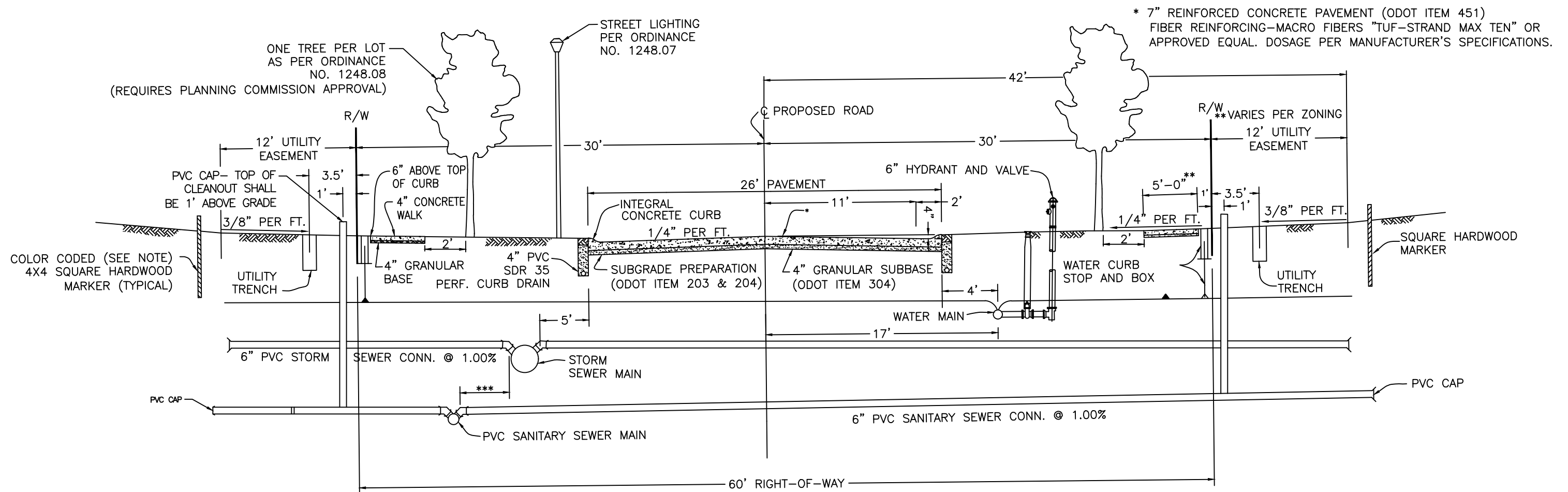
**AVON UTILITY BUILDING
35030 DETROIT ROAD
AVON, OHIO 44011
(440) 937 5714**

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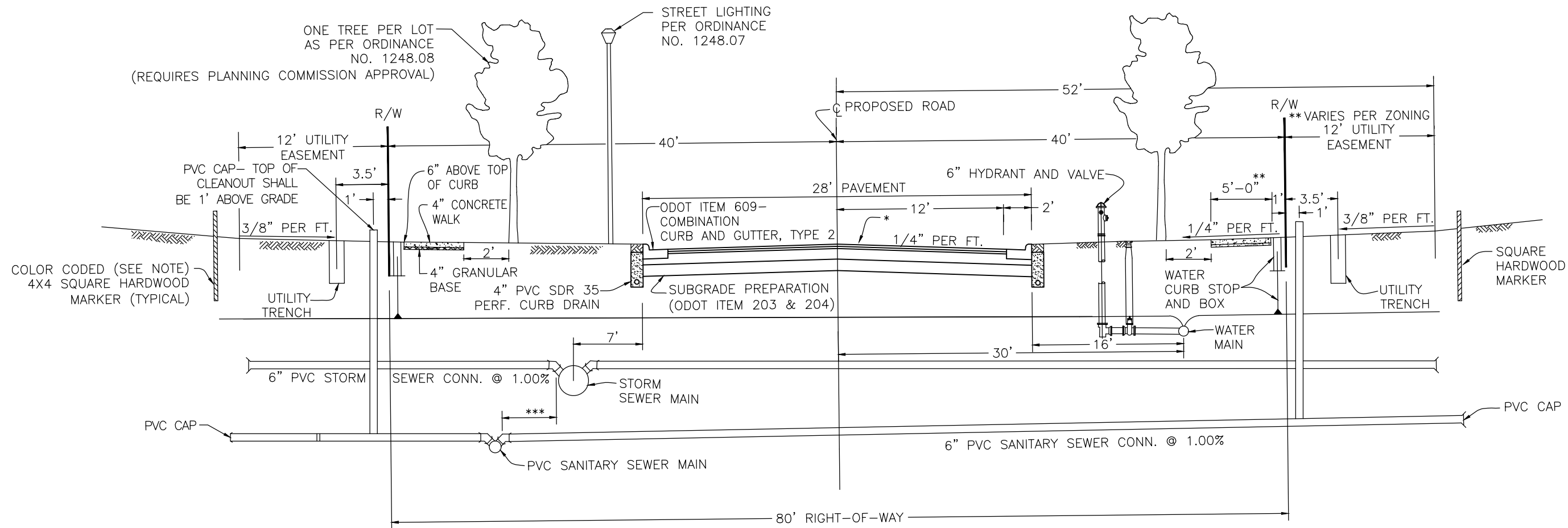
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GENERAL NOTES:

- CURB CUT MARKINGS ON THE STREET SIDE WILL BE USED REFLECTING THE FOLLOWING:
W = WATER, + = SAN, - = STORM
- 4x4 SQUARE FIELD MARKERS WILL BE USED AT THE SANITARY AND STORM LATERAL AND WATER CONNECTION TERMINI USING THE FOLLOWING HARDWOOD COLOR CODE: BLUE = WATER, ORANGE/RED = SAN, GREEN = STORM
- 10 FT. BARREL TO BARREL SHALL BE MAINTAINED BETWEEN WATER & STORM SERVICES WITH A MINIMUM OF 10 FT. DISTANCE BARREL TO BARREL BETWEEN SANITARY AND WATER SERVICES.
- CURB STOP & BOX ARE TO BE LOCATED ONE FOOT WITHIN THE RIGHT-OF-WAY.
METER PITS SHALL BE PLACED JUST OUTSIDE OF THE UTILITY EASEMENT ON THE PROPERTY SIDE AS CLOSE TO THE RIGHT-OF-WAY AS POSSIBLE.
METER PIT LIDS SHALL BE SET TO FINISH GRADE. THIS SHALL BE DONE IN ALL CASES WHERE POSSIBLE. CITY APPROVAL WILL BE REQUIRED FOR ALL OTHER PROPOSED LOCATIONS.
- WATER SERVICE CONNECTION SHALL BE ONE CONTINUOUS PIECE OF 1" PIPE (AT A MINIMUM) FROM THE CURB STOP TO THE MAIN SHUT-OFF VALVE AT THE HOUSE. CONTRACTOR SHALL SLEEVE THE UTILITY EASEMENT WITH 2" RIGID PVC PIPE.
- TYPICAL SECTION SHOWS THE PREFERRED CROSS SECTION, HOWEVER, THE ACTUAL MAY VARY SUBJECT TO THE APPROVAL OF THE CITY ENGINEER.
- THE GAS MAIN IS TO BE LOCATED ON THE SAME SIDE OF THE ROADWAY AS THE WATER MAIN, 36"-40" IN DEPTH FROM PROPOSED FINISHED GRADE AND LOCATED A MINIMUM OF 5 FEET HORIZONTALLY OFFSET FROM THE WATER MAIN (MEASURED CENTER TO CENTER) TOWARD THE RIGHT-OF-WAY LINE AND SHALL BE NO LESS THAN 3 FEET INSIDE OF THE RIGHT-OF-WAY LINE.
- PROPERTY LINE S/L MARKINGS ARE TO BE PLACED INTO THE CONC. CURBING. MARKINGS ARE TO BE A MINIMUM 1/4" DIAMETER DRILL HOLES, 1/2" IN DEPTH.
- ANY FILL PLACEMENT IN R/W AND BUILDING PAD AREAS ARE TO BE CONTROLLED FILL TO BE COMPACTION TESTED TO 98% COMPACTION BY A QUALIFIED TESTING LABORATORY WITH THE TEST RESULTS SUBMITTED TO THE SERVICE DIRECTOR AND OR BLDG. INSPECTOR.
- AREAS BETWEEN THE R/W LINE AND PAVED ROADWAY SHALL BE SEED AND MULCHED PRIOR TO ACCEPTANCE BY THE CITY.
- CLAY DAM TO BE PROVIDED 6 FT. FROM THE LATERAL TERMINUS FOR SANITARY, STORM, AND WATER.
- SANITARY M.H.'S SHALL BE LOCATED A MAXIMUM OF 15 FT. FROM BACK OF CURB.
- THE PLACEMENT OF THE FIRE HYDRANTS SHALL BE AT 300 FEET INTERVALS, HOWEVER, IN NO CASE SHALL THEY BE SPACED GREATER THAN 350 FEET MEASURED IN A STRAIGHT LINE DISTANCE. WATER VALVES TO BE LOCATED EVERY 800 FEET MAXIMUM.
- IN THE CASE OF EXISTING ROADWAYS WHERE WIDENING OF THE ROADWAY IS REQUIRED, UTILITIES SHALL BE RELOCATED IN ACCORDANCE WITH THE DIMENTIONAL REQUIREMENT FOR A LOCAL ROADWAY.
- ADDITIONAL BASE STABILIZATION IF NEEDED SHALL BE PER THE GEOTECHNICAL ENGINEER AND APPROVED BY THE CITY ENGINEER.
- *** IF THE STORM SEWER SIZE IS LESS THAN OR EQUAL TO 24" THE OUT-TO-OUT SEPARATION SHALL BE 5'. IF THE STORM SEWER IS MORE THAN 24" THE OUT-TO-OUT SEPARATION SHALL BE 7'.
- PAVEMENT GRANULAR SUBBASE SHALL BE ODOT 304 LIMESTONE. MODIFIED 304 LIMESTONE SHALL ALSO BE ACCEPTABLE AS FOLLOWS:
40% OR LESS PASSING THE #4 SIEVE
15% OR LESS PASSING THE #30 SIEVE
6% OR LESS PASSING THE #200 SIEVE
- CONCRETE PAVEMENT SHALL BE POURED FROM THE SIDE ON TEMPORARY HAUL ROADS. TRUCKS SHALL NOT BE PERMITTED ON THE NEW SUBBASE.

CITY OF AVON CONSTRUCTION STANDARDS AND SPECIFICATIONS		
TYPICAL LOCAL ROADWAY SECTION & GENERAL NOTES	ADOPTION ORDINANCE	DATE
STANDARD CONSTRUCTION DRAWING G-1	61-24	5/29/24



GENERAL NOTES:

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15% OR LESS PASSING THE #30 SIEVE
6% OR LESS PASSING THE #200 SIEVE

*ODOT ITEM 441 - 1-1/4" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG 64-22

ODOT ITEM 407 - TACK COAT FOR SURFACE COURSE

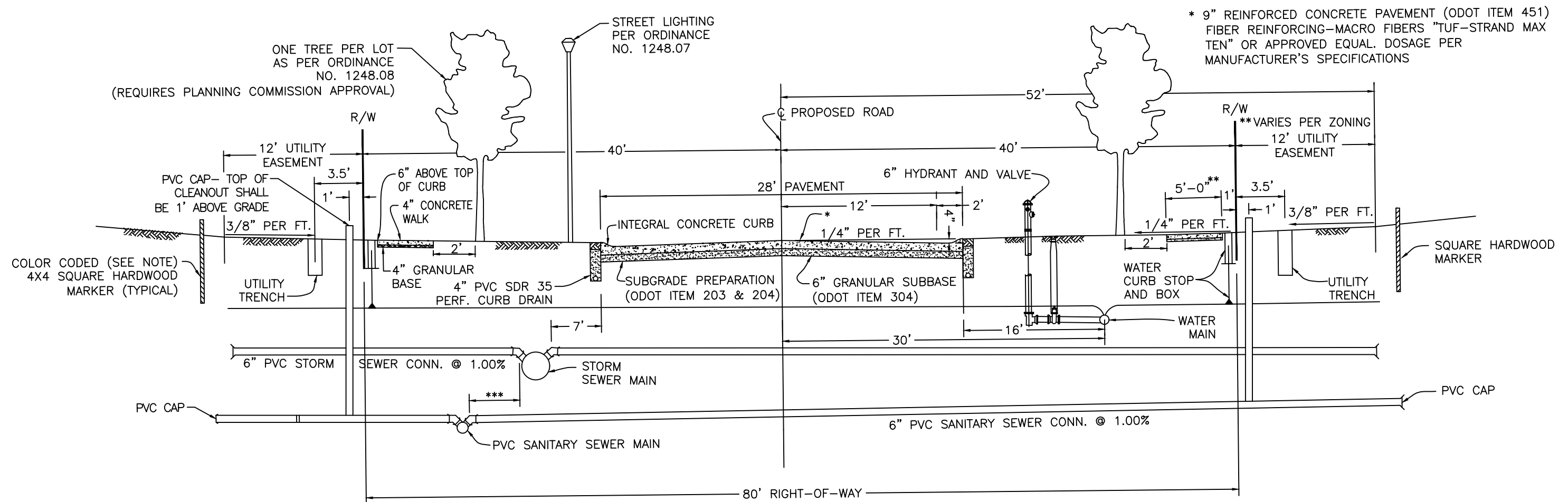
ODOT ITEM 441 - 1-3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG 64-22

ODOT ITEM 407 - TACK COAT FOR INTERMEDIATE COURSE

ODOT ITEM 301 - 6" ASPHALT CONCRETE BASE

ODOT ITEM 304 - 6" LIMESTONE AGGREGATE BASE

CITY OF AVON CONSTRUCTION STANDARDS AND SPECIFICATIONS		
TYPICAL COLLECTOR ROADWAY SECTION & GENERAL NOTES OPTION 1	ADOPTION ORDINANCE	DATE
STANDARD CONSTRUCTION DRAWING G-2	61-24	5/29/24

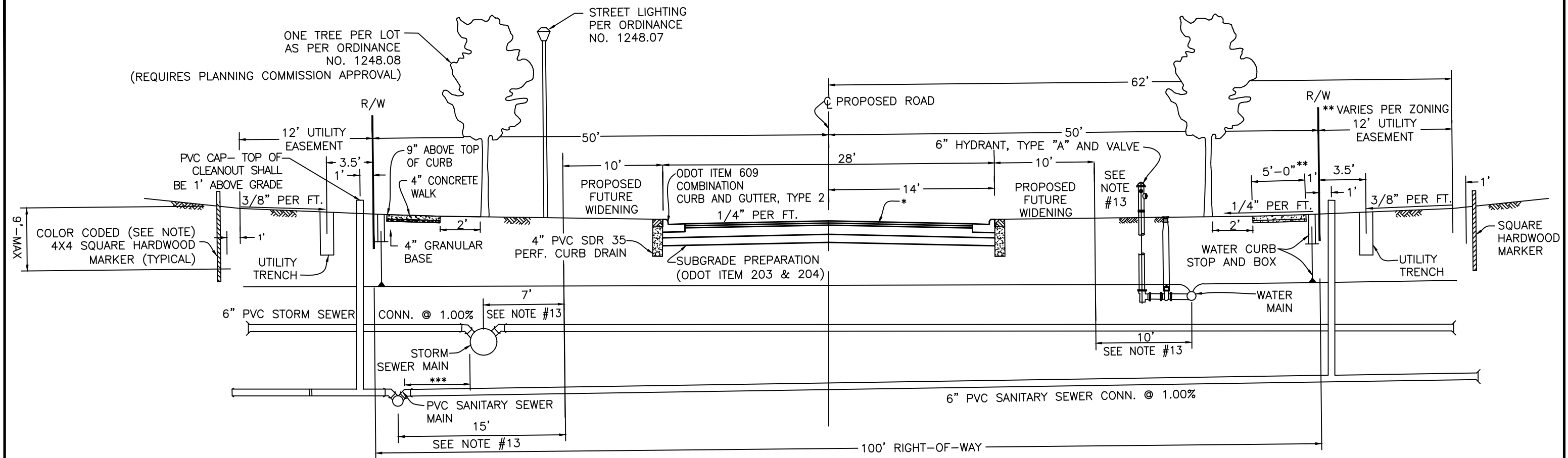


GENERAL NOTES:

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W = WATER, + = SAN, - = STORM
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METER PIT LIDS SHALL BE SET TO FINISH GRADE. THIS SHALL BE DONE IN ALL CASES WHERE POSSIBLE. CITY APPROVAL WILL BE REQUIRED FOR ALL OTHER PROPOSED LOCATIONS.
- WATER SERVICE CONNECTION SHALL BE ONE CONTINUOUS PIECE OF 1" PIPE (AT A MINIMUM) FROM THE CURB STOP TO THE MAIN SHUT-OFF VALVE AT THE HOUSE. CONTRACTOR SHALL SLEEVE THE UTILITY EASEMENT WITH 2" RIGID PVC PIPE.
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- PROPERTY LINE S/L MARKINGS ARE TO BE PLACED INTO THE CONC. CURBING. MARKINGS ARE TO BE A MINIMUM 1/4" DIAMETER DRILL HOLES, 1/2" IN DEPTH.
- ANY FILL PLACEMENT IN R/W AND BUILDING PAD AREAS ARE TO BE CONTROLLED FILL TO BE COMPACTION TESTED TO 98% COMPACTION BY A QUALIFIED TESTING LABORATORY WITH THE TEST RESULTS SUBMITTED TO THE SERVICE DIRECTOR AND OR BLDG. INSPECTOR.
- AREAS BETWEEN THE R/W LINE AND PAVED ROADWAY SHALL BE SEED AND MULCHED PRIOR TO ACCEPTANCE BY THE CITY.
- CLAY DAM TO BE PROVIDED 6 FT. FROM THE LATERAL TERMINUS FOR SANITARY, STORM, AND WATER.
- SANITARY M.H.'S SHALL BE LOCATED A MAXIMUM OF 15 FT. FROM BACK OF CURB.
- THE PLACEMENT OF THE FIRE HYDRANTS SHALL BE AT 300 FEET INTERVALS, HOWEVER, IN NO CASE SHALL THEY BE SPACED GREATER THAN 350 FEET MEASURED IN A STRAIGHT LINE DISTANCE. WATER VALVES TO BE LOCATED EVERY 800 FEET MAXIMUM.
- IN THE CASE OF EXISTING ROADWAYS WHERE WIDENING OF THE ROADWAY IS REQUIRED, UTILITIES SHALL BE RELOCATED IN ACCORDANCE WITH THE DIMENSIONAL REQUIREMENT FOR A LOCAL ROADWAY.
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- PAVEMENT GRANULAR SUBBASE SHALL BE ODOT 304 LIMESTONE. MODIFIED 304 LIMESTONE SHALL ALSO BE ACCEPTABLE AS FOLLOWS:
40% OR LESS PASSING THE #4 SIEVE
15% OR LESS PASSING THE #30 SIEVE
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- CONCRETE PAVEMENT SHALL BE POURED FROM THE SIDE ON TEMPORARY HAUL ROADS. TRUCKS SHALL NOT BE PERMITTED ON THE NEW SUBBASE.

* 9" REINFORCED CONCRETE PAVEMENT (ODOT ITEM 451)
FIBER REINFORCING—MACRO FIBERS "TUF-STRAND MAX
TEN" OR APPROVED EQUAL. DOSAGE PER
MANUFACTURER'S SPECIFICATIONS

CITY OF AVON CONSTRUCTION STANDARDS AND SPECIFICATIONS		
TYPICAL COLLECTOR ROADWAY SECTION & GENERAL NOTES OPTION 2	ADOPTION ORDINANCE	DATE
STANDARD CONSTRUCTION DRAWING G-3	61-24	5/29/24



GENERAL NOTES:

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- CLAY DAM TO BE PROVIDED 6 FT. FROM THE LATERAL TERMINUS FOR SANITARY, STORM, AND WATER.
- SANITARY M.H.'S SHALL BE LOCATED A MAXIMUM OF 15 FT. FROM BACK OF CURB.
- THE PLACEMENT OF THE FIRE HYDRANTS SHALL BE AT 300 FEET INTERVALS, HOWEVER, IN NO CASE SHALL THEY BE SPACED GREATER THAN 350 FEET MEASURED IN A STRAIGHT LINE DISTANCE. WATER VALVES TO BE LOCATED EVERY 800 FEET MAXIMUM.
- IN THE CASE OF EXISTING ROADWAYS WHERE WIDENING OF THE ROADWAY IS REQUIRED, UTILITIES SHALL BE RELOCATED IN ACCORDANCE WITH THE DIMENTIONAL REQUIREMENT FOR A LOCAL ROADWAY.
- ADDITIONAL BASE STABILIZATION IF NEEDED SHALL BE PER THE GEOTECHNICAL ENGINEER AND APPROVED BY THE CITY ENGINEER.
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40% OR LESS PASSING THE #4 SIEVE
15% OR LESS PASSING THE #30 SIEVE
6% OR LESS PASSING THE #200 SIEVE

*ODOT ITEM 441 - 1-1/4" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG 64-22

ODOT ITEM 407 - TACK COAT FOR SURFACE COURSE

ODOT ITEM 441 - 1-3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG 64-22

ODOT ITEM 407 - TACK COAT FOR INTERMEDIATE COURSE

ODOT ITEM 301 - 8" ASPHALT CONCRETE BASE

ODOT ITEM 304 - 6" LIMESTONE AGGREGATE BASE

CITY OF AVON CONSTRUCTION STANDARDS AND SPECIFICATIONS		
TYPICAL ARTERIAL ROADWAY SECTION & GENERAL NOTES	ADOPTION ORDINANCE	DATE
STANDARD CONSTRUCTION DRAWING G-4	61-24	5/29/24

"AS-BUILT" REQUIREMENTS

AS–BUILTS SHALL BE PREPARED AND SUBMITTED IN ACCORDANCE WITH AVON CODIFIED ORDINANCES 1050 AND 1244.

AS–BUILT PLAN SET SHALL HAVE A PROFESSIONAL SURVEYOR’S CERTIFICATION STATEMENT, STAMP, AND DATE.

IF AS–BUILT SET CONTAINS AN SCM, AN AS–BUILT CERTIFICATION INCLUDING AS–BUILT SURVEY AND INSPECTION MUST BE SEALED AND DATED BY A PROFESSIONAL ENGINEER AND SURVEYOR WITH A STATEMENT CERTIFYING THAT THE SCMS, AS DESIGNED AND INSTALLED MEET THE REQUIREMENTS OF THE COMPREHENSIVE STORM WATER MANAGEMENT PLAN APPROVED BY THE CITY ENGINEER.

THE FOLLOWING LISTED ITEMS ARE TO APPEAR ON A SET OF "AS–BUILT" PLANS SUBMITTED TO THE CITY.

SANITARY SYSTEM

- 1. SANITARY SYSTEM REVISIONS I.E., RIM, INVERTS, PIPE SLOPES AND MANHOLE LOCATIONS. PRESENT CORRECTED INFORMATION OR PLAN SET WITH A LINE THROUGH PROPOSED DATA.
- 2. SANITARY WYE LOCATIONS FROM DSM, RISERS WITH ELEVATIONS, LATERAL LENGTH AND DEPTH AT TERMINUS.

STORM SYSTEM

- 1. STORM SYSTEM REVISIONS, I.E. RIM, INVERTS, PIPE SLOPES AND MANHOLE AND CATCH BASIN LOCATIONS. PRESENT CORRECTED INFORMATION OR PLAN SET WITH A LINE THROUGH PROPOSED DATA.
- 2. STORM KOR–N–BOOT LOCATIONS FROM DSM, LATERAL LENGTH AND DEPTH AT TERMINUS.

WATER MAIN

- 1. LOCATION REVISION IN PLAN VIEW, DEPTH REVISIONS IN PROFILE.
- 2. LINE VALVE, HYDRANT AND BEND LOCATIONS AS INSTALLED.
- 3. SERVICE LINE CORPORATION LOCATIONS FROM A HYDRANT OR VALVE IN A STRAIGHT LINE DISTANCE, LENGTH TO CURB STOP, CURB STOP LOCATION, LENGTH FROM CURB STOP TO TERMINUS, WITH DEPTH AT TERMINUS.

STORM WATER MANAGEMENT SYSTEM

- 1. INVERT AND SIZES OF ALL OUTLET STRUCTURE PIPES/ORIFICES/WEIRS. INCLUDE RIM ELEVATION.
- 2. INVERTS, SIZES, SLOPES OF ALL INLET PIPES.
- 3. DETENTION VOLUME VERIFICATION COMPLETE WITH CONTOUR AREA TABLE AND SPOT GRADE ELEVATIONS.
- 4. OVERFLOW LOCATION, ELEVATION, AND WIDTH.
- 5. CALCULATIONS VERIFYING AS–BUILT DATA IS SUFFICIENT TO MEET STORM WATER MANAGEMENT REQUIREMENTS AS APPROVED BY THE CITY ENGINEER PRIOR TO CONSTRUCTION.

ROADS

- 1. CENTERLINE ELEVATIONS AT ALL POINTS OF INFLECTION.
- 2. CENTERLINE ELEVATIONS AT ALL INTERSECTIONS.

TRAFFIC

- 1. ALL AT GRADE OR ABOVE GROUND TRAFFIC IMPROVEMENTS SHALL BE LOCATED, I.E., SIGNAL POLES, PEDESTRIAN POLES, CONTROLLERS, ETC.

GENERAL

- 1. SANITARY, STORM AND WATER SERVICE LOCATIONS IF DIFFERENT THAN PLAN PROPOSAL.
- 2. ALL PIPE CROSSING CLEARANCE INFORMATION.
- 3. LOCATE ANY AND ALL EXISTING ITEMS ENCOUNTERED DURING EXCAVATION I.E., GAS LINES/SERVICES. LATERALS, DRAIN LINES, M.H.’S, C.B’S, WATER MAINS/SERVICES, INDICATING STATION DEPTH AND SIZE.

"AS-BUILT" SUBMISSION PROCEDURE

- 1. FIELD INSPECTORS MARKED–UP SET OF PLANS ARE TO BE PROVIDED TO THE CITY.
- 2. MARKED–UP PLANS ARE GIVEN TO THE PROJECT DESIGN ENGINEER TO REVISE PLANS BASED ON HIS SURVEY INFORMATION AND INSPECTION MARK–UPS, THUS BECOMING A SET OF "AS–BUILT" PLANS.
- 3. MARKED–UP PLANS AND A SET OF BLUE LINE ARE TO BE SUBMITTED TO THE CITY BY THE ENGINEER.
- 4. THE CITY WILL LOG–IN THE "AS–BUILTS" AND FORWARD THE MARKED–UP BLUE LINE PLANS TO THE CITY ENGINEER’S OFFICE FOR REVIEW. THE CITY ENGINEER’S OFFICE WILL ASSURE THAT ALL MARK–UP INFORMATION HAS BEEN TRANSFERRED TO THE "AS–BUILT" PLAN SET.
- 5. THE CITY ENGINEER’S OFFICE WILL PROVIDE THE CITY WITH REVIEW COMMENTS AND REVISION MARK–UPS. BOTH PLAN SETS ARE TO BE GIVEN TO THE CITY WITH THE COMMENTS.
- 6. THE CITY WILL FORWARD COMMENTS AND ADDITIONAL MARK–UPS TO THE DESIGN ENGINEER.
- 7. THE DESIGN ENGINEER WILL MAKE THE APPROPRIATE REVISIONS TO THE "AS–BUILTS" IF ANY ARE NEEDED.
- 8. IF REVISIONS ARE NEEDED THE DESIGN ENGINEER WILL RE–SUBMIT A REVISED "AS–BUILT" BLUE LINE TO THE CITY FOR CONFIRMATION.
- 9. UPON CONFIRMATION THE DESIGN ENGINEER WILL PROVIDE THE CITY WITH AN "AS–BUILT" DIGITAL COPY. IF NO REVISIONS ARE REQUIRED THE CITY WILL SO NOTIFY THE DESIGN ENGINEER. AN "AS–BUILT" DIGITAL COPY AND 1 HARD COPY WILL THEN BE PROVIDED TO THE CITY.
- 10. THE CITY WILL FORWARD THE DIGITAL COPY TO THE CITY ENGINEER’S OFFICE FOR A PERMANENT "AS–BUILT" RECORD OF THE PROJECT.
- 11. AS–BUILTS WILL BE PREPARED AND SUBMITTED PRIOR TO FINAL ACCEPTANCE.

CITY OF AVON CONSTRUCTION STANDARDS AND SPECIFICATIONS		
AS-BUILT REQUIRMENTS	ADOPTION ORDINANCE	DATE
STANDARD CONSTRUCTION DRAWING G-5	61-24	5/29/24
		SHEET 1 OF 2

FINAL WALK-THROUGH ACCEPTANCE CHECKLIST

THE FOLLOWING ITEMS WILL BE INSPECTED AND VERIFIED TO BE IN COMPLIANCE PRIOR TO THE ACCEPTANCE OF A PROJECT BY THE CITY OF AVON.

SANITARY SEWER

- 1. INSTALL DSM PLUG
- 2. LATERALS MARKED AND COLORED. (RED)
- 3. MANHOLE CASTINGS ADJUSTED TO GRADE.
- 4. CASTING AND RISER PORRIDGED.
- 5. PIPE INVERTS MORTARED.
- 6. MANHOLES CLEANED.
- 7. LIFT HOLES MORTARED.
- 8. AIR TEST PERFORMED.
- 9. MANDREL TEST PERFORMED.
- 10.MANHOLE VACUUM TEST PERFORMED.
- 11.VIDEO AND FLUSHING PERFORMED.
- 12.REMOVE DSM PLUG.

STORM SEWER

- 1. LATERALS MARKED AND COLORED, (GREEN)
- 2. MANHOLE CASTINGS ADJUSTED TO GRADE.
- 3. CASTING AND RISER PORRIDGED.
- 4. CONDUITS BRICK/MORTARED, IN/OUT INTO STRUCTURES.
- 5. INVERTS POURED.
- 6. MANHOLES CLEANED OUT.
- 7. CATCH BASIN INSTALLED.
- 8. CATCH BASIN CONDUITS MORTARED IN/OUT.
- 9. CATCH BASIN INVERTS POURED.
- 10.CATCH BASIN BOX OUTS POURED.
- 11.CATCH BASIN GRATES FABRIC COVERED.
- 12.DETENTION BASIN CONFIRMED.
- 13.MANDREL TEST PERFORMED THRU 18” DIAMETER.
- 14.VIDEO AND FLUSHING PERFORMED ON ALL PIPES.

WATERLINES

- 1. LATERALS MARKED AND COLORED. (BLUE)
- 2. HYDROSTATIC PRESSURE TEST PERFORMED.
- 3. BACTERIA TEST APPROVED BY CITY.
- 4. LINE VALVES AND WATCH VALVES KEYED.
- 5. SERVICES BOXES CHECKED/KEYED.
- 6. HYDRANT OIL LEVEL CHECKED.
- 7. HYDRANT KEY PROVIDED TO SERVICE DEPARTMENT.
- 8. HYDRANTS ARE TO BE REPAINTED AT THE DIRECTION OF THE CITY WHEN NEEDED.

3-YEAR WALK-THROUGH

AT 2 YEARS AND 8 MONTHS THE CONTRACTOR AND A CITY REPRESENTATIVE SHALL WALK THE SITE AND VISUALLY INSPECT THE CONDITION OF THE CLEANOUTS. THE CONTRACTOR SHALL CLEAN AND TELEWISE ALL SEWERS. THE CONTRACTOR SHALL REMEDY ALL DEFICIENCIES TO THE SATISFACTION OF THE CITY.

PAVEMENT

- 1. ALL JOINTS TARRED.
- 2. BACK OF CURBS MORTARED.
- 3. HANDICAPPED RAMP DEPRESSIONS IN PLACE.
- 4. UNDERDRAINS INSTALLED AND CONNECTED TO C.B.
- 5. MONUMENT BOXES INSTALLED.
- 6. SURVEY PINS SET.
- 7. UTILITY CURB MARKINGS COMPLETED.
- 8. ROADWAY BROOM SWEEP AN CLEANED.
- 9. ALL REQUIRED SIGNAGE INSTALLED.
- 10. SUBLOT CURB DRILL HOLE MARKINGS COMPLETED.

RIGHT-OF-WAY

- 1. UTILITY CONDUITS CROSSING PAVEMENT INSTALLED.
- 2. GAS MAINS INSTALLED.
- 3. ELECTRIC CONDUIT/ TRANSFORMERS/STREET LIGHTS INSTALLED.
- 4. FINAL GRADING COMPLETED.
- 5. SEEDING AND MULCHING COMPLETED.
- 6. EROSION CONTROL IN PLACE.

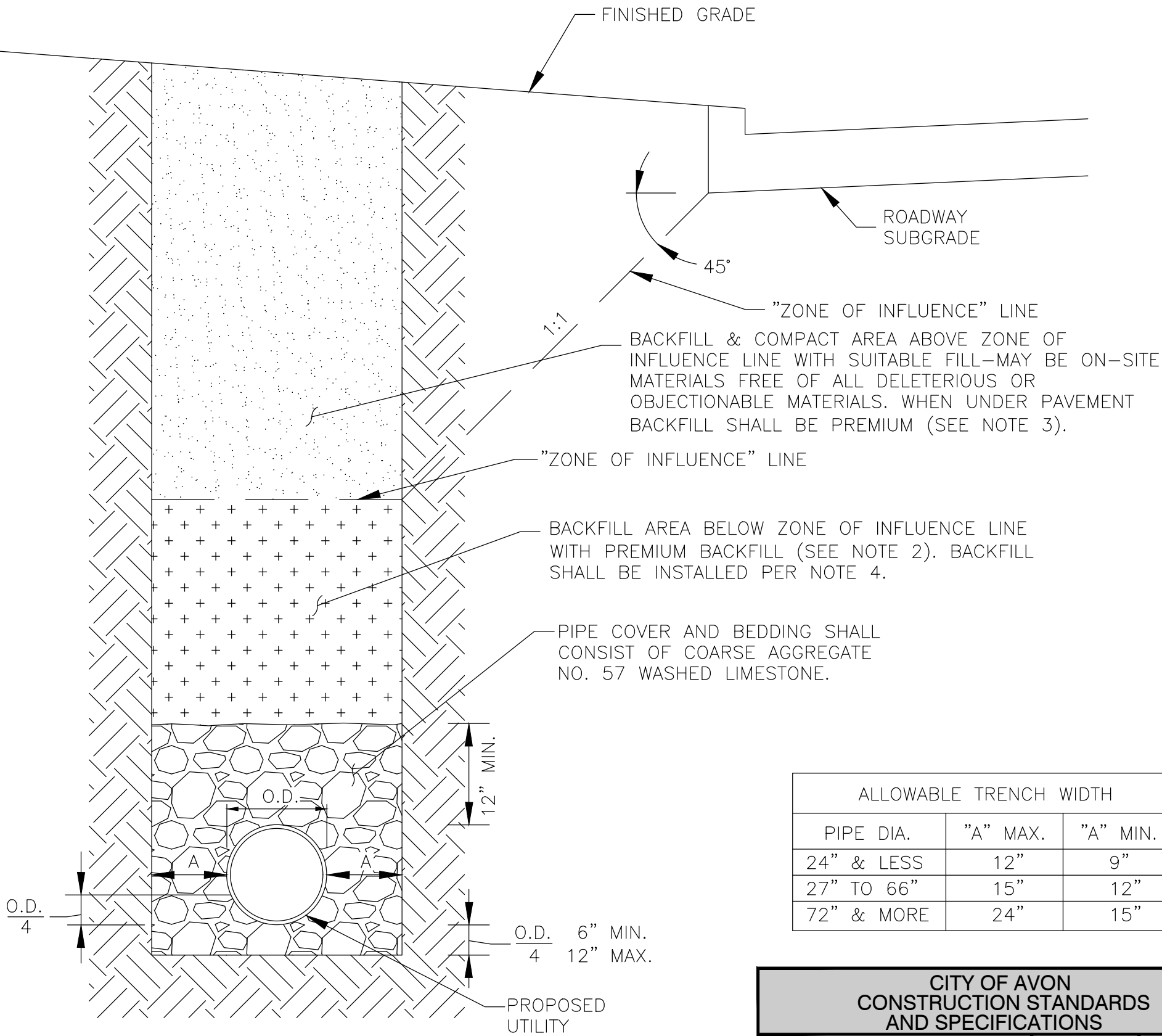
GENERAL

- 1. EPA WATER/SANITARY PERMIT TO INSTALL.
- 2. NPDES–STORM APPROVAL.
- 3. FINANCIAL SETTLEMENTS.
- 4. CLOMR SUBMITTALS.

CITY OF AVON CONSTRUCTION STANDARDS AND SPECIFICATIONS		
AS-BUILT REQUIRMENTS	ADOPTION ORDINANCE	DATE
STANDARD CONSTRUCTION DRAWING G-5	61-24	5/29/24
		SHEET 2 OF 2

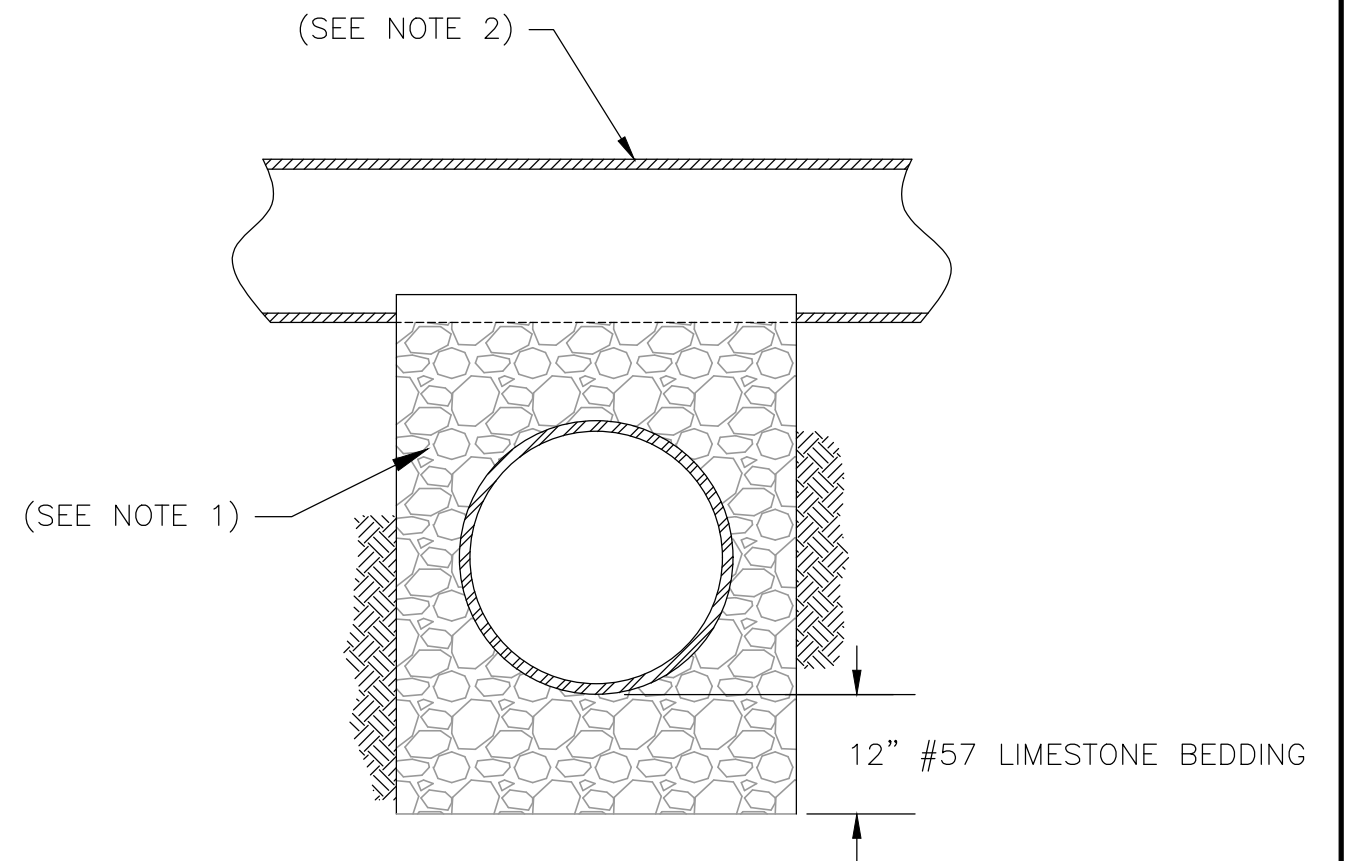
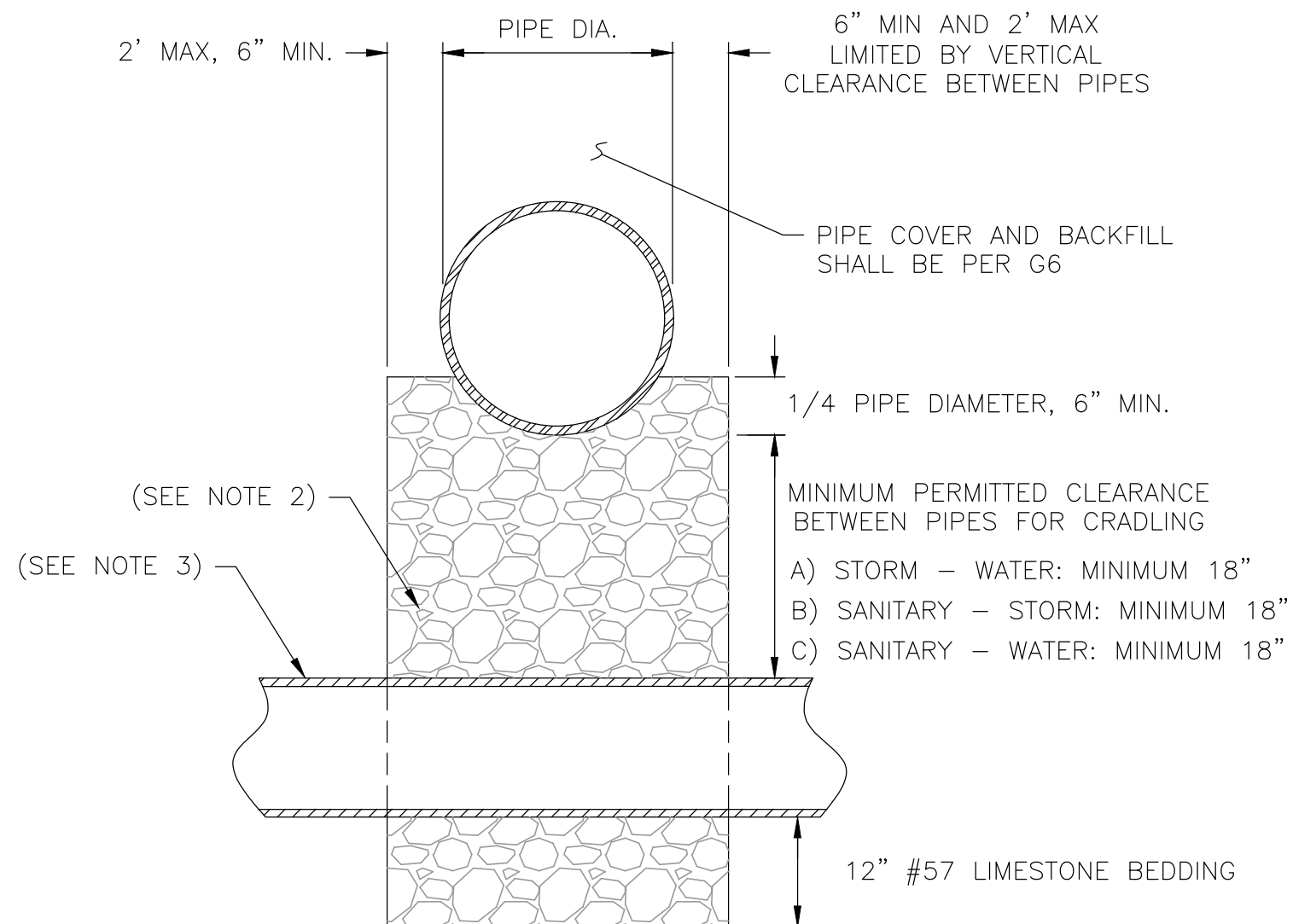
NOTES

- 1. CONTRACTOR SHALL PROVIDE GRADE STAKES OR OTHER REFERENCE POINTS AS DIRECTED BY THE CITY ENGINEER TO AID FIELD INSPECTION PERSONNEL IN THE DETERMINATION OF THE ZONE OF INFLUENCE LINE ELEVATION.
- 2. ACCEPTABLE PREMIUM BACKFILL MATERIALS SHALL CONSIST OF COURSE INTERLOCKING LIMESTONE AGGREGATE NO. 304. NO SLAG OR LIMESTONE SCREENINGS.
- 3. PREMIUM BACKFILL SHALL BE INSTALLED TO THE TOP OF SUBGRADE FOR TRENCHES UNDER WALKS, DRIVES, AND PAVEMENTS FOR CURRENT AND FUTURE PHASES.
- 4. BACKFILL MATERIALS UNDER EXISTING OR FUTURE PAVEMENT SHALL BE THOROUGHLY COMPACTED TO A MINIMUM OF 98% COMPACTION BY TAMPING IN LAYERS OF NOT MORE THAN 1 FOOT IN DEPTH.
- 5. THE SURFACE AT THE BOTTOM OF THE TRENCH SHALL BE FREE OF ANY PROTRUSIONS WHICH MAY CAUSE POINT LOADING OF ANY PORTION OF THE PIPE AND SHALL PROVIDE A FIRM, STABLE AND UNIFORM SUPPORT FOR THE PIPE.
- 6. INITIAL BACKFILL OVER THE TOP OF PIPE IN USING COMPACTION EQUIPMENT. AVOID CONTACT WITH THE PIPE AND DO NOT COMPACT DIRECTLY OVER THE PIPE UNTIL SUFFICIENT BACKFILL HAS BEEN PLACED OVER THE PIPE TO AVOID DAMAGES TO THE PIPE. LITTLE OR NO TAMPING OF THE INITIAL BACKFILL DIRECTLY OVER AND AROUND THE PIPE TO A POINT 12 INCHES ABOVE THE PIPE SHALL BE PERMITTED. FINAL BACKFILL SHALL BE COMPACTED TO AN APPROVED DENSITY EQUAL TO ADJOINING SOIL MATERIALS AND AS STATED ABOVE FOR TRENCHES UNDER EXISTING OR PROPOSED PAVEMENT.
- 7. SEE DETAIL W-2 FOR WATER MAIN TRENCH.



ALLOWABLE TRENCH WIDTH		
PIPE DIA.	"A" MAX.	"A" MIN.
24" & LESS	12"	9"
27" TO 66"	15"	12"
72" & MORE	24"	15"

CITY OF AVON CONSTRUCTION STANDARDS AND SPECIFICATIONS		
STORM AND SANITARY TRENCH DETAILS	ADOPTION ORDINANCE	DATE
STANDARD CONSTRUCTION DRAWING G-6	61-24	5/29/24

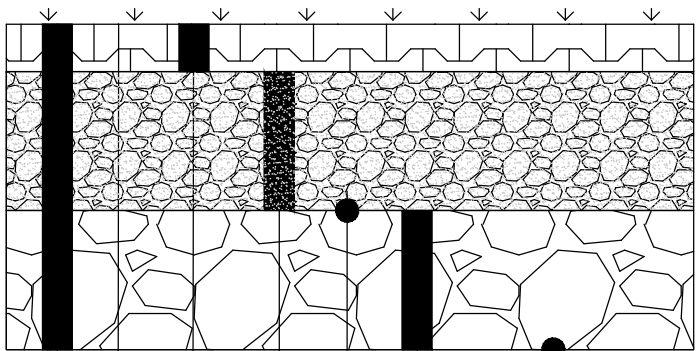


NOTE:

1. IN NO CASE SHALL THE CLEARANCE BE PERMITTED TO BE LESS THAN 6".
2. CRADLING MAY BE PERMITTED BY THE CITY. HOWEVER, THE USE OF A CASING OR D.I.P. SHALL BE REQUIRED WHEN PIPE CLEARANCE IS LESS THAN THE MINIMUM PERMITTED CLEARANCE DETAILED ABOVE, THE CRADLING MATERIAL SHALL BE NO. 57 LIMESTONE, OR AS DIRECTED BY THE CITY ENGINEER.
3. SEWER PIPE IS TO BE 20 FOOT MINIMUM LENGTH OF DUCTILE IRON PIPE CENTERED AT THE CROSSING. SEE SHEET SAN-1.

CITY OF AVON CONSTRUCTION STANDARDS AND SPECIFICATIONS		
MONOLITHIC CRADLING OF UPPER PIPE	ADOPTION ORDINANCE	DATE
STANDARD CONSTRUCTION DRAWING G-7	61-24	5/29/24

OPTION 1



SUBGRADE COMPACTION
PER ODOT 204

6"–NO. 1&2 LIMESTONE
AGGREGATE BASE

GEOGRID MESH OR
GEOFABRIC

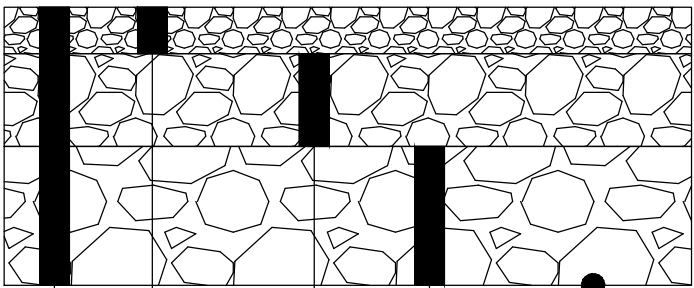
6"–NO. 57 LIMESTONE
AGGREGATE/SOIL MIX

KGRID SELF–CONNECTING GRID TILES: 12" X
12" X 2 INCHES TALL (30.48 X 30.48 X 5.08
CM) MADE OF DURABLE ELASTIC
HIGH–PRESSURE RECYCLED PLASTIC OR
APPROVED EQUAL.
FILL MATERIAL TOPSOIL.

LAWN/GRASS

EXCAVATION AND EMBANKMENT
PER ODOT 203

OPTION 2



SUBGRADE COMPACTION
PER ODOT 204

6"–NO.1 & NO.2 LIMESTONE
AGGREGATE BASE

4"–NO. 57 LIMESTONE
AGGREGATE BASE

2"–LIMESTONE AGGREGATE,
PER ODOT 304

EXCAVATION AND EMBANKMENT
PER ODOT 203

- OPTION 1 SHALL BE THE CONSTRUCTION STANDARD.
- OPTION 2 SHALL REQUIRE APPROVAL FROM THE CITY OF AVON'S SERVICE DIRECTOR.

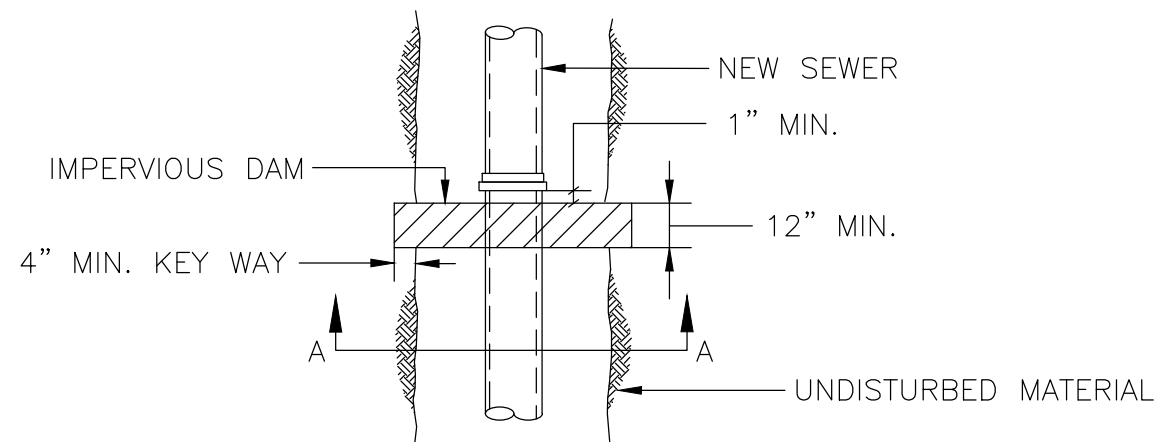
NOTES:

1. DRIVE SHALL BE A MINIMUM 12' WIDTH WITH A CONCRETE APRON AT THE ROADWAY. ADDITIONAL WIDTH MAY BE REQUIRED BY THE UTILITY DEPARTMENT BASED ON SITE CONDITIONS OR UTILITY LOCATIONS
2. PLACEMENT LOCATION MUST BE APPROVED BY THE UTILITY DEPARTMENT.
3. THE ACCESS DRIVE IS TO BE PROOF ROLLED PER THE CURRENT ODOT SPECIFICATION FOR PROOF ROLLING.

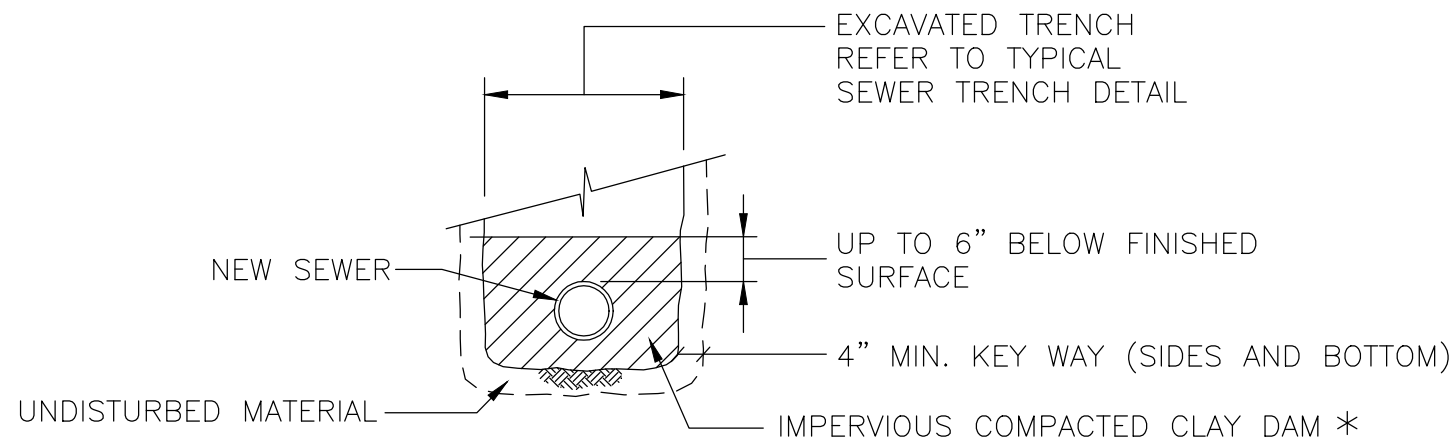
KGRID OR APPROVED EQUAL SPECS:

- CELL WIDTH: 2.1 INCHES
- WALL THICKNESS: 0.0215
- INDIVIDUAL CELL WEIGHT 2.15LBS/FT²
- POROSITY: 82% OPEN
- COMPRESSIVE STRENGTH: IN EXCESS OF 35 UST/FT²
- LOAD BEARING CAPACITY: 35 TONS/AXLE
- THE GRID TILES ARE RESISTANT TO FRACTURE (FLEXIBLE FROM –58 TO +194 F, –50 TO +90 C) RESISTANT TO UV AND FREEZING.
- RESISTANT TO AMMONIA, MOST ACIDS, STREET SALT, GASOLINE, AND PETROLEUM PRODUCTS 100% RECYCLED CONTENT/RECYCLABLE CONTENT.
- MATERIAL: 100% RECYCLED PLASTIC, PROPRIETARY BLEND (<5% PIGMENT, ANTI–UV, CARRIER AGENTS, ETC.)
- COLORANT: STABILITY OF SHAPE: CHANGE OF SHAPE: ABSORPTION OF MOISTURE: ENVIRONMENTAL COMPATIBILITY:
- SOLUBILITY:
- COLORING BY MEANS OF 1–3% PIGMENT, UV–STABILIZED TEMPERATURES FROM –58 TO +194 F (–50 – +90 C) <0.5% (AT MEDIAN TEMPERATURE +68 TO +176 F) 0.01% HARMLESS TO PLANTS, SOIL, AIR, AND WATER MICRO–ORGANISMS, GROUNDWATER NEUTRAL RESISTANT TO ACIDS AND SOLUTIONS (SALT, AMMONIA, ACID RAIN, ETC.) AS WELL AS ALCOHOL.

CITY OF AVON CONSTRUCTION STANDARDS AND SPECIFICATIONS		
UTILITY ACCESS DRIVE	ADOPTION ORDINANCE	DATE
STANDARD CONSTRUCTION DRAWING G-8	61-24	5/29/24



PLAN

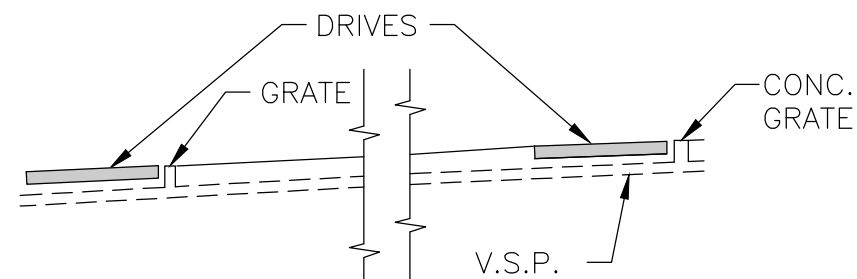
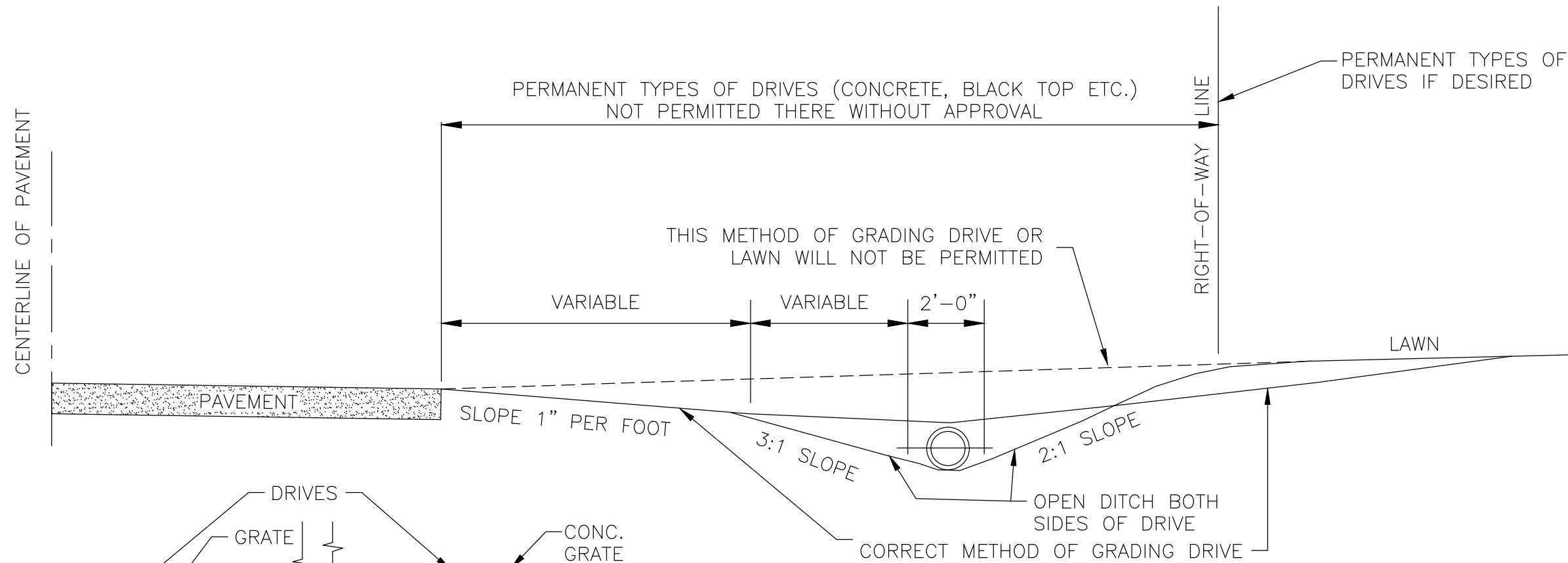


SECTION A-A

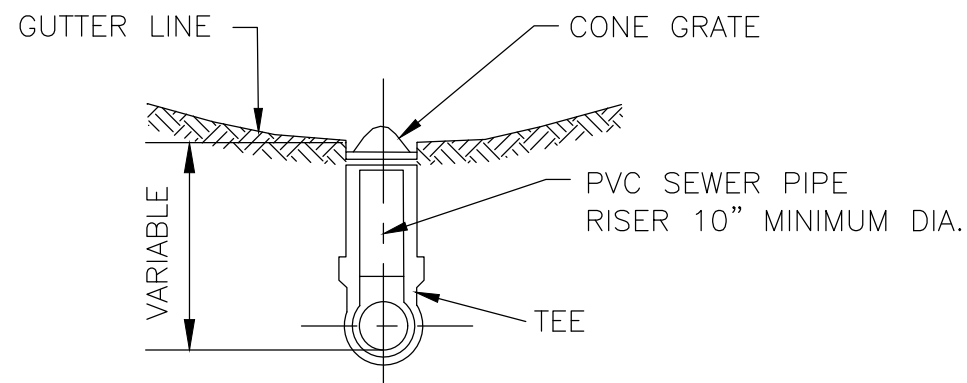
* ALTERNATE MATERIALS MAY BE UTILIZED WITH PRIOR WRITTEN APPROVAL OF THE CITY ENGINEER

PIPE TRENCH CLAY DAM DETAIL

CITY OF AVON CONSTRUCTION STANDARDS AND SPECIFICATIONS		
PIPE TRENCH CLAY DAM DETAIL	ADOPTION ORDINANCE	DATE
STANDARD CONSTRUCTION DRAWING G-10	61-24	5/29/24

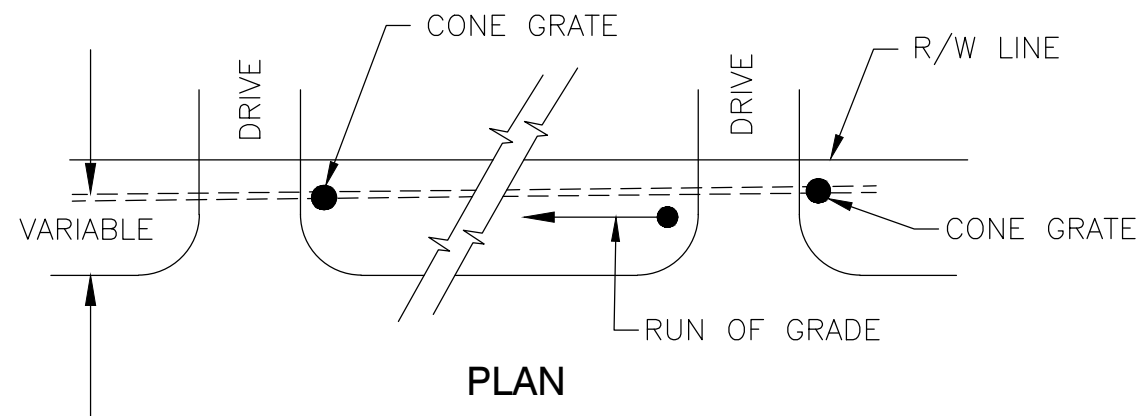


CROSS SECTION



WHERE TILE EXISTS IN ROAD DITCH AN INLET IS TO BE PLACED ON UPSTREAM SIDE OF DRIVE.

BEFORE INSTALLING DRIVE PIPE OR TILE IN ROAD DITCH PERMISSION MUST BE SECURED FROM SUPERINTENDENT OF STREETS.



PLAN

CITY OF AVON CONSTRUCTION STANDARDS AND SPECIFICATIONS		
APPROVED METHOD OF PRIVATE DRIVES & GRADING LAWNS	ADOPTION ORDINANCE	DATE
STANDARD CONSTRUCTION DRAWING G-11	61-24	5/29/24

Qualifications of workmen:
Provide at least one person who shall be present at all times during execution of this portion of the Work and who shall be thoroughly familiar with the type of materials being installed and the best methods for their installation and who shall direct all work performed under this Section.

- Codes, Regulations and Standards:
1. All plants and planting material shall meet or exceed the Specifications of Federal, State and County laws requiring inspection for plant disease and insect control.
 2. Quality and Size:
 - a. General: Quality and size shall conform with the current edition of 'Horticultural Standards' for number one grade nursery stock as adopted by the American Association of Nurserymen.
 - b. Deciduous Trees: Deciduous trees will measure in units of an average caliper at point 6 inches above the ground.
 - c. Evergreen trees will measure in units of average height in feet above the ground.
 - d. Plant stock: Each ball shall be of sufficient size to insure successful fibrous feeding roots necessary to insure successful recovery and development of the plant.
 - e. Topsoil shall conform to ASTM D 5268-92.
 3. Balled and Burlapped Stock: Care should be taken at all times as to not damage the bark or branches. Plants shall be lifted and handled from the bottom of the ball as much as possible in order to prevent damage to the plant.
 4. Plant stock to be delivered B & B shall be moved with a compact natural ball of earth so firmly wrapped in burlap, that upon delivery the soil in the ball is still firm and compact about the small feeding roots.

Temporary Storage and Protection:

1. Protect plants at all times from sun or drying winds.
2. Plants that cannot be planted immediately on delivery shall be kept in the shade, well protected with soil, shredded hardwood mulch, straw or other acceptable material, and shall be kept well watered

Topsoil Backfill:
The topsoil backfill shall be a mixture of 3-parts of onsite material and 1-part compost by volume. Free from admixture of subsoil, heavy clay,

- coarse sand, stones, plants, roots, sticks, and other foreign materials as per ASTM D 5268-92. 95% of topsoil shall pass a 2.0 mil sieve. Organic content shall be 4% to 12% of total dry weight.
1. If the quality or quantity of on-site topsoil stockpiled is insufficient to complete the work, provide imported topsoil. Obtain rights and pay all costs for imported topsoil material.
 2. Proposed topsoil shall be acceptable to Architect and Soils Testing Firm.
 3. Provide a history of the crops grown in and the chemicals applied to imported topsoil.
 4. Submit an analysis of both existing and imported topsoil to determine the necessary soil amendments and recommended rates of application for each type of plant to be grown.

- Trees:
- a. All trees and evergreens shall be sound, healthy, vigorous, first-class, freshly dug, nursery grown in a climate similar to or more severe than Ohio.
 - b. All plant material shall be free of insects, insect eggs, and larvae.
 - c. Plants shall be free of mechanical or cultural injury by rodents, and free of noticeable after-effects of insects (borers).
 - d. Plants shall be true to scientific names. The names used are those of 'Standardized Plant Names'.

- Mulch:
- a. 2-4 inches deep.
 - b. At least as wide as the planting hole and square with curb/sidewalk.
 - c. 3-4 inches mulch free around root collar.
 - d. Size to vary to allow air flow, water infiltration, and greater nutrients.

Wrapping:
Tree-wrap tape not less than four inches (4") wide, designed to prevent bore damage and winter freezing.

Stakes and Guys:
Provide stakes of sound new hardwood, treated softwood, or redwood, free of knot holes and other defects. Provide flat woven polypropylene ties. Install per manufacturer's specifications.

- Tree pits:
- a. Depth of the pits-deep enough as is necessary to accommodate the ball or roots and to permit the required preparation of the bottom of the pit so that when the tree is settled in the pit, it will not be necessary to raise or lower the tree.
 - b. Width of the pits - Twice the diameter of the root ball, or spread of roots.
 - c. Plant tree in topsoil in the center of the pit unless otherwise specified or show on the Drawings. Remove all burlap, ropes, staves, etc., off of the root balls and remove from the pit before it is filled in. Completely remove all burlap or ropes from planting pits. Remove entire wire basket from root ball and pit before it is filled in.
 - b. Thoroughly tamp and water during and after backfilling.

- Water:
- a. Deep soak.
 - b. 5 gallons per inch caliper + 5 gallons.

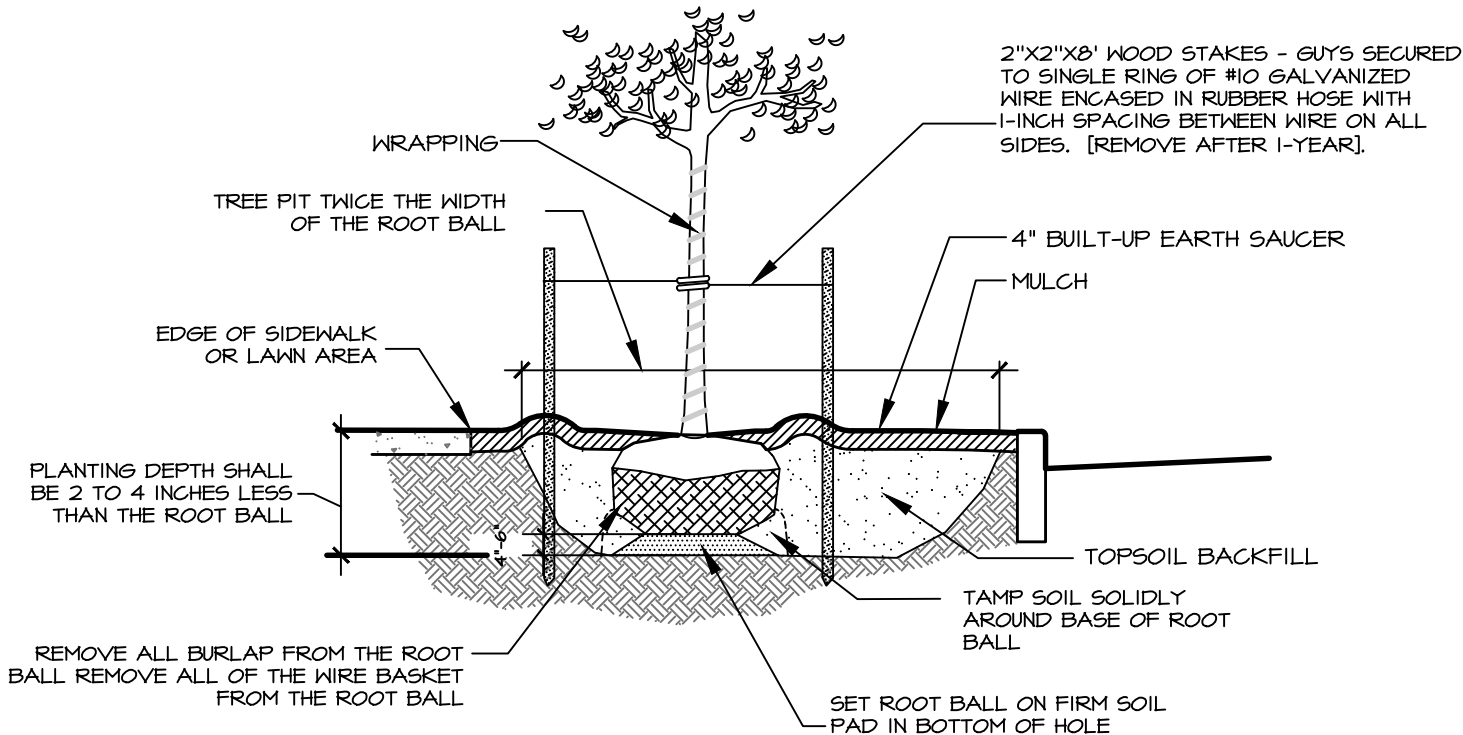
5. All trees are to be wrapped and staked per planting details.
6. Dress all beds with a uniform 3" layer of finely shredded hardwood bark.

Protection:

1. Protect all planting areas and plants from damage. If any plants are injured, treat and replace as required. Execute no work in or over prepared planting areas, or adjacent to planting without proper safeguards and protection.

- Maintenance During Installation:
1. Maintain immediately following the accomplishment of planting operations of any plant unit.
 2. Spray foliage with water, where required, during the evening after sundown or otherwise as directed. Keep all plantings in a healthy, growing condition by watering, weeding, cultivating, pruning, spraying, trimming and by performing any other necessary operations of maintenance.
 3. Maintain trees until final acceptance, but in no case less than 60 days after substantial completion of planting.
 4. Maintain trees plants by pruning, cultivating, watering and weeding as required for healthy growth. Restore planting saucers. Tighten and repair stake and guy supports and reset trees and shrubs to proper grades or vertical position as required. Restore or replace damaged wrappings. Spray as required to keep trees and shrubs free of insects and disease.

- Clean up:
1. Upon completion of the planting, all excess soil, stones and debris which has not previously been cleaned up shall be removed from the site or disposed of as directed by the Architect.
 2. Any soil, peat, or similar material which has been brought onto paved areas by hauling operations or otherwise shall be removed promptly, keeping these areas clean at all times.
 3. Protect landscape work and materials from damage due to landscape operations, contractors and trades and trespassers. Maintain protection during installation and maintenance periods. Treat, repair or replace damaged landscape work as directed.



TREE PLANTING DETAIL
NO SCALE

CITY OF AVON CONSTRUCTION STANDARDS AND SPECIFICATIONS		
TREE PLANTING DETAIL	ADOPTION ORDINANCE	DATE
STANDARD CONSTRUCTION DRAWING	61-24	5/29/24