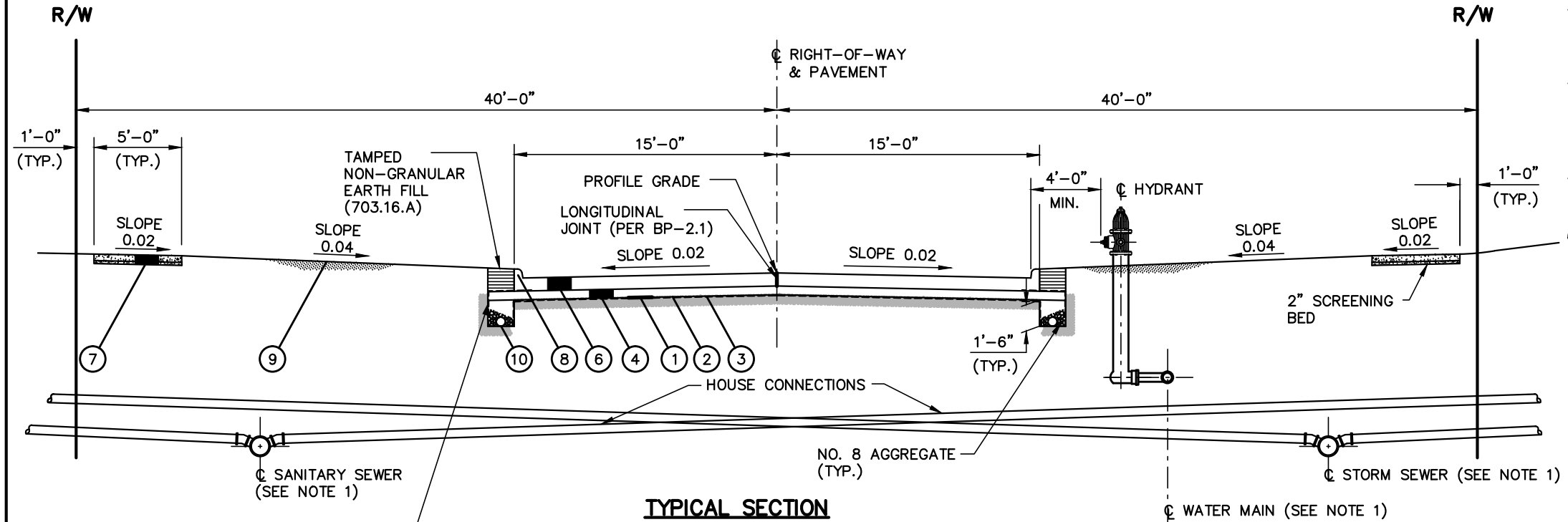


**TYPICAL SECTION
LOCAL RESIDENTIAL**



**TYPICAL SECTION
LOCAL COMMERCIAL & INDUSTRIAL**

NOTES

1. MAIN LINE TRENCHES SHALL BE LOCATED IN THE TREE LAWN AREA, CLEAR FROM BENEATH THE PAVEMENT/UNDERDRAIN TRENCH AND SO THAT MANHOLE CASTINGS ARE KEPT OUT OF THE SIDEWALK. EXACT LOCATIONS AND DEPTHS OF SANITARY SEWERS AND WATER MAINS ARE AS APPROVED BY THE CUYAHOGA COUNTY SANITARY ENGINEER AND THE CITY OF CLEVELAND DIVISION OF WATER (OR OTHER APPLICABLE WATER AUTHORITY) AND AS SHOWN ON THE PLANS. DETAILED MATERIAL AND CONSTRUCTION SPECIFICATIONS FOR ALL STORM AND SANITARY INSTALLATIONS SHALL CONFORM TO "THE UNIFORM STANDARDS FOR SEWERAGE IMPROVEMENTS, DECEMBER, 1998". DETAILED MATERIAL AND CONSTRUCTION SPECIFICATIONS FOR ALL WATERWORK SHALL CONFORM TO THE STANDARD SPECIFICATIONS OF THE CITY OF CLEVELAND DIVISION OF WATER OR OTHER APPLICABLE WATER AUTHORITY. IN ADDITION TO THE ABOVE, THE BEDDING AND BACKFILL FOR STORM SEWERS, SANITARY SEWERS AND WATER MAINS SHALL MINAMALLY CONFORM TO SECTIONS 611.02 (TYPE "B" CONDUIT BENEATH PAVEMENT OR TYPE "C" CONDUIT WHEN NOT UNDER PAVEMENT) AND 611.06 OF THE O.D.O.T. CONSTRUCTION AND MATERIAL SPECIFICATIONS. STRUCTURAL BACKFILL MATERIAL (703.11) FURNISHED FOR BEDDING AND BACKFILL OPERATIONS SHALL BE LIMITED TO CRUSHED CARBONATE STONE. GRANULAR EMBANKMENT MATERIAL (203.02.R) FURNISHED FOR NON-STRUCTURAL BACKFILL OPERATIONS SHALL BE LIMITED TO NATURAL GRANULAR MATERIAL (203.02.H) AND RECYCLED PORTLAND CEMENT CONCRETE (RPCC). IN ADDITION TO THE REQUIREMENTS OF 703.16, THE USE OF RPCC IS SUBJECT TO THE RESTRICTIONS OF 203.03(B) AND 203.03(E).
2. CONCRETE DRIVE APRONS (WITHIN THE RIGHT OF WAY) SHALL BE CONSTRUCTED (BY THE BUILDER) IN ACCORDANCE WITH THE CUYAHOGA COUNTY ENGINEER'S CONSTRUCTION DRAWING BP-4.1C.
3. ALL GRADING WITHIN THE PROPOSED RIGHT OF WAY SHALL BE PERFORMED IN ACCORDANCE WITH O.D.O.T. ITEM 203 ROADWAY EXCAVATION AND EMBANKMENT. USE OF SLAG, IN ANY FORM, IS NOT PERMITTED.
4. THE LAST TEN (10) FEET OF EACH RUN OF UNDERDRAIN SHALL BE OUTLETTED WITH O.D.O.T. "ITEM 611 - 6" CONDUIT, TYPE F FOR UNDERDRAIN OUTLETS." THE INVERT OF THE UNDERDRAIN OUTLET STRUCTURE SHALL BE A MINIMUM OF SIX (6) INCHES BELOW THE "TYPE F" OUTLET CONDUIT FLOW LINE.
5. IT IS REQUIRED TO SEAL (705.04) ALL TRANSVERSE JOINTS IN CAST-IN-PLACE CONCRETE CURB. SECTION 609.04(A) IS HEREBY MODIFIED ACCORDINGLY.
6. NOTE TO DESIGNER: **PLAN SUBGRADES.** THE DEVELOPER'S DESIGN ENGINEER AND GEOTECHNICAL ENGINEER ARE RESPONSIBLE FOR IDENTIFYING THE METHOD(S), LOCATION(S) AND DIMENSIONS, INCLUDING DEPTH(S), OF ANY SUBGRADE STABILIZATION REQUIRED; ALL IN ACCORDANCE WITH ODOT'S CURRENT "GEOTECHNICAL BULLETIN 1 (GB1)" FOR "PLAN SUBGRADES" AND TO THE SATISFACTION OF THE PROJECT ENGINEER. WHERE PERMISSABLE PER THE "GB1" BULLETIN GUIDELINES, LIME (ITEM 205), CEMENT (ITEM 206) OR MECHANICAL (SS 861) STABILIZATION MAY BE USED IN LIEU OF UNDERCUTTING OR TO REDUCE UNDERCUTTING, ALL IN ORDER TO PROVIDE THE REQUIRED COMPACTED STABLE SUBGRADE. WHERE CEMENT STABILIZATION IS USED/DESIGNED IN ACCORDANCE WITH THE "GB1" BULLETIN GUIDELINES, THE DEPTH OF THE SUBBASE (ITEM 304) MAY BE REDUCED TO FOUR (4) INCHES AND THE SUBGRADE GEOTEXTILE FABRIC (ITEM SPECIAL) MAY BE DELETED. THE DEVELOPER'S ENGINEER SHALL APPROPRIATELY MODIFY THE PLAN DETAILS/NOTES TO REFLECT THE ACTUAL PLAN SUBGRADE TREATMENTS/DESIGNS INTENDED.
7. PROVIDE PAVEMENT THICKNESS DESIGN CALCULATIONS TO CERTIFY ACTUAL THICKNESS REQUIRED.
8. ANY DEVIATION FROM THESE MINIMUM STANDARDS MUST BE APPROVED IN WRITING BY THE CUYAHOGA COUNTY ENGINEER AND SHOWN ON THE PLANS.

LEGEND

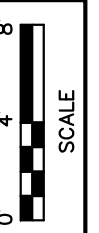
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|---|---|
| ① ITEM 204 - SUBGRADE COMPACTION (SEE NOTE 6) | ⑥ ITEM 452 - 9" (MIN.) NON-REINFORCED CONCRETE PAVEMENT, CLASS QC 1, AS PER PLAN (SEE NOTE 7) |
| ② ITEM 204 - PROOF ROLLING (SEE NOTE 6) | ⑦ ITEM 608 - 4" CONCRETE WALK, AS PER PLAN |
| ③ ITEM SPECIAL - SUBGRADE GEOTEXTILE FABRIC (SEE NOTE 6) | ⑧ ITEM 609 - CURB, TYPE 2-A, AS PER PLAN - OR WHEN APPROVED - CURB, TYPE 3-A, AS PER PLAN (RESIDENTIAL USE ONLY) (SEE NOTE 5) |
| ④ ITEM 304 - 6" AGGREGATE BASE, AS PER PLAN (SEE NOTE 6) | ⑨ ITEM 659 - SEEDING AND MULCHING, AS PER PLAN -OR- ITEM 660 - SODDING, AS PER PLAN |
| ⑤ ITEM 452 - 7" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC 1, AS PER PLAN | ⑩ ITEM 605 - 6" BASE PIPE UNDERDRAINS WITH FABRIC WRAP, AS PER PLAN (SEE NOTE 4) |

SUPPLEMENTAL CONSTRUCTION DRAWINGS			
STATE (O.D.O.T.) STANDARD		COUNTY CONSTRUCTION	
DWG. NO.	DATE	DWG. NO.	DATE
BP-2.1	07-19-13	BP-2.6C	10-31-13
BP-2.2	07-18-08	BP-2.7C	10-10-08
BP-5.1	07-19-13	BP-2.8C	10-10-08
BP-7.1	10-15-10	BP-4.1C	10-31-13
DM-4.3	07-19-13	MB-2C	10-31-13
DM-4.4	07-20-12	MD-1C	05-31-10

CUYAHOGA COUNTY ENGINEER

MINIMUM CONSTRUCTION STANDARDS FOR TOWNSHIP SUBDIVISION STREETS (LOCAL) TYPE 452 PAVEMENT	DATE 08-28-07 10-10-08 08-01-09 07-19-10 06-16-11 11-15-13
	STANDARD CONSTRUCTION DRAWING

DWG. NO. 1 OF 4



TYPICAL SECTIONS