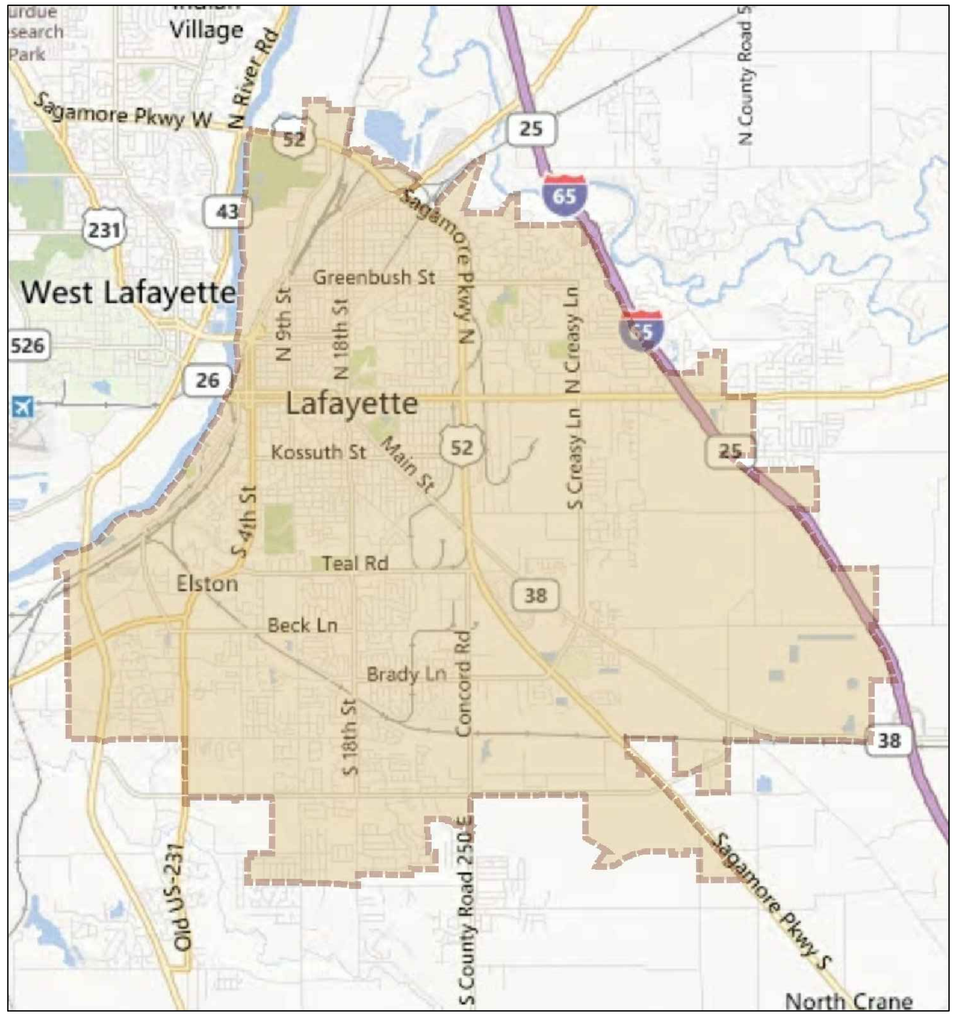
CITY OF

LAFAYETTE, INDIANA

TYPICAL CONSTRUCTION GUIDELINES AND DETAILS



INDEX

JENNIFER M. LESHINEY REGISTERED Nº PE9500449 STATE OF INDIANA PROFESSIONAL ENGINEER

REVISED 09/01/2013

PROJECT NAME	PROJECT SHEET NUMBER
	of

CITY OF LAFAYETTE

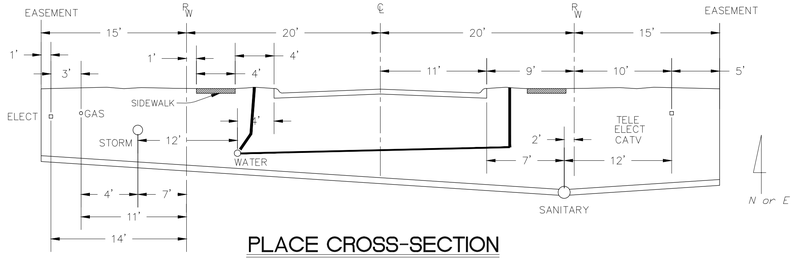
(800) 382-5544 HOLEY MOLEY
(765) 807-1050 CITY ENGINEER
(765) 807-1800 WATER POLLUTION CONTROL-SEWERS
(765) 807-1700 WATER WORKS
(765) 807-1600 FIRE DEPT.
(765) 807-1210 POLICE DEPT.

20 NORTH SIXTH STREET
LAFAYETTE, INDIANA 47901

TYPICAL CONSTRUCTION GUIDELINES AND DETAILS

DATE JUNE 2012

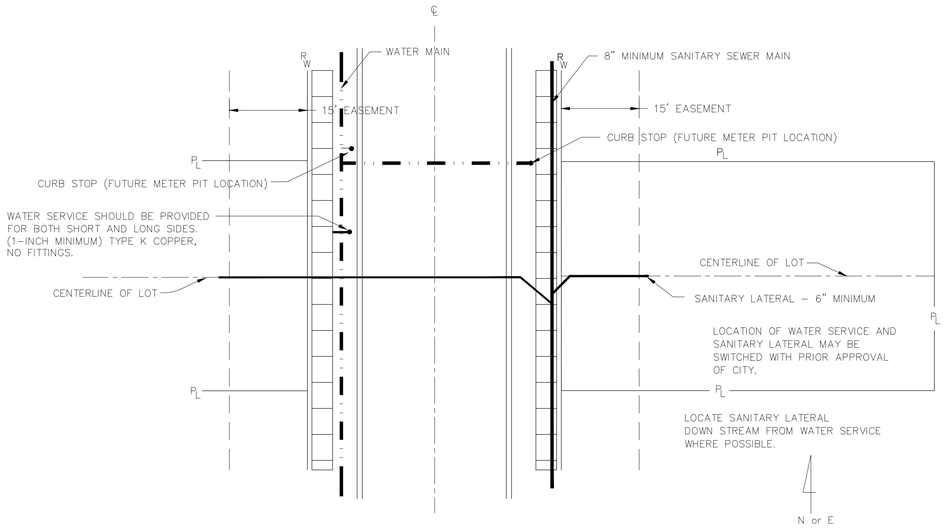
SHEET 1 OF 12



PLACE CROSS-SECTION

NOT TO SCALE

X-SECS.DWG 7/2/98



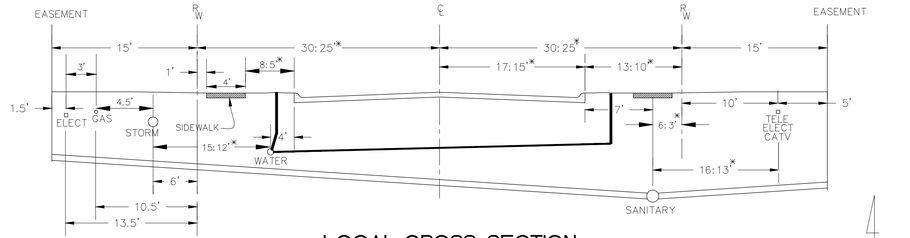
USE NORTH AND EAST FOR DIRECTIONAL CONTROL.

GUIDELINES FOR UTILITY LOCATIONS WITHIN THE ROAD RIGHT-OF-WAY AND/OR UTILITY EASEMENTS.

GENERAL NOTES

NOTE-GEN.DWG 7/2/98

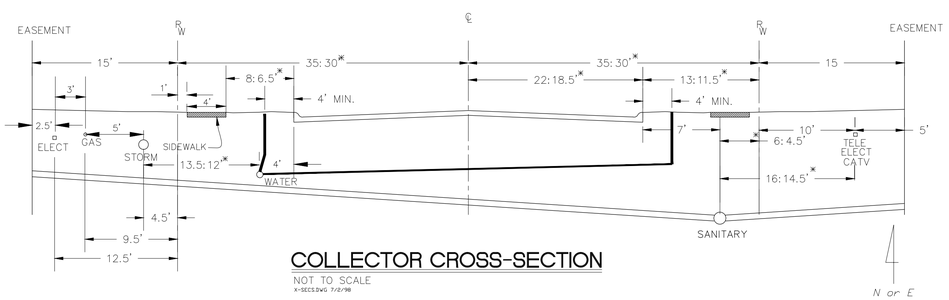
1. CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF ALL UNDERGROUND UTILITIES AT LEAST 24 HOURS PRIOR TO ANY CONSTRUCTION OR EXCAVATION. DURING CONSTRUCTION, ALL UTILITIES SHALL BE ADEQUATELY SUPPORTED TO ELIMINATE OR MINIMIZE DAMAGE.
2. ALL PERMITS AND EASEMENTS WILL BE OBTAINED BY THE OWNER WITH ANY REQUIRED INSURANCE OR BONDS TO BE PROVIDED BY THE CONTRACTOR PRIOR TO THE START OF WORK ON THE PROJECT.
3. ALL VERTICAL CONTROL SHALL BE ON NORTH AMERICAN VERTICAL DATUM (NAVD 1988). HORIZONTAL CONTROL SHALL BE ON NAD STATE PLANE COORDINATES.
4. WHEREVER PROPRIETARY EQUIPMENT IS SPECIFIED, "OR APPROVED EQUAL" IS IMPLIED ALL PROPOSALS FOR SUBSTITUTION SHALL BE SUBMITTED TO THE CITY IN WRITING FOR THEIR APPROVAL.
5. ALL AREAS DISTURBED BY THE CONSTRUCTION PROCESS SHALL BE FERTILIZED AND SEEDED. ADEQUATE MULCHING SHALL BE PLACED AFTER SEEDING AND FERTILIZING. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO SEE THAT ADEQUATE GROWTH IS ESTABLISHED. SODDING WILL BE REQUIRED AS SHOWN ON THE PLANS.
6. TRENCHES UNDER PAVED AREAS (EXCLUDING SIDEWALKS) SHALL BE BACKFILLED WITH GRANULAR MATERIAL PER INDIANA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS", LATEST EDITION, SECTION 211, AND COMPACTED IN LIFTS. GRANULAR MATERIAL TO EXTEND FIVE FEET BEYOND THE LIMITS OF THE PAVED AREA WITH A 1:1 SLOPE TO THE BOTTOM OF THE TRENCH. FLOWABLE MORTAR PER SECTION 213 OF INDIANA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS", LATEST EDITION, MAY BE USED IN LIEU OF GRANULAR MATERIAL. WITH PRIOR APPROVAL OF THE CITY ENGINEER'S OFFICE.
7. INSTALLATION OF OR PROVISIONS FOR THE INSTALLATION OF ALL UNDERGROUND UTILITIES INCLUDING SERVICE LATERALS TO BE PLACED UNDER THE PAVEMENTS SHALL BE ESTABLISHED PRIOR TO THE CONSTRUCTION OF THE PAVEMENTS
8. CONTRACTOR SHALL CONTACT THE CITY IF ANY DAMAGE TO CITY UTILITIES OCCURS. DAMAGE TO CITY'S WATER MAIN OR CITY'S SEWERS BY CONTRACTORS WILL BE BE REPAIRED BY CITY'S WATER WORKS DEPT. OR SEWER DEPT. WITH ALL COSTS OF REPAIR TO BE PAID BY THE CONTRACTOR UNLESS OTHERWISE DIRECTED BY THE CITY. OTHER DAMAGED UTILITIES SHALL BE REPAIRED IN ACCORDANCE WITH THE AFFECTED UTILITY'S REPAIR POLICY.
9. 18" VERTICAL SEPARATION AND 10'– 0" HORIZONTAL SEPARATION IS TO BE MAINTAINED BETWEEN WATER MAINS, HYDRANTS AND SEWERS (STORM AND SANITARY).
10. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING A SAFE CONSTRUCTION SITE AND FOR KEEPING SURROUNDING STREETS NEAT AND CLEAN. THE CONTRACTOR WILL PROVIDE ALL TRAFFIC CONTROL REQUIRED ON PUBLIC WAYS NEAR THE PROJECT.
11. THE CONSTRUCTION WORK SHALL CONFORM TO THE REQUIREMENTS OF ALL AGENCIES HAVING JURISDICTION OVER THE PROJECT.
12. THE CONTRACTOR WILL NOTIFY THE APPROPRIATE GOVERNMENTAL AGENCIES AT LEAST 48 HOURS PRIOR TO STARTING OR RESUMING WORK ON A PROJECT.
13. THE CONTRACTOR WILL PROVIDE SAFE ACCESS TO THE CONSTRUCTION SITE FOR ALL INSPECTORS AND WILL PROVIDE MATERIAL SAMPLES FOR TESTING.
14. INFORMATION REQUIRED FOR PREPARING "AS-BUILT" DRAWINGS MUST BE RECORDED PRIOR TO THE BACKFILLING OF THE UNDERGROUND FACILITY.
15. TOP OF MANHOLE FRAMES TO BE SET AT PROPOSED YARD OR SIDEWALK GRADE WHEN LOCATED IN FRONT YARD AREA OF LOT OR RIGHT-OF-WAY.
16. ALL SIGN, MARKINGS AND OTHER TRAFFIC CONTROL DEVICES SHALL COMPLY WITH INDOT STANDARDS AND IMUTCD.
17. UTILITY PLACEMENT FOR OTHER THAN SINGLE FAMILY RESIDENCES, CONTACT CITY ENGINEERS OFFICE FOR REQUIREMENTS.
18. SIDEWALK WIDTH SHALL BE IN ACCORDANCE WITH THE CURRENT SUBDIVISION ORDINANCE
19. SIDEWALK PLACEMENT SHALL BE REFERENCED FROM THE RIGHT OF WAY



LOCAL CROSS-SECTION

NOT TO SCALE

X-SECS.DWG 7/2/98



COLLECTOR CROSS-SECTION

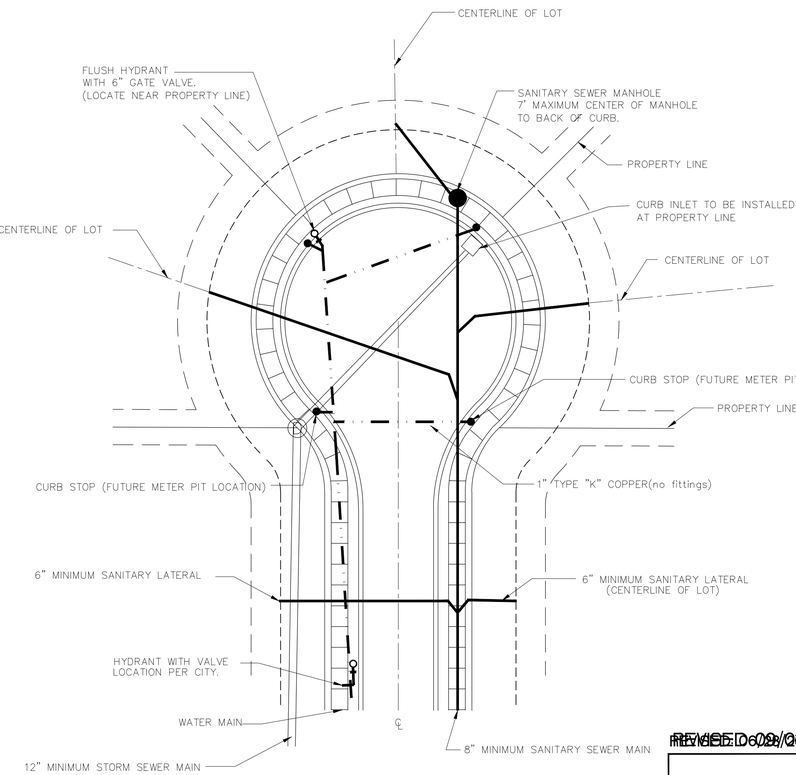
NOT TO SCALE

X-SECS.DWG 7/2/98

USE NORTH AND EAST FOR DIRECTIONAL CONTROL.

GUIDELINES FOR UTILITY LOCATIONS WITHIN THE ROAD RIGHT-OF-WAY AND/OR UTILITY EASEMENTS.

* = NONRESIDENTIAL REQUIREMENT; RESIDENTIAL REQUIREMENT



USE NORTH AND EAST FOR DIRECTIONAL CONTROL.

GUIDELINES FOR UTILITY LOCATIONS WITHIN THE ROAD RIGHT-OF-WAY AND/OR UTILITY EASEMENTS.

UTILITY LOCATIONS

NOT TO SCALE

X-SECS.DWG 7/2/98

JENNIFER M LESHNEK
REGISTERED
№ PE9500449
STATE OF
INDIANA
PROFESSIONAL ENGINEER

REVISED: 02/01/2013

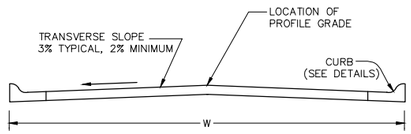
PROJECT NAME	PROJECT SHEET NUMBER
	of

CITY OF LAFAYETTE

(800) 382-5544	HOLEY MOLEY	20 NORTH SIXTH STREET LAFAYETTE, INDIANA 47901
(765) 807-1050	CITY ENGINEER	
(765) 807-1800	WATER POLLUTION CONTROL-SEWERS	
(765) 807-1700	WATER WORKS	GENERAL NOTES AND GUIDELINES FOR UTILITY LOCATIONS
(765) 807-1600	FIRE DEPT.	
(765) 807-1210	POLICE DEPT.	

DATE
MAY 2005

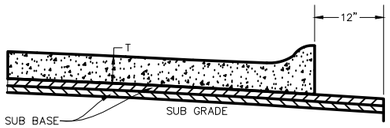
SHEET
2
OF
12



STANDARD STREET CROSS-SECTION

NOT TO SCALE

STREET-X.DWG 7/2/98



CONCRETE RIGID PAVEMENT SECTION

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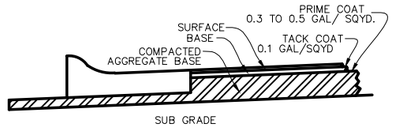


ASPHALT PAVEMENT SECTION

NOT TO SCALE

BASE TO BE CONSTRUCTED PRIOR
TO CONSTRUCTION OF CURB AND GUTTER

CLASS OF STREET (1)	CURB (2)	SUB GRADE THICKNESS	CONCRETE PAVEMENT (4)		ASPHALT PAVEMENT (3)		
			T (PVT.THICKNESS)	TRANSVERSE JOINT SPACING	9.5 mm (HMA SURFACE)	25 mm (BASE)	#53 (AGG. BASE)
PRIMARY ARTERIAL	TYPE III	TO BE DETERMINED BY CITY	8"	--	(TO BE DETERMINED BY THE CITY)		
SECONDARY ARTERIAL	TYPE III	TO BE DETERMINED BY CITY	8"	--	(TO BE DETERMINED BY THE CITY)		
COLLECTOR	TYPE I (RESIDENTIAL) TYPE III (NONRESIDENTIAL)	6"	6"	14'	1.5"	4.5"	12" COMPACTED (2 LIFTS)
LOCAL AND PLACE	TYPE I (RESIDENTIAL) TYPE II (NONRESIDENTIAL)	6"	6"	14'	1.5"	4.5"	12" COMPACTED (2 LIFTS)

ITEM	MATERIAL TYPE	INDOT SPECIFICATIONS SECTION
SUB GRADE	EARTH	207
SUB BASE		302
CURB	COMBINED CURB AND GUTTER	605.04-a,b,c,f,g,h,i
BASE (AGGREGATE)	COMPACTED AGGREGATE	301
BASE (ASPHALT)	ASPHALTIC CONCRETE	304
INTERMEDIATE	ASPHALTIC CONCRETE	401,402
SURFACE	ASPHALTIC CONCRETE	401,402
PRIME COAT	MC-70, AE-P	405
TACK COAT	AE-T	406
PAVEMENT (CONCRETE)	PORTLAND CEMENT CONCRETE	305,501
SIDEWALKS, RAMPS, ETC.	PORTLAND CEMENT CONCRETE	604
JOINT SEALANT	SEALANT	906

NOTES:

(1) AS DEFINED BY THE SUBDIVISION ORDINANCE OF TIPPECANOE COUNTY.

(2) SEE SHEET 11 FOR CURB INLET DETAILS. PERIMETER DRAIN SHALL EXTEND 50 FT. EACH DIRECTION FROM THE CURB INLET.

(3) 8" OF LIME TREATED SUBBASE CAN BE SUBSTITUTED FOR 6" OF #53 AGGREGATE BASE UNDER ASPHALT. LIME TREATMENT CAN BE USED IN AREAS OF NEW CONSTRUCTION ONLY AND WITH PRIOR WRITTEN APPROVAL OF THE CITY ENGINEER'S OFFICE.

(4) SUB BASE SHALL BE 6" OF #53'S.

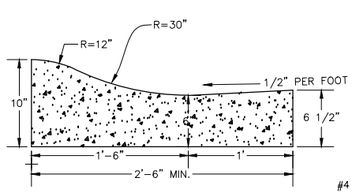
(5) SUB BASE FOR CONCRETE PAVEMENT WHERE UNDERDRAINS ARE REQUIRED SHALL BE 3" OF #8'S OR #43'S FOR DRAINAGE AND 4" OF #53'S FOR SEPARATION.

(6) ALTERNATE PAVEMENT DESIGNS MAY BE SUBMITTED TO CITY ENGINEER'S OFFICE. DESIGNS MUST BE APPROVED BY THE CITY ENGINEER.

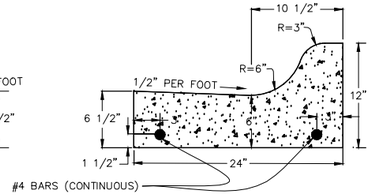
TYPICAL PAVEMENT SECTIONS AND NOTES

NOT TO SCALE

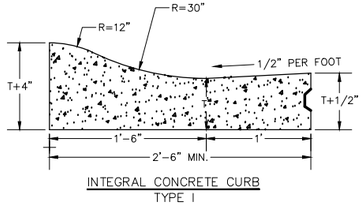
PVMT-SEC.DWG 7/2/98



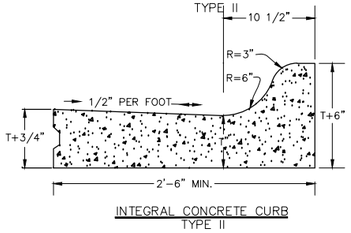
COMBINED CONCRETE CURB
AND GUTTER
TYPE I



COMBINED CONCRETE CURB
AND GUTTER
TYPE II



INTEGRAL CONCRETE CURB
TYPE I



INTEGRAL CONCRETE CURB
TYPE II

CURB SECTIONS

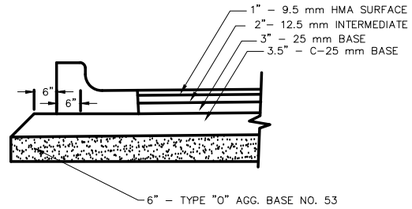
NOT TO SCALE

CURB.DWG 7/2/98

PAVEMENT CONSTRUCTION NOTES

NOTE-STR.DWG 7/2/98

1. INSTALLATION OF OR PROVISIONS FOR THE INSTALLATION OF ALL UNDERGROUND UTILITIES, INCLUDING SERVICE LATERALS, TO BE PLACED UNDER THE PAVEMENTS SHALL BE ESTABLISHED PRIOR TO THE CONSTRUCTION OF THE PAVEMENTS.
2. ALL PAVEMENT, CURBS, SIDEWALKS, RAMPS, ETC. SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE SPECIFICATIONS AND IN CLOSE CONFORMANCE WITH THE LINES, GRADES, THICKNESSES AND TYPICAL CROSS SECTIONS SHOWN ON THE PLANS. MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH DESIGNATED SECTIONS OF THE INDIANA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS", LATEST EDITION.
3. SUBBASE AND SUB GRADE FILL MATERIAL SHALL BE COMPACTED TO A MINIMUM 95% OF THE MAXIMUM DRY DENSITY IN ACCORDANCE WITH ASTM D698.
4. ALL PORTLAND CEMENT CONCRETE PAVEMENT STREETS SHALL HAVE JOINT MAINTENANCE CONDUCTED BEFORE THE CITY ACCEPTS OWNERSHIP OF STREET (I.E. CRACK SEAL OR OTHER APPROVED MEASURE) WITHIN THE THREE YEAR MAINTENANCE PERIOD.
5. WHEREVER RIGID PAVEMENT IS TO BE USED THE CONTRACTOR SHALL SUBMIT A DETAILED PAVING PLAN TO THE CITY ENGINEER. THE PAVING PLAN SHALL SHOW THE LOCATION AND TYPE OF JOINTING TO BE USED IN THE CONSTRUCTION. THE LOCATION AND TYPE OF JOINTING SHALL BE IN ACCORDANCE WITH THE CITY STANDARDS AND GUIDELINES.
6. WHENEVER SUB GRADE STABILIZATION IS TO BE USED THE CONTRACTOR SHALL SUBMIT A WRITTEN PLAN DETAILING THE APPLICATION METHOD. THE PLAN MUST COMPLY WITH THE STATE OF INDIANA ENVIRONMENTAL REGULATIONS AND STANDARDS AND BE APPROVED BY THE CITY ENGINEER'S OFFICE.
7. RECYCLED CONCRETE MAY BE USED AS # 53 AGG. BASE ON A CASE BY CASE BASIS UPON PRIOR WRITTEN APPROVAL OF THE CITY.
8. WHEREVER PROPRIETARY EQUIPMENT IS SPECIFIED, "OR APPROVED EQUAL" IS IMPLIED. ALL PROPOSALS FOR SUBSTITUTION SHALL BE SUBMITTED TO THE CITY IN WRITING FOR THEIR APPROVAL.

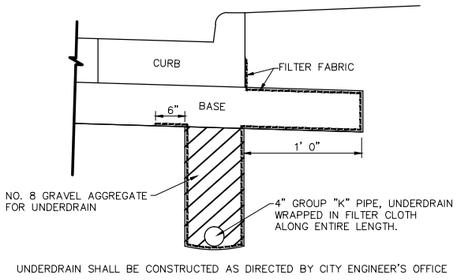


(INTERSECTION OF LOCAL, PLACE OR COLLECTOR WITH ARTERIAL)

ARTERIAL APPROACH PAVEMENT SECTION

NOT TO SCALE

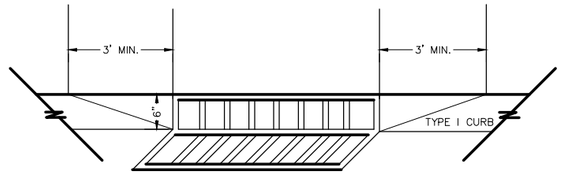
CURBDET.DWG 7/2/98



UNDERDRAIN SHALL BE CONSTRUCTED AS DIRECTED BY CITY ENGINEER'S OFFICE

UNDERDRAIN DETAIL

NOT TO SCALE



CURB TRANSITION DETAIL

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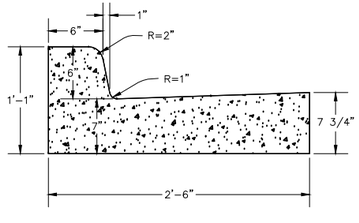
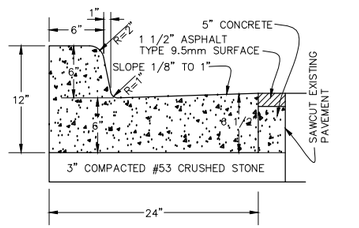
CURBTRAN.DWG 7/2/98



COMBINED CONCRETE CURB AND GUTTER

NOT TO SCALE
REV. 2/18/2005

TYPE III



COMBINED CONC. CURB AND GUTTER

NOT TO SCALE
REV. 2/18/2005

FOR RECONSTRUCTION IN
EXISTING NEIGHBORHOODS

QUALITY CONTROL REQUIREMENTS

1. ALL TESTING SHALL BE IN ACCORDANCE WITH THE LATEST INDOT STANDARD SPECIFICATIONS. ALL TESTS WHERE PRACTICABLE SHALL BE WITNESSED BY THE CITY. CONTRACTOR SHALL COORDINATE TESTING SCHEDULE WITH THE CITY ENGINEER'S OFFICE. ALL TEST RESULTS SHALL BE SUBMITTED TO THE CITY ENGINEER'S OFFICE WITHIN 48 HOURS OF THE COMPLETION OF EACH TEST AND PRIOR TO PLACING ANY MATERIAL ON THE SUBBASE/SUBGRADE. THE FREQUENCY OF TESTING WHERE SHOWN IS A MINIMUM. ADDITIONAL TESTING MAY BE REQUIRED AT THE DIRECTION OF THE PUBLIC WORKS INSPECTOR.
2. THE DEVELOPER/CONTRACTOR SHALL RETAIN AN INDEPENDENT TESTING FIRM (UNLESS OTHERWISE NOTED) TO PERFORM THE FOLLOWING TESTING:

A. SUBGRADE:

1. COMPACTION (FILL SECTIONS): 1 TEST PER LIFT PER 500 LF OF SINGLE LANE WIDTH.
2. ADEQUACY OF SUBGRADES SHALL BE DETERMINED SOLELY BY THE PUBLIC WORKS INSPECTOR. A PROOFROLL SHALL BE PERFORMED ON ALL STREET SUB GRADE PRIOR TO PLACING STONE AND INSTALLING CURB. SUBGRADE SHALL MEET INDOT SPECIFICATION SECTION 207, EXCEPT THAT ONLY THE TOP 6" OF SUBGRADE SHALL BE TESTED FOR 100% STANDARD COMPACTION. PROOFROLLING THAT COMPLIES WITH INDOT SPECIFICATION 203.26 IS ALSO REQUIRED, EXCEPT THAT PROOFROLLING MAY ALSO BE ACCOMPLISHED USING A FULLY LOADED TANDEM OR TRI-AXLE DUMP TRUCK IN LIEU OF THE SPECIFIED RUBBER TIRE ROLLER. ROLLER MARKS LESS THAN 1/2" ARE ACCEPTABLE, AS ARE DEFLECTIONS LESS THAN 1/2" OVER THE LENGTH OF THE ROLLER OR TRUCK. IF THE SUBGRADE DOES NOT PASS THESE SPECIFICATIONS, THEN SUBGRADE TREATMENTS, INCLUDING CHEMICAL MODIFICATION PERFORMED ACCORDING TO INDOT SPECIFICATIONS 207 AND 215 MAY BE DONE IN LIEU OF THE ABOVE DENSITY AND PROOFROLL SPECIFICATIONS.

TANDEM DUMP TRUCK - GROSS WEIGHT 48,000 #
TRI-AXLE DUMP TRUCK - GROSS WEIGHT 68,000 #

B. AGGREGATE SUBBASE:

1. GRADUATION - 1 TEST PER 1000 TONS OR 1 PER WEEK
2. COMPACTION - 1 TEST PER 500 LF OF SINGLE LANE WIDTH

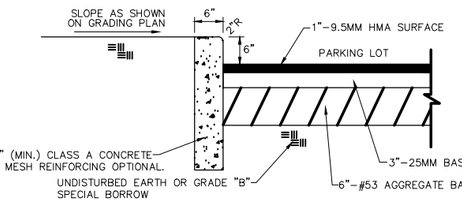
C. BITUMINOUS MATERIAL (BASE, INTERMEDIATE AND SURFACE):

1. ASPHALT EXTRACTION - 1 TEST PER EACH TYPE OF MATERIAL USED PER JOB TEST TO INCLUDE GRADATION, ASPHALT CONTENT, CRUSHED PARTICLE DETERMINATION AND DELETERIOUS DETERMINATION. TEST SHALL BE CERTIFIED PER INDOT CERTIFICATION REQUIREMENTS.
2. DENSITY- THE TARGET DENSITY SHALL BE DETERMINED FROM A TEST STRIP CONSTRUCTED PER INDOT SPECIFICATIONS. THE TARGET DENSITY SHALL NOT BE LESS THAN 96% OF THE UNIT WEIGHT AT THE OPTIMUM BINDER CONTENT NDES AS DETERMINED BY THE MIX DESIGN. THE DENSITY OF EACH SUBLOT WILL BE THE AVERAGE OF FIVE TESTS. A SUBLOT SHALL BE 1000 LF OF SINGLE LANE WIDTH. BREAKDOWN ROLLER SHALL BE MINIMUM 10 TON OR APPROVED VIBRATORY.

D. CONCRETE FOR CURBING AND DRIVEWAYS:

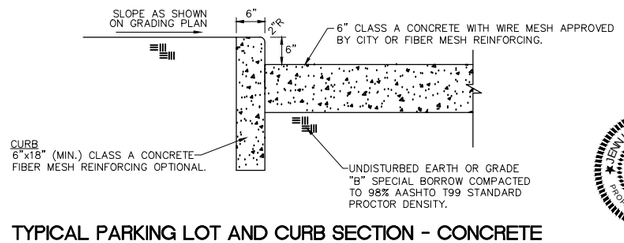
1. AIR AND SLUMP - 1 TEST PER DAY FOR POURS OVER 20 CY OR MINIMUM 1 PER WEEK.
2. COMPRESSIVE STRENGTH TESTS - AN ADEQUATE NUMBER OF CONCRETE TEST CYLINDERS SHOULD BE TAKEN TO ENSURE THAT PSI REQUIREMENTS OF THE CONCRETE SECTION ARE MET. A MINIMUM OF ONE SET OF TEST CYLINDERS PER WEEK SHALL PASS THESE REQUIREMENTS.
3. CONCRETE STRENGTH SHALL BE A MINIMUM 4000 PSI BEFORE OPEN TO TRAFFIC.

E. CONCRETE FOR PAVEMENT - FREQUENCY OF TESTS SHALL BE IN ACCORDANCE WITH THE INDOT FREQUENCY TESTING MANUAL AS SET OUT IN THE SECTION TITLED "CONCRETE PAVEMENT AND STRUCTURE MATERIAL".



TYPICAL PARKING LOT AND CURB SECTION - ASPHALT

NOT TO SCALE



TYPICAL PARKING LOT AND CURB SECTION - CONCRETE

NOT TO SCALE

JENNIFER M LESHER
REGISTERED
№ PE9500449
STATE OF
INDIANA
PROFESSIONAL ENGINEER

REVISED 09/01/2013

PROJECT NAME	PROJECT SHEET NUMBER
	of

CITY OF LAFAYETTE

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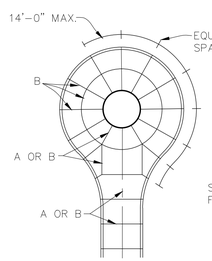
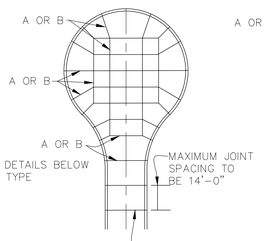
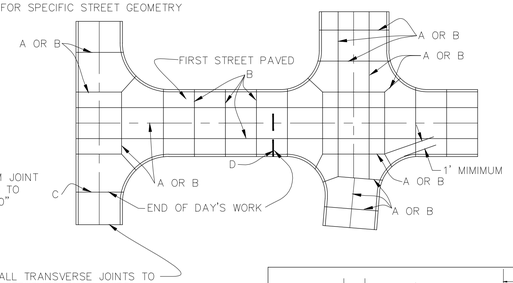


CUL-DE-SAC
OPEN CENTER

SEE PAVEMENT DETAIL SHEETS FOR SPECIFIC STREET GEOMETRY

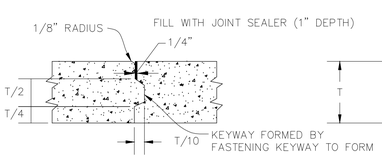


CUL-DE-SAC
FULLY PAVED

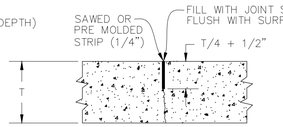


CONCRETE JOINT LAYOUT

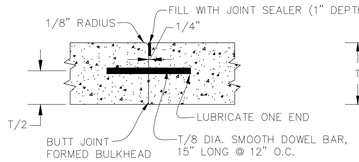
NOT TO SCALE CON-JNT.DWG 7/2/98

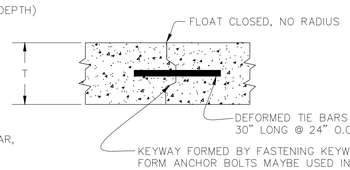


TYPE A
LONGITUDINAL CONSTRUCTION JOINT



TYPE B
SAWED OR PRE MOLDED STRIP, LONGITUDINAL OR TRANSVERSE CONTRACTION JOINT





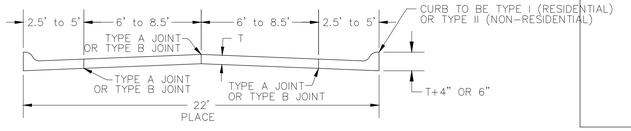
TYPE C
TRANSVERSE CONSTRUCTION JOINT

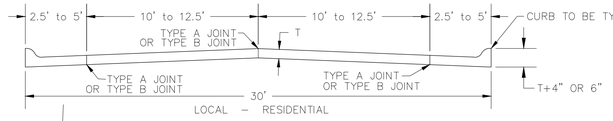
TYPE D
TIED TRANSVERSE CONSTRUCTION JOINT

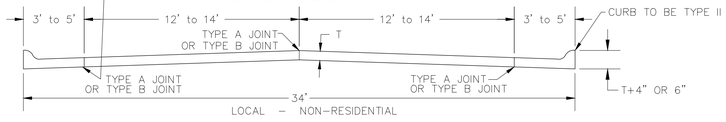
NOTE:
JOINT SEALING COMPOUND TO BE SEALTIGHT HI-SPEC (W.R. MEADOWS, INC.) HOT-APPLIED, SINGLE COMPONENT, POLYMERIC JOINT SEALING COMPOUND (ASTM D 3405), OR APPROVED EQUAL.

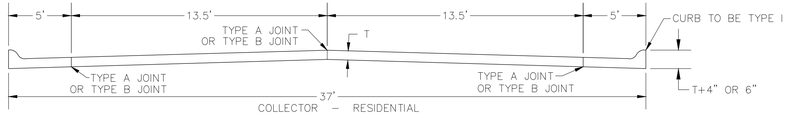
NEW CONSTRUCTION - CONCRETE JOINT DETAILS

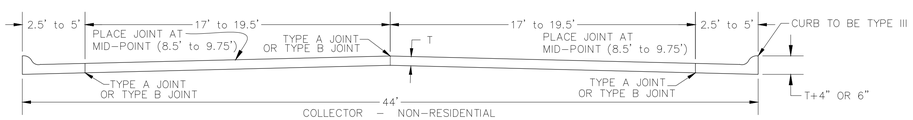
NOT TO SCALE JOINT.DWG 7/2/98





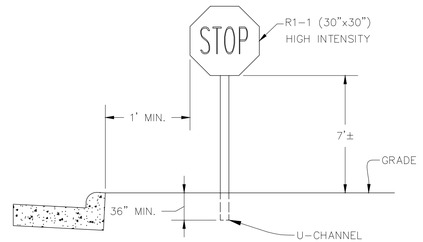




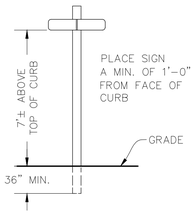


RIGID PAVEMENT STREET CROSS SECTIONS

NOT TO SCALE RIGPVT-X.DWG 7/2/98



STOP SIGN

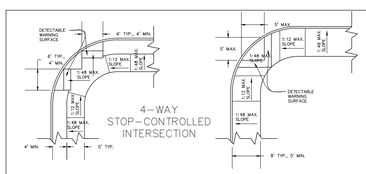


STREET NAME SIGNS TO BE LOCATED AT ALL STREETS. (SEE NOTES)

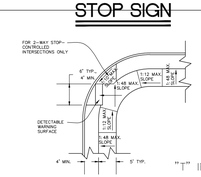
STREET NAME SIGN

TRAFFIC CONTROL AND SIGN NOTES

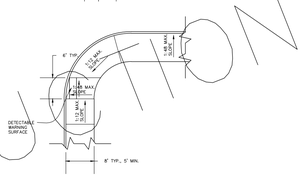
1. THE CONTRACTOR/DEVELOPER SHALL PROVIDE AND INSTALL ALL STREET NAME AND ROAD SIGNS PER CURRENT INDOT STANDARDS AND CITY OF LAFAYETTE GUIDELINES AND DETAILS. ALL TRAFFIC CONTROL DEVICES SHALL COMPLY WITH THE CURRENT IMUTCD.
2. MATERIALS SHALL BE FREE OF BURRS, PITS AND BLEMISHES AND SHALL PRESENT A SMOOTH CLEAN SURFACE.
3. SIGN BLANKS SHALL MEET INDOT SPECIFICATIONS UNLESS OTHERWISE SPECIFIED.
4. ALL STREET SIGNS SHALL HAVE GREEN BACKGROUND WITH WHITE LETTERS/NUMBERS ON EXTRUDED ALUMINUM BLADES.
5. THE STREET NAME LETTERS TO BE ENGINEER GRADE: 9" BLADES WITH 6" LETTERS/NUMBERS ON ALL STREETS.
6. STOP SIGNS SHALL BE 30" HIGH INTENSITY.
7. SIGN BOLTS TO BE PER INDOT STANDARD SPECIFICATIONS. BOLTS ARE TO BE THEFT PROOF.
8. SPEED LIMIT SIGNS SHALL BE 24" X 30" HIGH INTENSITY OR ENGINEER GRADE.
9. SIGN POST SHALL BE DRIVEN INTO THE GROUND. NO EXCAVATION SHALL BE DONE TO PLACE SIGNS.



4-WAY STOP-CONTROLLED INTERSECTION



"T" INTERSECTION

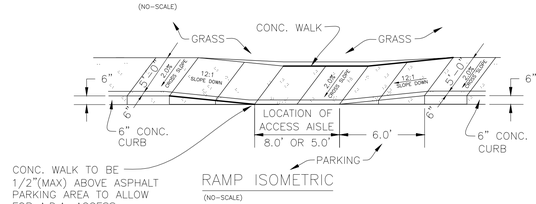


UNDER CONSTRUCTION

GENERAL RAMP CONFIGURATIONS

(NO-SCALE)

1. ALL RAMPS SHALL CONFORM TO THE PROPOSED ACCESSIBILITY GUIDELINES FOR PEDESTRIAN FACILITIES IN THE PUBLIC RIGHT-OF-WAY.
2. DETECTABLE WARNING SURFACES TO BE EITHER CAST IRON OR FIBERGLASS.
3. CURB AT LANDING OF RAMP SHALL NOT HAVE A VISIBLE LIP. IT SHALL SLANT SO AT TO PROMOTE POSITIVE DRAINAGE.

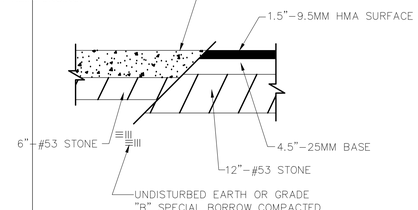


RAMP ISOMETRIC
(NO-SCALE)

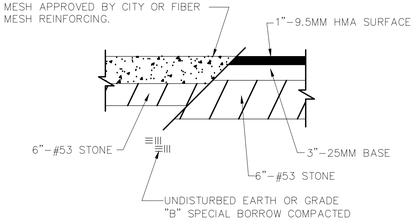
CONSTRUCTION AND FINISH TO BE PER CURRENT ADA REQUIREMENTS.

STANDARD HANDICAP RAMP DETAILS

NOT TO SCALE HANDICAP.DWG 7/2/98



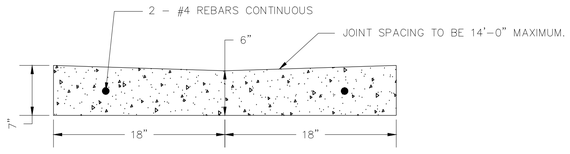
COMMERCIAL
CONCRETE OR ASPHALT



RESIDENTIAL
CONCRETE OR ASPHALT

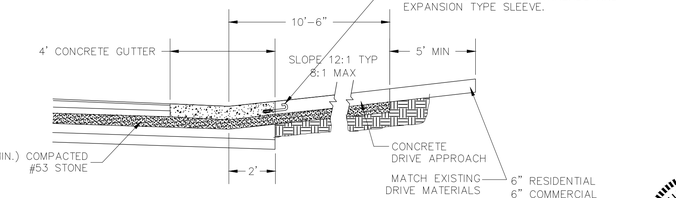
MINIMUM REQUIRED APPROACH SECTION FOR PRIVATE DRIVES

NOT TO SCALE WITHIN RIGHT OF WAY



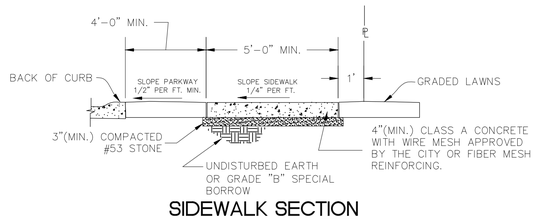
CONCRETE GUTTER - STREET

NOT TO SCALE GUTTER.DWG 7/2/98



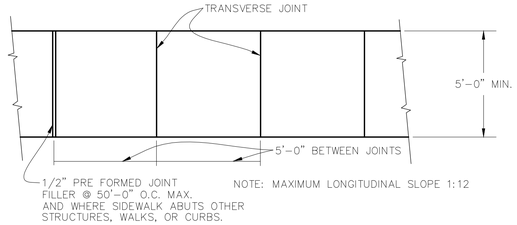
TYPICAL DRIVEWAY SECTION DETAIL

(TYPE II OR TYPE III CURBS)
NOT TO SCALE



SIDEWALK SECTION

NOT TO SCALE



SIDEWALK PLAN

NOT TO SCALE SIDEWALK.DWG 7/2/98

JENNIFER M LESNEY
REGISTERED
Nº PE9500449
STATE OF
INDIANA
PROFESSIONAL ENGINEER

REVISED 09/01/2013

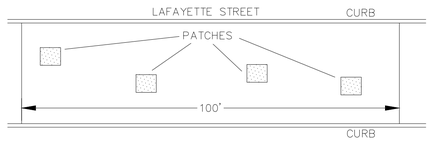
PROJECT NAME	PROJECT SHEET NUMBER
	of

CITY OF LAFAYETTE

(800) 382-5544	HOLEY MOLEY	20 NORTH SIXTH STREET LAFAYETTE, INDIANA 47901
(765) 807-1050	CITY ENGINEER	
(765) 807-1800	WATER POLLUTION CONTROL-SEWERS	
(765) 807-1700	WATER WORKS	CONCRETE PAVEMENT, SIDEWALK, DRIVEWAY
(765) 807-1600	FIRE DEPT.	TYPICAL SECTIONS AND NOTES
(765) 807-1210	POLICE DEPT.	

DATE JUNE 2005

SHEET 4 OF 12



MULTIPLE CUTS SHALL BE DEFINED AS CITY STREET OR ALLEY, ASPHALT OR CONCRETE, THAT HAVE THE FOLLOWING CONDITIONS:

1. FOUR (4) OR MORE PATCHES PER 100 LINEAL FEET OF ROADWAY WITHIN A ONE (1) YEAR PERIOD OF TIME, AND

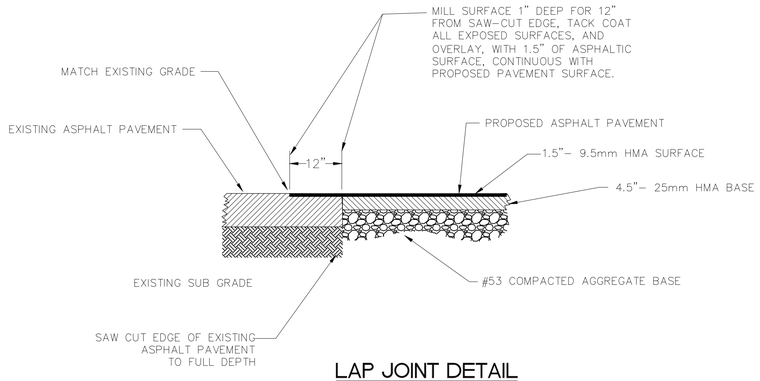
2. AREA CUT IS GREATER THAN 64 S.F. IN 100 LINEAL FEET OF ROADWAY WITHIN A ONE (1) YEAR PERIOD OF TIME.

MULTIPLE CUTS TO BE RESTORED AS FOLLOWS:

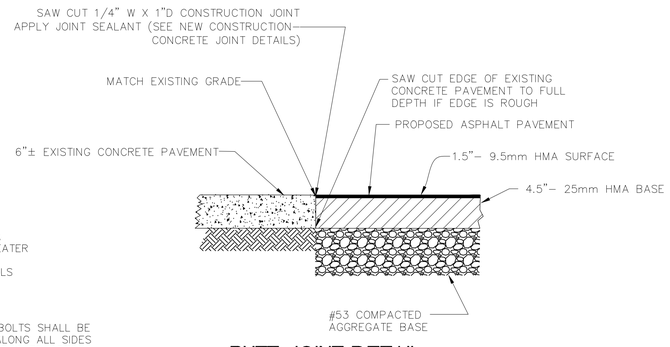
1. NEW PAVEMENT AREAS SHALL NOT HAVE GAPS OF LESS THAN 100 FEET. MINIMUM LENGTH OF NEW PAVEMENT SHALL BE 50 FEET.

2. THE CITY ENGINEER SHALL HAVE THE AUTHORITY TO NEGOTIATE A PAYMENT FROM THE UTILITY COMPANY IN LIEU OF RESURFACING. THE PAYMENT SHALL BE BASED UPON THE UNIT PRICE FOR ASPHALT FROM THE CITY'S MOST RECENT RESURFACE CONTRACT AND THE AREA THAT WOULD HAVE TO BE RESURFACED ACCORDING TO THIS STANDARD. THE PAYMENT SHALL BE PRORATED ACCORDING TO THE CITY'S RESURFACING SCHEDULE AT A RATE OF 10% PER YEAR. FOR EXAMPLE, IF THE STREET IS SCHEDULED TO BE RESURFACED IN ONE YEAR, ONLY 10% WILL BE CHARGED, IN 2 YEARS ONLY 20%, ETC. THIS PAYMENT OPTION SHALL NOT APPLY TO RECENTLY RESURFACED STREETS.

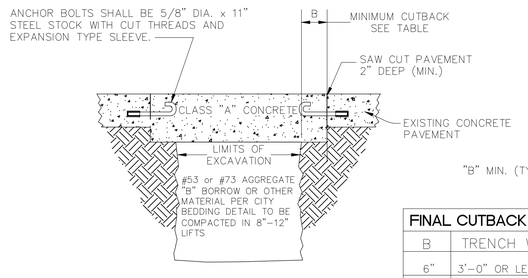
CITY OF LAFAYETTE
METHOD FOR REPLACING MULTIPLE CUTS



LAP JOINT DETAIL
NOT TO SCALE
LAP.NT.DWG 7/2/98

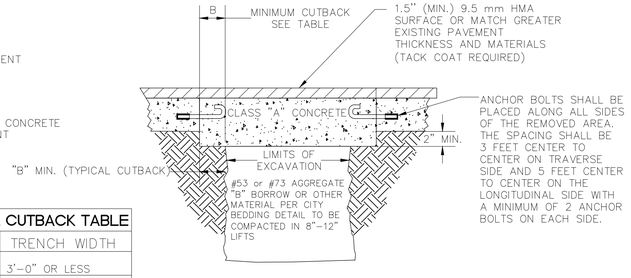


BUTT JOINT DETAIL
NOT TO SCALE
BUTTJNT.DWG 7/2/98

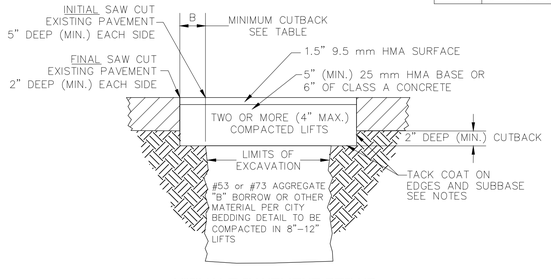


CONCRETE PAVEMENT REPAIR

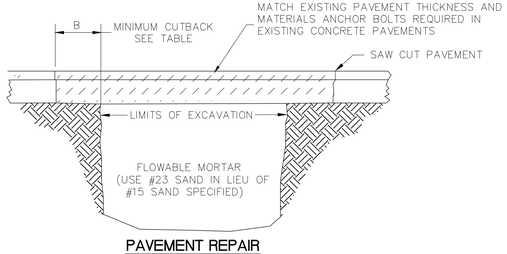
FINAL CUTBACK TABLE	
B	TRENCH WIDTH
6"	3'-0" OR LESS
9"	3'-1" TO 5'-0"
12"	5'-1" OR GREATER



ASPHALT OVER CONCRETE PAVEMENT REPAIR



ASPHALT PAVEMENT REPAIR

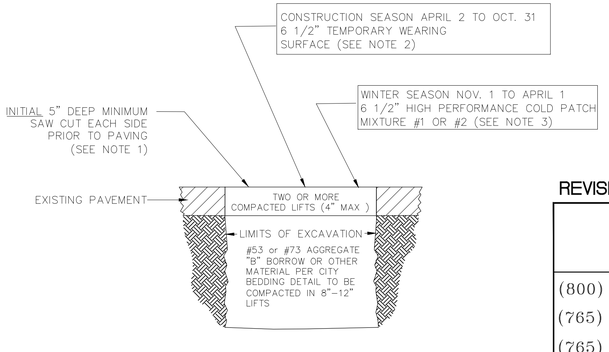


PAVEMENT REPAIR WITH FLOWABLE MORTAR BACKFILL

(FLOWABLE MORTAR SHALL NOT BE USED WHEN TEMPERATURES ARE BELOW 38° F)

***USE OF FLOWABLE MORTAR REQUIRES PRIOR APPROVAL OF CITY ENGINEER'S OFFICE.

PERMANENT PAVEMENT RESTORATION
NOT TO SCALE
PVMT-RES.DWG 7/6/99



TEMPORARY ASPHALT REPAIR
NOT TO SCALE
PVMT-TEMP.DWG 7/6/99

PAVEMENT RESTORATION NOTES

GENERAL:

1. MAINTENANCE OF ANY STREET RESTORATION OR REPAIR SHALL BE THE RESPONSIBILITY OF THE INDIVIDUAL UTILITY OR DEVELOPER AUTHORIZED TO MAKE SUCH REPAIR UNTIL THE STREET HAS BEEN RESURFACED.

PERMANENT PAVEMENT RESTORATION:

1. PERMANENT RESTORATION SHALL COMMENCE IMMEDIATELY UPON COMPLETION OF UTILITY WORK AND BE COMPLETE WITHIN (10) WORKING DAYS UNLESS THE CITY ENGINEER'S OFFICE GRANTS A LONGER PERIOD. REQUEST FOR EXTENSION SHALL BE IN WRITTEN FORM AND ACCOMPANIED WITH A REPAIR SCHEDULE, INVENTORY OF EXISTING TEMPORARY RESTORATIONS, AND STATEMENT INDICATING THE REASON(S) FOR THE EXTENSION.

2. EXISTING PAVEMENT SAW CUTS SHALL BE IN STRAIGHT LINES AND ARE PERPENDICULAR TO THE CURB (WHERE POSSIBLE). EDGES OF BROKEN PAVEMENT SHALL BE SQUARED OFF TO PROVIDE NEAT EDGE FOR PAVING.

3. ASPHALT SHALL BE PLACED USING PROFESSIONAL MEANS TO ESTABLISH A HARD, SMOOTH, EVEN GRADED SURFACE. COMPACTION SHALL BE DONE THOROUGHLY AND UNIFORMLY BY A MACHINE ROLLER. AREAS TOO SMALL FOR MACHINE ROLLING SHALL BE COMPACTED BY HAND WITH MECHANICAL COMPACTION EQUIPMENT UPON PRIOR APPROVAL OF THE CITY. ALL COURSES SHALL BE INITIALLY ROLLED WITH THE ROLLER TRAVELING PARALLEL TO THE CENTERLINE OF THE PAVEMENT BEGINNING AT EACH EDGE AND WORKING TOWARD THE CENTER. ALL ROLLING AND TAMPING OPERATIONS SHALL BE COMPLETED PRIOR TO ASPHALT COOLING TO BELOW 180°F.

4. PRIOR TO TACK COATING SUBBASE AND EDGES, THE EXISTING SURFACE SHALL BE FREE OF IRREGULARITIES TO PROVIDE A REASONABLY SMOOTH AND UNIFORM SURFACE TO RECEIVE TREATMENT. THE EDGES OF EXISTING PAVEMENT SHALL BE CLEANED TO PERMIT ADHESION. TACK COAT SHALL NOT BE APPLIED TO WET SURFACES OR WHEN THE AIR TEMPERATURE IS BELOW 45°F. TACK COAT MAY BE ROLLED, BRUSHED OR MOPPED. ALL EXCESS TACK COAT SHALL BE SQUEEGEED FROM THE SURFACE.

5. ALL PAVEMENT RESTORATION MATERIALS TO BE PER INDOT "STANDARD SPECIFICATIONS", 1999 EDITION.

TEMPORARY PAVEMENT REPAIR:

1. EXISTING PAVEMENT INITIAL SAW CUT TO BE 5" MINIMUM DEPTH TO OBTAIN STRAIGHT LINES PERPENDICULAR FROM THE CURB EDGE AND NEAT EDGE FOR PAVING. EDGES OF BROKEN PAVEMENT SHALL BE SQUARED OFF AND TRIMMED TO NEAT STRAIGHT LINES.

2. TEMPORARY PAVEMENT MATERIAL IS TO BE 6 1/2 INCHES THICK HOT MIX ASPHALT. ASPHALT COLD PATCH, BAG ASPHALT AND CRUSH STONE ARE UNACCEPTABLE FOR USE. THE USE OF STEEL STREET PLATES MUST BE REQUESTED IN WRITTEN FORM AND ACCOMPANIED WITH A REPAIR SCHEDULE, INVENTORY OF EXISTING TEMPORARY RESTORATIONS, AND STATEMENT INDICATING THE REASON(S) FOR USE OF PLATES.

3. DURING WINTER SEASON WHEN THE PERMANENT PATCH CANNOT BE COMPLETED WITHIN 10 WORKING DAYS (NOVEMBER 1 THRU APRIL 14), IF HOT MIX ASPHALT IS NOT AVAILABLE, USE INDOT APPROVED "HIGH PERFORMANCE COLD PATCH" OR EQUAL INDOT APPROVED MATERIAL.

   HIGH PERFORMANCE COLD PATCH MIXTURE #1 (UPM), IS FOR USE IN WET AND COLD CONDITIONS AND WORKABLE AT TEMPERATURES AS LOW AS -15°F.

   HIGH PERFORMANCE COLD PATCH MIXTURE #2 (CM300), IS FOR USE IN WET AND COLD CONDITIONS AND WORKABLE AT TEMPERATURES AS LOW AS 32°F.

4. ALL MATERIALS ARE TO BE COMPACTED TO FORM A FIRM AND SMOOTH TRANSITION BETWEEN OLD AND NEW SURFACE GRADE. DO NOT APPLY HOT MIX ASPHALT ON A WET SURFACE.

5. UPON COMPLETION OF BACKFILLING, TEMPORARY PAVEMENT ON STREETS SHALL BE PLACE BY THE END OF WORK DAY.

6. TEMPORARY STREET RESTORATION IS INTENDED TO BE AN INTERIM MEASURE UNTIL CONDITIONS ALLOW FOR PERMANENT RESTORATION OF THE STREET. THE CITY REALIZES THAT AT TIMES, TEMPORARY RESTORATION IS NECESSARY, SUCH AS, DURING THE WINTER SEASON WHEN THE ASPHALT PLANTS ARE CLOSED AND WHEN FREEZING TEMPERATURES MAKE PERMANENT RESTORATION NOT FEASIBLE OR WHEN PERMIT WORK PRECEDES CITY STREET RECONSTRUCTION OR REHABILITATION. PERMIT HOLDERS ARE TO MINIMIZE THE USE OF TEMPORARY RESTORATIONS WHEN POSSIBLE. ANY WORK UNDERTAKEN BEFORE NOVEMBER 1 SHALL BE PERMANENTLY RESTORED BEFORE THE FALL ASPHALT PLANT CLOSINGS. ONLY WORK UNDERTAKEN ON OR AFTER NOVEMBER 1 MAY BE CARRIED OVER TO PERMANENT RESTORATION IN THE FOLLOWING SPRING SEASON ALL TEMPORARY RESTORATION PLACED DURING THE WINTER SEASON MUST BE PERMANENTLY RESTORED WITHIN FOUR (4) WEEKS OF SPRING ASPHALT PLANT OPENINGS, BUT NO LATER THAN MAY 15TH. THE CITY ENGINEER'S OFFICE MAY GRANT EXTENSIONS BEYOND MAY 15TH FOR PERMANENT RESTORATIONS WHEN REQUESTED IN WRITING AND ACCOMPANIED WITH A REPAIR SCHEDULE, INVENTORY OF EXISTING TEMPORARY RESTORATIONS, AND STATEMENT INDICATING THE REASON(S) FOR THE EXTENSION

SPECIAL SURFACE STREETS:

1. ANY SPECIAL SURFACES SHALL BE RESTORED IN-KIND. FOR EXAMPLE. BRICK SURFACE STREETS REQUIRE ALL PAVEMENT CUTS TO BE RESTORED WITH BRICK. COBBLESTONE SURFACE STREETS MUST BE RESTORED WITH COBBLESTONE. PERMIT HOLDER SHALL SALVAGE AS MUCH OF THE EXISTING BRICK OR COBBLESTONE AS POSSIBLE FOR REUSE IN THE RESTORATION AND SHALL SUPPLY ANY REMAINING MATERIAL REQUIRED FOR THE RESTORATION.

REVISED 09/01/2013

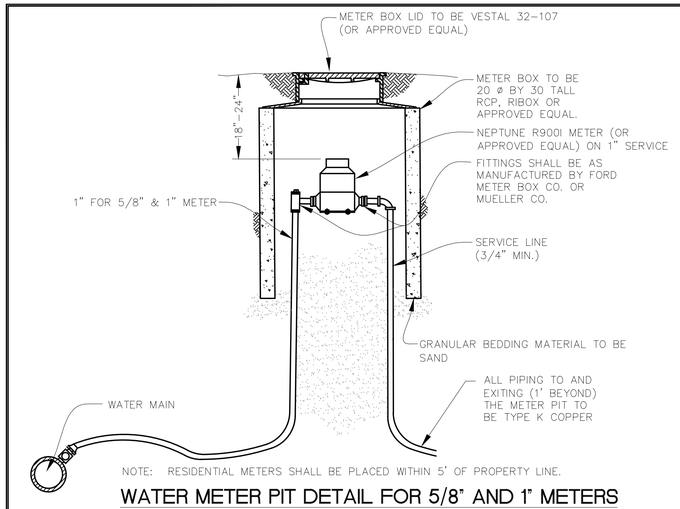
PROJECT NAME	PROJECT SHEET NUMBER
	of

CITY OF LAFAYETTE

(800) 382-5544	HOLEY MOLEY	20 NORTH SIXTH STREET LAFAYETTE, INDIANA 47901
(765) 807-1050	CITY ENGINEER	
(765) 807-1800	WATER POLLUTION CONTROL-SEWERS	
(765) 807-1700	WATER WORKS	PAVEMENT REPAIR AND RESTORATION
(765) 807-1600	FIRE DEPT.	TYPICAL SECTIONS AND NOTES
(765) 807-1210	POLICE DEPT.	

DATE JUNE 2013

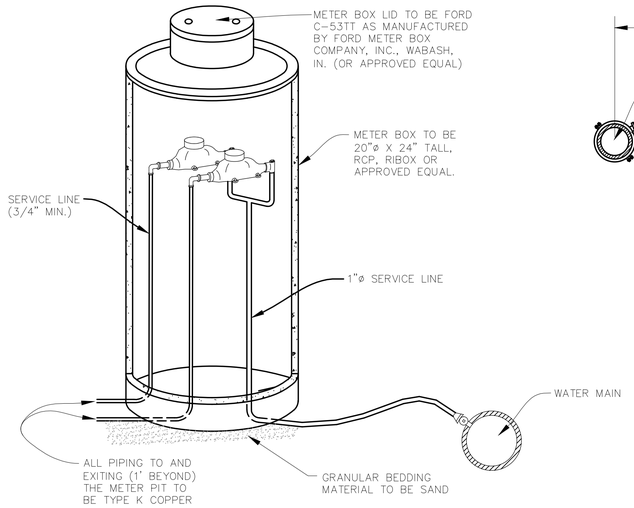
SHEET 5 OF 12



NOTE: RESIDENTIAL METERS SHALL BE PLACED WITHIN 5' OF PROPERTY LINE.

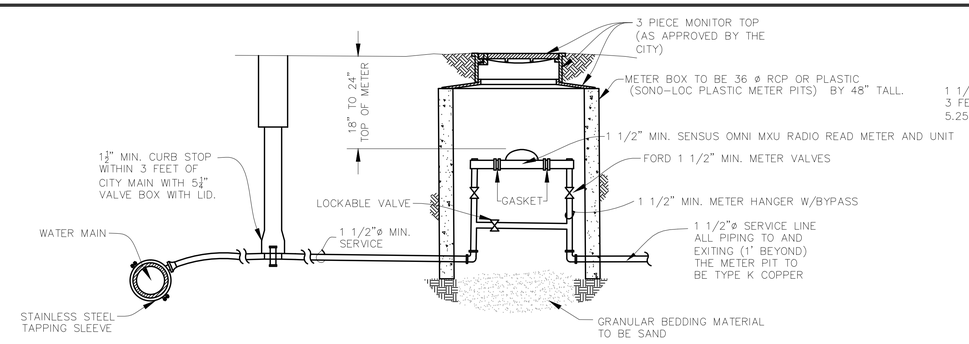
WATER METER PIT DETAIL FOR 5/8" AND 1" METERS

NOT TO SCALE
1METER.DWG 7/2/98



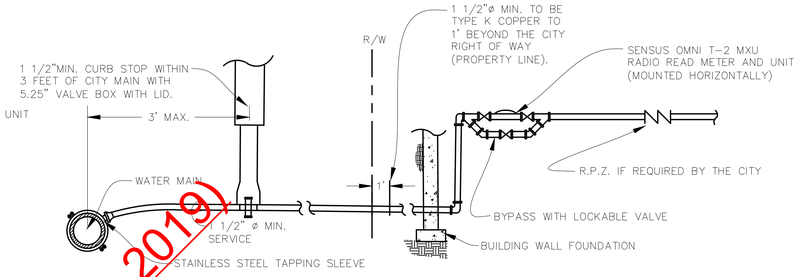
STANDARD DOUBLE METER PIT INSTALLATION FOR 5/8" METERS

NOT TO SCALE
2METERS.DWG 7/2/98



WATER METER PIT DETAIL FOR 1 1/2" AND 2" COMMERCIAL METERS

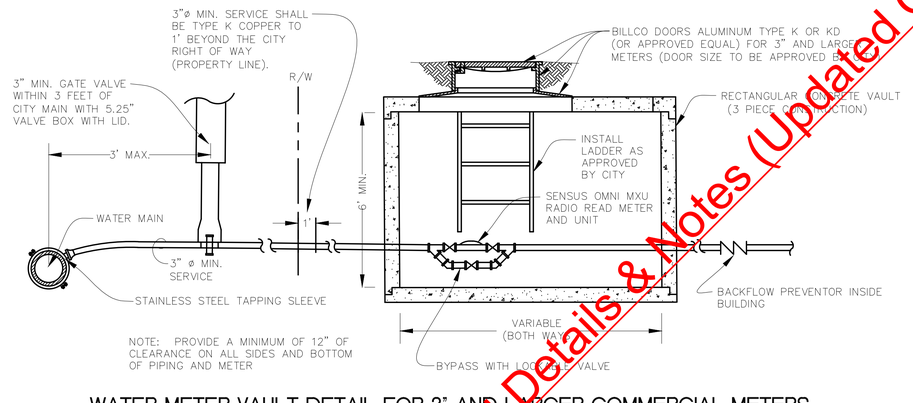
NOT TO SCALE
1-5METER.DWG 7/2/98



NOTE: METER SHALL BE MIN. OF 12" ABOVE FLOOR, MAX. OF 48" ABOVE FLOOR AND MIN. 12" FROM EXTERIOR WALL AND ALL SIDES OF METER.

INTERIOR METER INSTALLATION DETAIL FOR 1 1/2" AND LARGER COMMERCIAL METERS

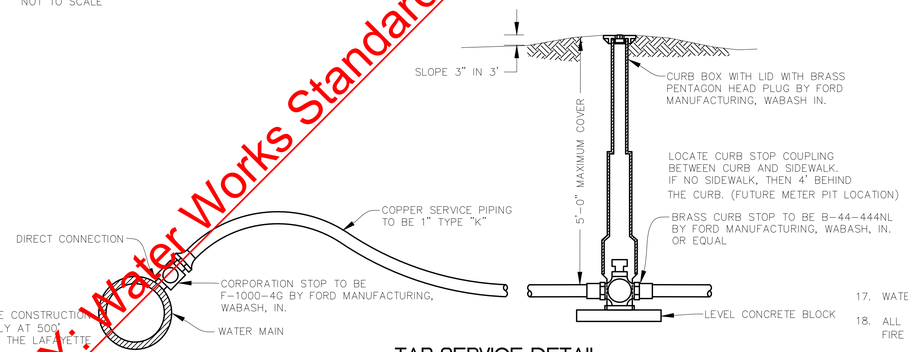
NOT TO SCALE
INTERIOR.DWG 7/2/98



NOTE: PROVIDE A MINIMUM OF 12" OF CLEARANCE ON ALL SIDES AND BOTTOM OF PIPING AND METER

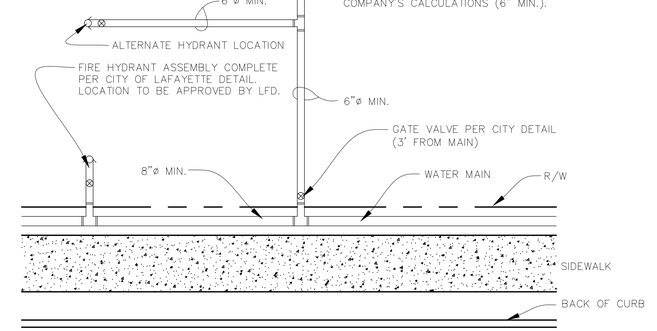
WATER METER VAULT DETAIL FOR 3" AND LARGER COMMERCIAL METERS

NOT TO SCALE



TAP SERVICE DETAIL

NOT TO SCALE
TAP-SERV.DWG 7/2/98



COMMERCIAL LOT WITH FIRE SERVICE DETAIL (TYP.)

NOT TO SCALE
COM-FIRE.DWG 7/2/98

WATER MAIN NOTES

NOTES-WT.DWG 7/2/98

1. ALL WATER MAINS SHALL BE CEMENT LINED DUCTILE IRON (D.I.) (PRESSURE CLASS 250 MIN., SLIP JOINT PIPE CONFORMING TO AWWA C-110, C-111, C-150 AND C-151 AS APPLICABLE AND NSF-61.
2. ALL FITTINGS TO BE DUCTILE IRON (D.I.) WITH MECHANICAL JOINTS (M.J.) CONFORMING TO AWWA C-110, C-111, C-153 AND NSF-61.
3. ALL WATER SERVICE LINES SHALL BE 1" DIAMETER (MINIMUM) TYPE K COPPER TUBING TERMINATING WITH A CURB STOP. SERVICE LINE LOCATIONS SHALL BE MARKED BY STAMPING OR SAW CUTTING A "W" IN THE CURB. THE CURB STOP/WATER SERVICE SHOULD BE LOCATED ON P/L OR WITHIN 5'.
4. THE MANUFACTURER'S ALLOWABLE PIPE DEFLECTION SHALL BE USED TO MAINTAIN THE VERTICAL AND HORIZONTAL ROUTE UNLESS OTHER FITTINGS (i.e. TEES AND ELBOWS) OR METHODS ARE SPECIFICALLY CALLED OUT, OR ARE DIRECTED BY THE CITY.
5. MEG-A-LUG RETAINER GLANDS BY EBBA IRON, INC., EASTLAND, TX SHALL BE USED ON EACH SIDE OF FITTINGS WHERE THE WATER MAIN CHANGES DIRECTION. ADDITIONAL SETS OF RETAINER GLANDS ARE TO BE PLACED AT PIPE LENGTHS ABOVE AND BELOW THE FITTINGS AS REQUIRED (SEE CHART ON SHEET #7). FIELD-LOK GASKETS OR ONE BOLT RESTRAINED FITTINGS CAN BE USED IN LIEU OF RETAINER GLANDS.
6. THE MINIMUM SIZE REQUIREMENT FOR ALL COMMERCIAL WATER SERVICE LATERALS IS ONE (1) INCH. (1" SERVICE LINE AND 1" METER)
7. ALL INDUSTRIAL/COMMERCIAL DEVELOPMENTS SHALL HAVE A MINIMUM 6" X "MAIN SIZE" TEE INSTALLED TO EACH PROPOSED LOT FOR FUTURE FIRE/ DOMESTIC SERVICE (SEE SITE PLAN FIRE SERVICE DETAIL).
8. WATER MAINS SHALL HAVE A MINIMUM OF 5'-0" COVER. WATER MAIN COVER SHALL NOT EXCEED 11' WITHOUT CITY APPROVAL. ANY DEVIATIONS FROM PLAN GRADE MUST BE SHOWN ON THE "AS-BUILT" DRAWINGS.
9. DEVELOPMENT OF PROPERTY MAY REQUIRE CONSTRUCTION OF ADDITIONAL FIRE HYDRANTS, GENERALLY AT 500' MINIMUM INTERVAL, AND AS REQUIRED BY THE LAFAYETTE FIRE DEPARTMENT.
10. THE COMPLETED WATER MAIN SHALL BE SUBJECTED TO A 150 PSI HYDROSTATIC TEST AND SHALL BE DISINFECTED. ALL VALVES AND HYDRANTS MUST BE COMPLETELY OPENED AND CLOSED AND ALL CORPORATION STOPS AND SERVICE LINES IN PLACE PRIOR TO PERFORMING THE HYDROSTATIC TEST. THE HYDROSTATIC TEST SHALL BE OF AT LEAST 2-HR DURATION. TEST PRESSURE SHALL NOT VARY MORE THAN +/- 5 PSI FOR THE DURATION OF THE TEST. GAUGES FOR TESTING SHALL BE READABLE TO 150 PSI OR GREATER AND SHALL INDICATE PRESSURE IN 5 PSI (MAX) INCREMENTS. THE TEST WILL BE PERFORMED IN ACCORDANCE WITH CITY TESTING PROCEDURES, AND IN CONFORMANCE WITH AWWA C-600. ALL VALVES INCLUDING THE WATCH VALVES AT THE HYDRANTS SHALL BE OPEN DURING THE PRESSURE AND BACTERIA TESTS. HYDROSTATIC AND BACTERIAL TESTING SHALL BE COMPLETED WITHIN 30 DAYS AFTER THE COMPLETED WATER MAIN HAS BEEN CHARGED (FILLED). AFTER FINAL FLUSHING AND AGING 24 HOURS, SAMPLES SHALL BE COLLECTED FROM THE WATER MAIN, AND SHALL BE TESTED FOR BACTERIOLOGICAL QUALITY IN ACCORDANCE WITH THE STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER (AT AN APPROVED LABORATORY). TESTS SHALL SHOW THE ABSENCE OF COLIFORM ORGANISMS. THE CONTRACTOR MUST CONTACT THE WATERWORKS PUBLIC WORKS INSPECTOR TO DETERMINE THE LOCATION AND NUMBER OF BACTERIA SAMPLES TO BE TAKEN, AND TO SET A SAMPLING DATE AND TIME. THE ORIGINALS OF ALL TEST RESULTS AND CHAIN OF CUSTODY FORMS ARE TO BE SENT TO THE WATERWORKS WITHIN 5 DAYS OF TESTING WITH A COPY TO THE CITY ENGINEER'S OFFICE.
11. VALVE OPENING DIRECTION SHALL BE CONSISTENT WITH THE EXISTING UTILITY SYSTEM. (LEFT HAND OPEN/COUNTER CLOCKWISE) VALVE LOCATIONS SHALL BE MARKED BY STAMPING OR CUTTING A "V" IN THE CURB, AND PLACING A PARTIALLY BURIED 2x4 AT THE LOCATION.
12. TRENCHES UNDER PAVED AREAS (EXCLUDING SIDEWALKS) SHALL BE BACKFILLED WITH GRANULAR MATERIAL PER INDIANA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS", LATEST EDITION, SECTION 211, AND COMPACTED IN LIFTS. GRANULAR MATERIAL TO EXTEND FIVE FEET BEYOND THE LIMITS OF THE PAVED AREA WITH A 1:1 SLOPE TO THE BOTTOM OF THE TRENCH. GRANULAR BEDDING IS REQUIRED UNDER ALL PAVED AREAS (EXCLUDING SIDEWALKS).
13. 18" VERTICAL SEPARATION AND 10'-0" HORIZONTAL SEPARATION TO BE MAINTAINED BETWEEN WATER MAINS, HYDRANTS AND SEWERS (SANITARY AND STORM).
14. TAPS AND FITTINGS ARE NOT TO BE INSTALLED UNDER PAVEMENTS OR IN EASEMENTS WITHOUT PRIOR APPROVAL OF THE CITY.
15. WATERWORKS DEPT. ONLY SHALL OPEN VALVES TO CHARGE NEW LINES.
16. TAPPING OF A CITY MAIN CAN ONLY BE DONE UNDER SUPERVISION OF THE CITY. TAPPING SLEEVES AND VALVES FOR PRESSURE TAPS ON MAINS UP TO 24"ø SHALL BE MUELLER H-615, H-616 (OR STAINLESS STEEL SLEEVES) TAPPING VALVES SHALL BE 2360 SERIES BY MUELLER OR THE AFC 2500. TEES FOR MAINS WILL BE CUT-IN ONLY WHEN THE NEW MAIN IS TO BE LARGER THAN OR OF EQUAL SIZE TO THE EXISTING MAIN OR WHEN A NEW VALVE IS TO BE INSTALLED ON THE EXISTING MAIN NEAR THE LOCATION OF THE NEW TEE. SIZE-ON-SIZE IS PERMISSABLE FOR MAINS 12"ø AND UNDER. STAINLESS STEEL SLEEVES SHALL MEET THE FOLLOWING REQUIREMENTS:
    A) DUCTILE IRON OR STAINLESS STEEL FLANGE
    B) 304 STAINLESS STEEL FULL BODY WITH STAINLESS STEEL BOLTS AND NUTS.
17. WATER TAP SERVICE TO BE PROVIDED FOR BOTH SHORT AND LONG SIDES.
18. ALL FIRE PLANS, SPRINKLER PLANS SHALL BE SUBMITTED TO THE LAFAYETTE FIRE DEPARTMENT (LFD) FOR REVIEW AND APPROVAL
19. FLOW TEST DATA SHALL BE OBTAINED BY THE DEVELOPER/OWNER AT NO COST TO THE CITY AND UNDER THE SUPERVISION OF THE LFD AND WATERWORKS DEPT. TEST RESULTS AND LFD CERTIFICATION TO BE SUBMITTED TO THE CITY ENGINEER'S OFFICE.
20. ALL DOMESTIC (LAWN) SPRINKLER SYSTEMS SHALL BE 1-INCH SERVICE.
21. WHENEVER PROPRIETARY EQUIPMENT IS SPECIFIED, "OR APPROVED EQUAL IMPLIED. ALL PROPOSALS FOR SUBSTITUTION SHALL BE SUBMITTED TO THE CITY IN WRITING FOR THEIR APPROVAL.

JENNIFER M LESHNEY
REGISTERED
Nº PE9500449
STATE OF INDIANA
PROFESSIONAL ENGINEER

PROJECT NAME	PROJECT SHEET NUMBER
	of

REVISED 09/01/2013

CITY OF LAFAYETTE

(800) 382-5544 HOLEY MOLEY	20 NORTH SIXTH STREET
(765) 807-1050 CITY ENGINEER	LAFAYETTE, INDIANA 47901
(765) 807-1800 WATER POLLUTION CONTROL-SEWERS	
(765) 807-1700 WATER WORKS	WATER MAIN, AND METER
(765) 807-1600 FIRE DEPT.	TYPICAL DETAILS AND NOTES
(765) 807-1210 POLICE DEPT.	

DATE
JUNE 2013

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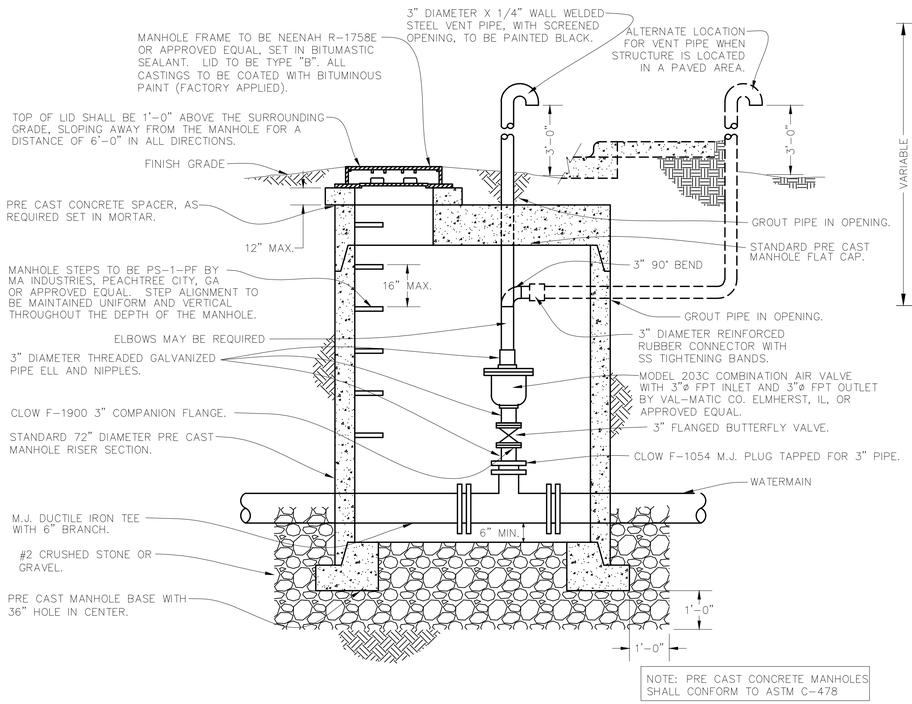
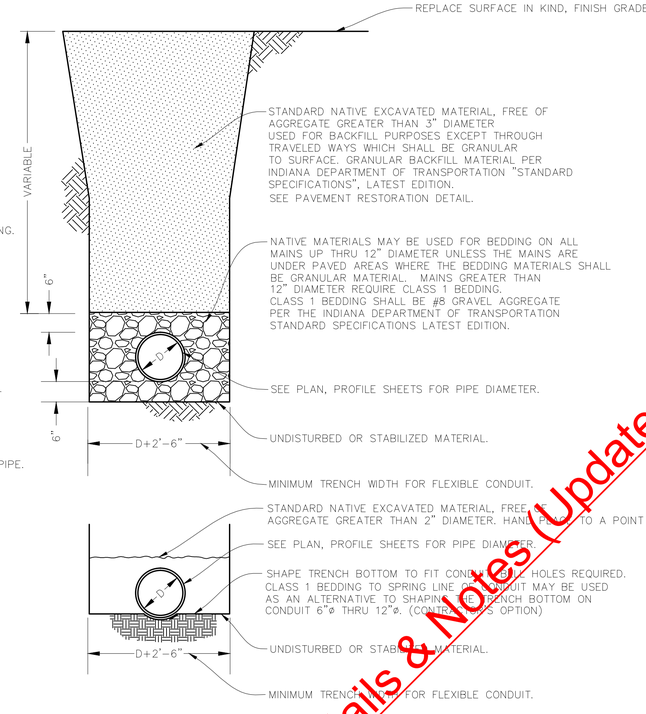


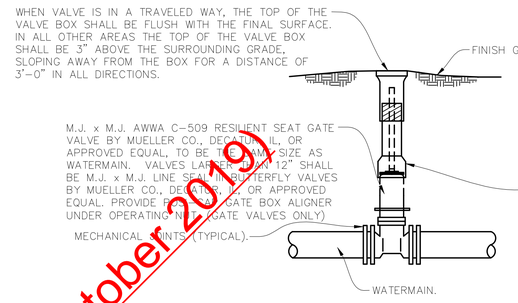
WATERMAIN AIR RELIEF MANHOLE (12"ϕ TO 18"ϕ MAIN)

NOT TO SCALE
AIR-REL.DWG 7/2/98



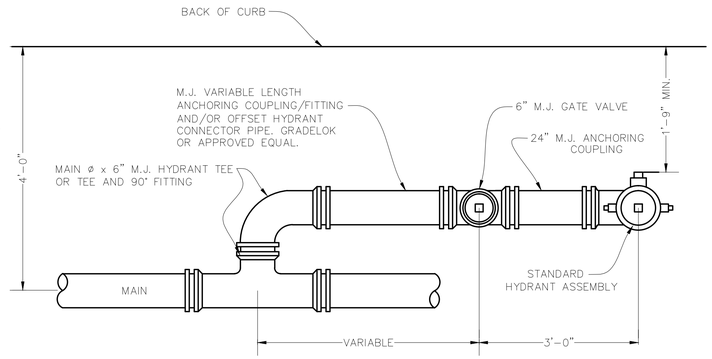
STANDARD BEDDING DETAIL

NOT TO SCALE
ST-BED.DWG 7/2/98



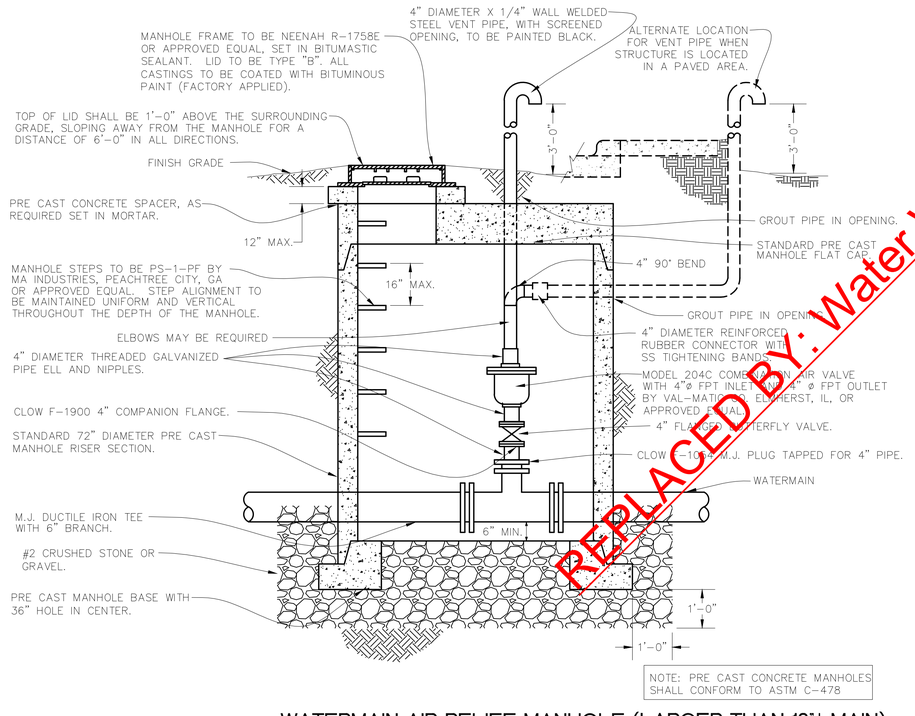
VALVE DETAIL

NOT TO SCALE
VALVE3.DWG 7/2/98



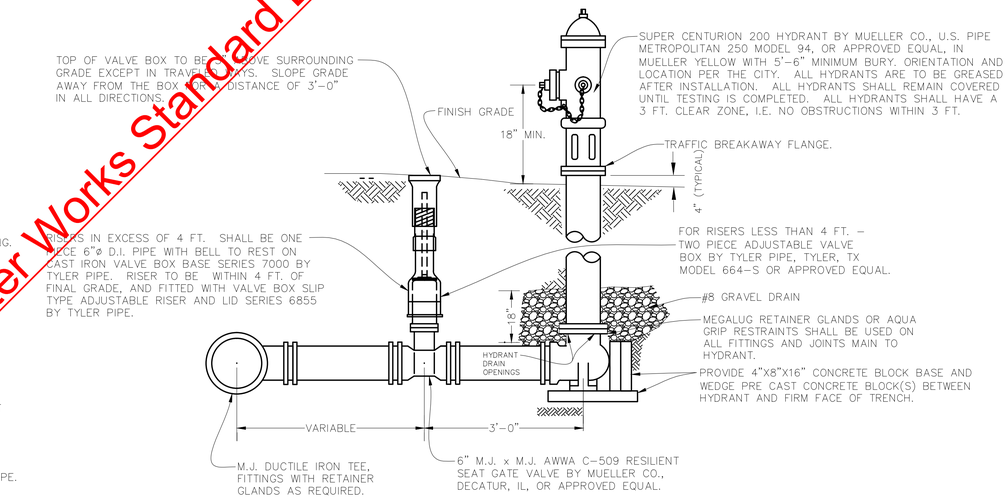
HYDRANT DETAIL

NOT TO SCALE
HYDRANT.DWG 7/2/98



WATERMAIN AIR RELIEF MANHOLE (LARGER THAN 18"ϕ MAIN)

NOT TO SCALE
AIR-REL.DWG 7/2/98



NOTE: FIRE HYDRANTS USED AS AIR RELEASE

1) PROVIDE POSITIVE SLOPE UPWARD FROM HYDRANT TEE TO FIRE HYDRANT BASE.
2) M.J. DUCTILE IRON PIPE AND FITTINGS WITH RETAINER GLANDS AT EACH FITTING REQUIRED.
3) TEE INTO MAIN AT TOP OF PIPE.

FIRE HYDRANT DETAIL

NOT TO SCALE
HY-ARELDWG 4/2/98

RESTRAINED JOINTS

DUCTILE IRON PIPE, CLAY SOIL, GRANULAR BEDDING REQUIRED RESTRAINT IN FEET AT 6' DEPTH (COVER) AND 150 PSI				
ANGLE OF BEND / PIPE SIZE	90°	45°	22½°	11¼°
6"	32	14	7	4
8"	41	17	9	4
10"	50	21	10	5
12"	59	25	12	6
14"	69	29	14	7
16"	78	33	16	8
18"	87	37	18	9
20"	96	40	20	10
24"	114	48	23	12

JENNIFER M LESLIE REGISTERED Nº PE9500449 STATE OF INDIANA PROFESSIONAL ENGINEER

REVISED 09/01/2013

PROJECT NAME	PROJECT SHEET NUMBER
	of

CITY OF LAFAYETTE

(800) 382-5544 HOLEY MOLEY
(765) 807-1050 CITY ENGINEER
(765) 807-1800 WATER POLLUTION CONTROL-SEWERS
(765) 807-1700 WATER WORKS
(765) 807-1600 FIRE DEPT.
(765) 807-1210 POLICE DEPT.

20 NORTH SIXTH STREET
LAFAYETTE, INDIANA 47901

DATE
JUNE 2013

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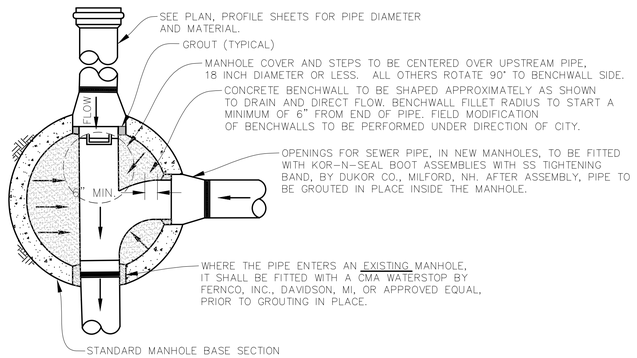
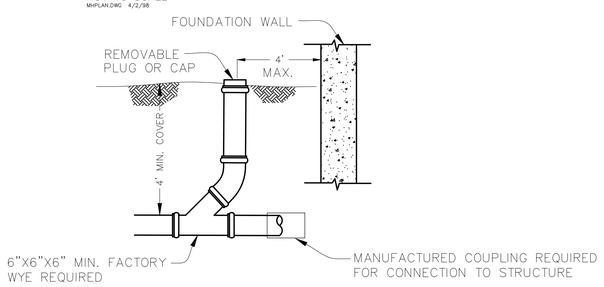
WATERMAIN AND HYDRANT
TYPICAL DETAILS AND NOTES



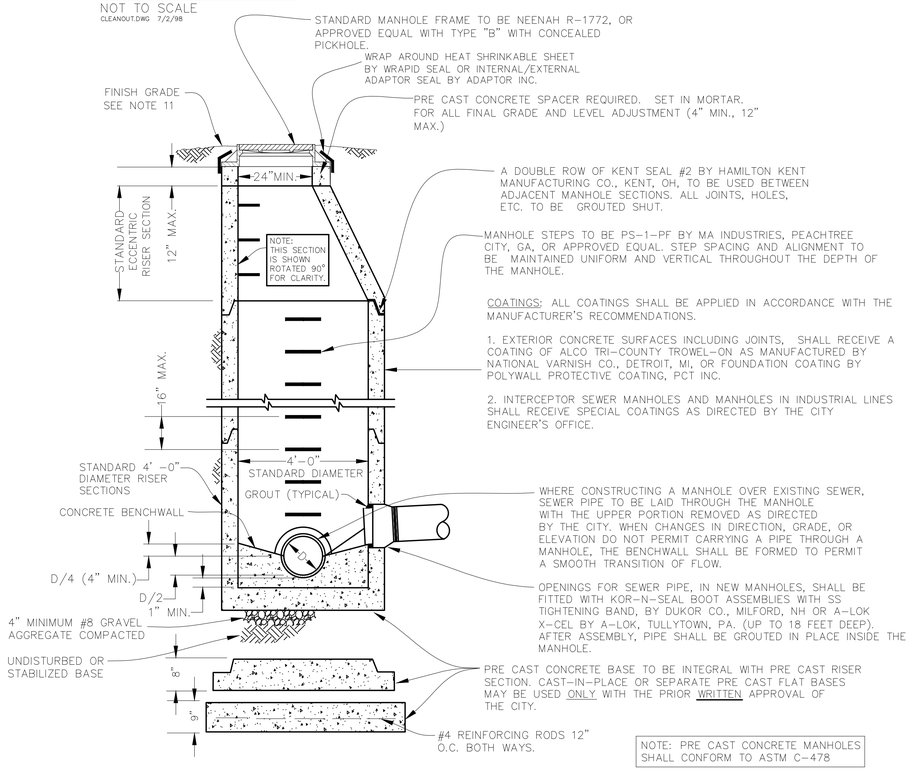
STANDARD SANITARY MANHOLE PLAN

NOT TO SCALE
MHPLAN.DWG 4/2/98



CLEAN-OUT DETAIL

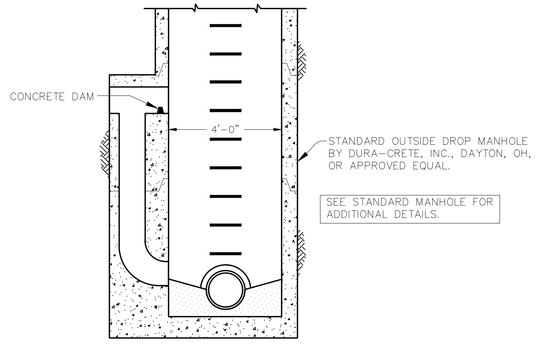
NOT TO SCALE
CLEANOUT.DWG 7/2/98



NOTE: PRE CAST CONCRETE MANHOLES SHALL CONFORM TO ASTM C-478

STANDARD SANITARY MANHOLE DETAIL

NOT TO SCALE
MH.DWG 7/2/98



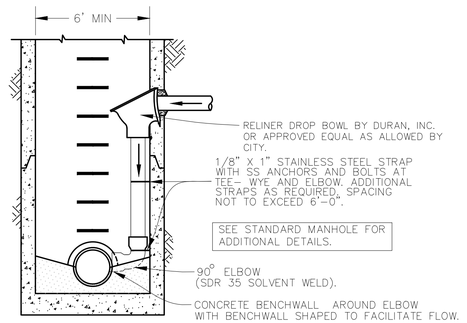
NOTE: PRIOR WRITTEN APPROVAL OF THE CITY IS REQUIRED FOR USE OF A DROP MANHOLE. DROP MANHOLES ARE GENERALLY NOT APPROVED FOR DROPS LESS THAN 8 FEET.

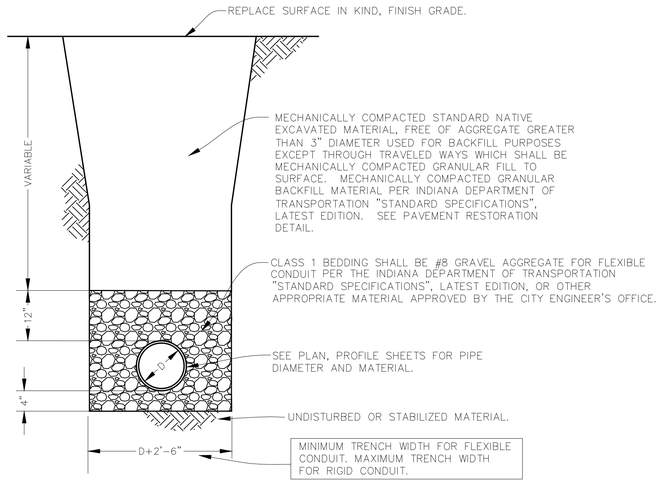
PRE CAST OUTSIDE DROP MANHOLE

NOT TO SCALE
DROPMH.DWG 7/2/98

INSIDE DROP MANHOLE DETAIL

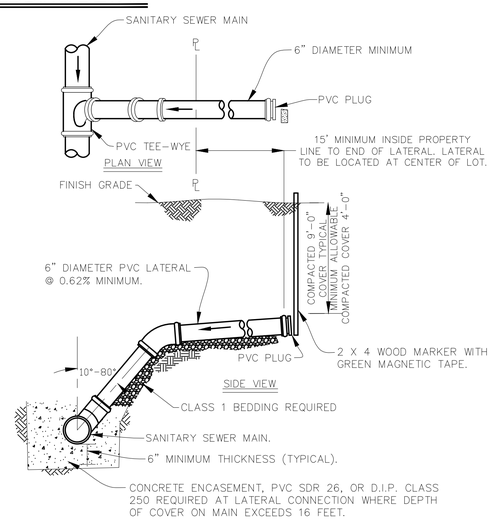
(EXISTING MANHOLES ONLY)
NOT TO SCALE





STANDARD BEDDING DETAIL

NOT TO SCALE
BEDDTL.DWG 7/2/98



LATERAL CONNECTION DETAIL

NOT TO SCALE
LAT-CON.DWG 7/2/98

SANITARY SEWER NOTES

NOTES-SS.DWG 7/2/98

1. SANITARY SEWERS TO BE POLYVINYL CHLORIDE (PVC) SDR 35 PIPE AND SHALL MEET OR EXCEED ASTM D-3034 OR ASTM 679 AS APPLICABLE. JOINTS SHALL BE GASKETED, BELL AND SPIGOT TYPE WITH THE BELL MADE INTEGRAL WITH THE PIPE. SEE PLAN, PROFILE SHEETS FOR SIZES. SANITARY SEWERS TO BE SDR 26 PIPE FOR DEPTH 16' OR GREATER.
2. SANITARY SEWER LATERALS FOR HOUSE CONNECTIONS SHALL BE 6" DIAMETER PVC SDR 35 CONFORMING TO ASTM D-3034, LAID AT A MINIMUM SLOPE OF 0.62% ENDS TO BE PLUGGED. JOINTS SHALL BE GASKETED BELL AND SPIGOT TYPE WITH THE BELL MADE INTEGRAL. PIPE LATERALS LONGER THAN 150' REQUIRE ADDITIONAL CLEANOUTS AT 100 FOOT MAXIMUM SPACING.
3. LATERAL CONNECTIONS TO AN EXISTING SEWER SHALL BE MADE WITH A BOOT-N-SADDLE WITH STAINLESS STEEL STRAPS AND APPROPRIATE RUBBER FITTING.
4. THE COMPLETED SANITARY SEWER SHALL BE HIGH PRESSURE WATER JET CLEANED AND SUBJECTED TO AN AIR TEST CONFORMING TO ASTM F1417-92. A DEFLECTION TEST SHALL BE PERFORMED WITH A "GO-NO-GO" MANDRELL (95%) ACCORDING TO IDEM STANDARDS. CLEANING, TELEVISING AND TESTING SHALL BE PERFORMED A MINIMUM OF 45 DAYS AFTER INSTALLATION AND WITNESSED BY THE CITY. ALL COSTS OF CLEANING AND TESTING ARE TO BE BORNE BY THE CONTRACTOR. CLOSED CIRCUIT TELEVISION INSPECTION OF THE SYSTEM SHALL BE REQUIRED. A COPY OF THE TAPE (VHS FORMAT) SHALL BE RETAINED BY THE CITY. ALL COSTS OF TELEVISING ARE TO BE BORNE BY THE CONTRACTOR.
5. MANHOLES SHALL BE AIR TESTED IN ACCORDANCE WITH ASTM C1244-93, STANDARD TEST METHOD FOR CONCRETE SEWER MANHOLES BY THE NEGATIVE AIR PRESSURE (VACUUM) TEST.
6. 18" VERTICAL SEPARATION AND 10'-0" HORIZONTAL SEPARATION TO BE MAINTAINED BETWEEN WATER MAINS, HYDRANTS, AND ALL SEWERS (SANITARY AND STORM).
7. TRENCHES UNDER PAVED AREAS (EXCLUDING SIDEWALKS) SHALL BE BACKFILLED WITH GRANULAR MATERIAL PER INDIANA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS", LATEST EDITION, AND COMPACTED IN LIFTS. GRANULAR MATERIAL TO EXTEND 5 FEET BEYOND THE LIMITS OF THE PAVED AREA WITH A 1:1 SLOPE TO THE BOTTOM OF THE TRENCH.
8. CONNECTIONS TO EXISTING MANHOLES TO BE MADE USING A CMA WATERSTOP GROUTED IN PLACE USING PRECO PLUG BY PRECO INDUSTRIES.
9. ALL SEWER LINES SHALL HAVE A 0.1 FT. DROP THROUGH THE MANHOLE. WHERE SEWER LINES CHANGE DIRECTION THE MANHOLE INVERT ELEVATION SHALL DROP 0.25 FEET (TYPICAL) THROUGH THE MANHOLE.
10. SEWER PERMIT AND CITY INSPECTION REQUIRED FOR ALL CONNECTIONS TO STORM AND SANITARY SEWER SYSTEMS. SEWER PERMIT REQUIRED ON SITE DURING ANY SEWER CONSTRUCTION.
11. TOP OF MANHOLE FRAMES TO BE SET AT PROPOSED YARD OR SIDEWALK GRADE WHEN LOCATED IN FRONT YARD AREA OF LOT OR RIGHT-OF-WAY. WHEN MANHOLE IS IN A TRAVELED WAY, THE TOP OF THE LID SHALL BE FLUSH WITH THE FINAL SURFACE, AND BACKFILL SHALL BE GRANULAR TO SURFACE. IN ALL OTHER AREAS THE TOP OF THE FRAME SHALL BE ONE FOOT ABOVE THE SURROUNDING GRADE, SLOPING AWAY FROM THE MANHOLE FOR A DISTANCE OF 6'-0" IN ALL DIRECTIONS.
12. WHERE PROPRIETARY EQUIPMENT IS SPECIFIED, "OR APPROVED EQUAL" IS IMPLIED. ALL PROPOSALS FOR SUBSTITUTION SHALL BE SUBMITTED TO THE CITY IN WRITING FOR THEIR APPROVAL.
13. MARK THE LOCATIONS OF THE SANITARY SEWER LATERALS BY STAMPING OR CUTTING "SS" IN THE CURB. SIMILARLY, STAMP OR CUT MH IN THE CURB TO MARK THE LOCATIONS OF MANHOLES.

TELEVISION INSPECTION CRITERIA

SANITARY SEWERS

NOTES-TV.DWG 7/2/98

SEWERS SHALL BE "FLOODED" BEFORE TELEVISION INSPECTION. THE IMAGE SHALL BE CLEAR ENOUGH TO ENABLE THE CITY REPRESENTATIVE AND OTHERS VIEWING THE MONITOR TO EASILY EVALUATE THE INTERIOR CONDITION OF THE PIPE.

ALL UNACCEPTABLE CONDITIONS FOUND DURING TELEVISION INSPECTION MUST BE CORRECTED BY THE CONTRACTOR AND RETELEVISED.

UNACCEPTABLE CONDITIONS ARE CONDITIONS THAT ADVERSELY EFFECT THE ABILITY OF THE SYSTEM TO FUNCTION AS DESIGNED OR TO BE PROPERLY MAINTAINED AND MAY INCLUDE, BUT ARE NOT LIMITED TO, THE FOLLOWING:

A. PROTRUDING TAPS
B. CRACKED OR FAULTY PIPE
C. MISALIGNED OR DEFORMED PIPE
D. DEBRIS IN LINE
E. INFILTRATION/EXFILTRATION
F. EXCESSIVE GAPS AT JOINTS
G. BELLIES OR SAGS WITH A DEPTH GREATER THAN OR EQUAL TO 10% (OR A MAXIMUM OF 1 1/2") OF PIPE DIAMETER AND/OR A LENGTH GREATER THAN 25 FEET

DETAILS AS TO REQUIRED TELEVISION EQUIPMENT AND REQUIRED TELEVISION INSPECTION REPORT ARE AVAILABLE FROM THE CITY ENGINEER'S OFFICE.

JENNIFER M. LESHNEY REGISTERED PROFESSIONAL ENGINEER N° PE9500449 STATE OF INDIANA

REVISED 09/01/2013

PROJECT NAME	PROJECT SHEET NUMBER
	of

CITY OF LAFAYETTE

(800) 382-5544	HOLEY MOLEY
(765) 807-1050	CITY ENGINEER
(765) 807-1800	WATER POLLUTION CONTROL-SEWERS
(765) 807-1700	WATER WORKS
(765) 807-1600	FIRE DEPT.
(765) 807-1210	POLICE DEPT.

20 NORTH SIXTH STREET
LAFAYETTE, INDIANA 47901

SANITARY SEWER
TYPICAL DETAILS AND NOTES

DATE JUNE 2013

SHEET 8 OF 12

GENERAL NOTES

1. ALL PROPOSALS WITH FLOW CALCULATIONS SHALL BE SUBMITTED TO THE CITY IN WRITING FOR THEIR APPROVAL.

2. GREASE INTERCEPTOR/OIL & GRIT SEPARATOR SIZE SHALL BE 1000 GAL. MINIMUM.

3. DETAIL SHOWS GENERAL SCHEMATIC REQUIREMENT.

4. ADEQUATE STRUCTURAL STRENGTH SHOULD BE PROVIDED TO ACCOMMODATE VEHICULAR TRAFFIC.

5. WHENEVER PROPRIETARY EQUIPMENT IS SPECIFIED, "OR APPROVED EQUAL" IS IMPLIED.

6. RATIO OF L X W X D IS APPROXIMATELY 2:1:1.

7. INTERIOR BAFFLE WALL EITHER PRECAST OR BLOCKED.

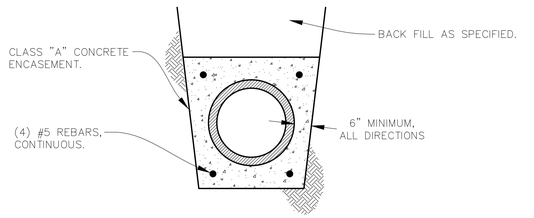
8. ANY GREASE INTERCEPTOR/OIL & GRIT SEPARATOR OVER 10 FEET LONG NEEDS THIRD MANWAY ADDED.

9. SIX INCH (6") MIN. CLEAN OUT ON INLET 4' FROM FOUNDATION AND 6" MIN. CLEAN OUT ON OUTLET END OF INTERCEPTOR/SEPARATOR.

10. FOR A GREASE INTERCEPTOR THE DISTANCE FROM THE TANK BOTTOM TO THE PVC DROP LEG IS 12 INCHES MAXIMUM.

11. FOR AN OIL & GRIT SEPARATOR THE DISTANCE FROM THE TANK BOTTOM TO THE PVC DROP LEG IS 24 INCHES MAXIMUM OR AS APPROVED.

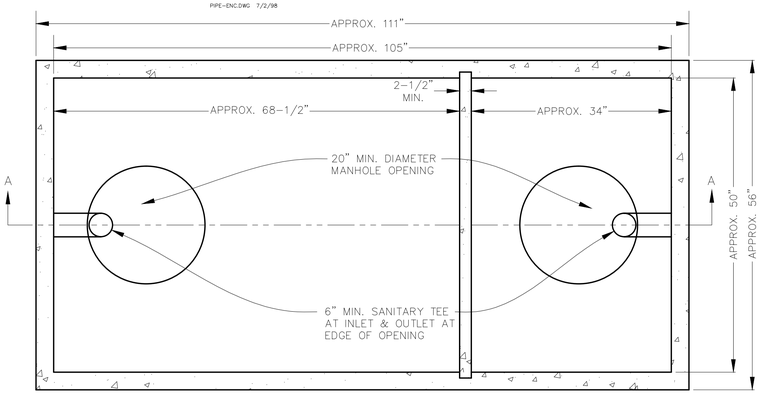
12. PORTS THROUGH INTERIOR BAFFLE WALL CAN BE ROUND (SHOWN), RECTANGULAR, OR AS APPROVED.



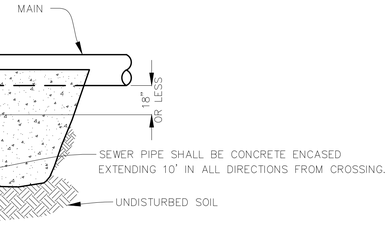
PIPE ENCASEMENT DETAIL

NOT TO SCALE

PIPE-ENC.DWG 7/2/98



TOP VIEW

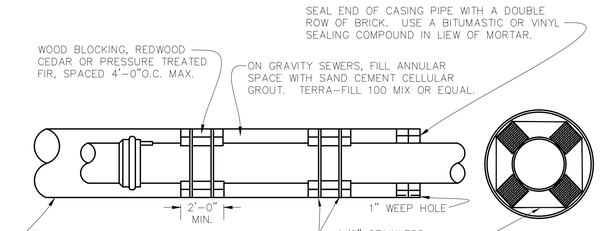


NOTE: THIS DETAIL TO BE USED WHEN A MAIN, SEWER OR WATER, CROSSES WITHIN 18" OF OF ANOTHER PIPE OR CONDUIT.

PIPE CROSSING DETAIL

NOT TO SCALE

PIPE-XOVG 7/2/98



NOTE: 1-ALL WORK ON THE CARRIER PIPE SUPPORTS SHALL BE PERFORMED PER THE CITY'S FIELD INSTRUCTIONS.
2-LOCATE BORE PITS AS REQUIRED FOR STATE OR FEDERAL HIGHWAY OR RAILROAD, AS APPLICABLE.

PIPE CASING DETAIL

(NOT TO SCALE)

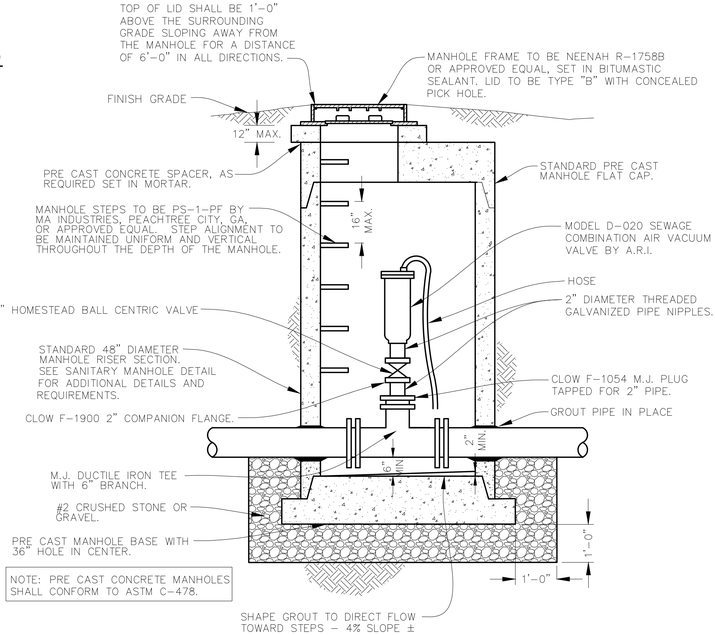
THE CASING PIPE SHALL BE WELDED STEEL PIPE, NEW AND UNUSED MATERIAL, IN ACCORDANCE WITH CURRENT ASTM SPECIFICATION A-139, GRADE B FOR "ELECTRIC FUSION OF WELDED STEEL PIPE", WITH A MINIMUM YIELD OF 35,000 PSI.

THE INSIDE DIAMETER OF THE CASING PIPE SHALL BE AT LEAST SIX (6) INCHES GREATER THAN THE LARGEST DIAMETER OF THE PIPELINE JOINT.

THE MINIMUM WALL THICKNESS OF THE CASING PIPE SHALL BE AS LISTED IN THE FOLLOWING TABLE OR AS SHOWN ON THE APPLICABLE DRAWINGS:

DIAMETER OF CASING	WALL THICKNESS (IN.) UNDER HIGHWAY	UNDER RAILROAD
16" OR SMALLER	0.250	0.312
18"	0.250	0.312
20"	0.312	0.344
24"	0.375	0.438
30" THROUGH 42"	0.500	0.563
48"	0.625	0.625
54"	0.875	0.875
66"	1.00	1.00

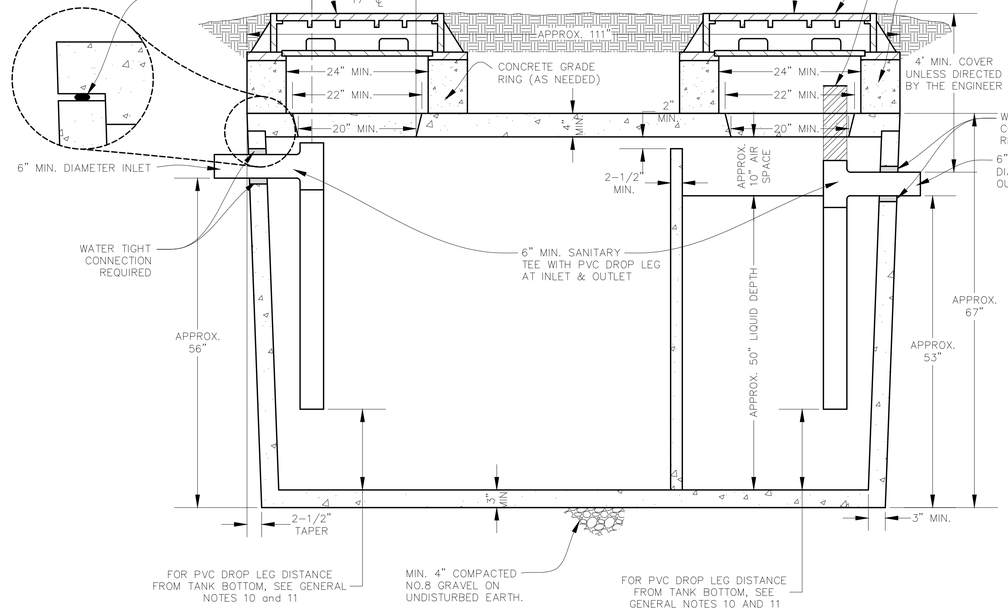
CASING SPECIFICATION



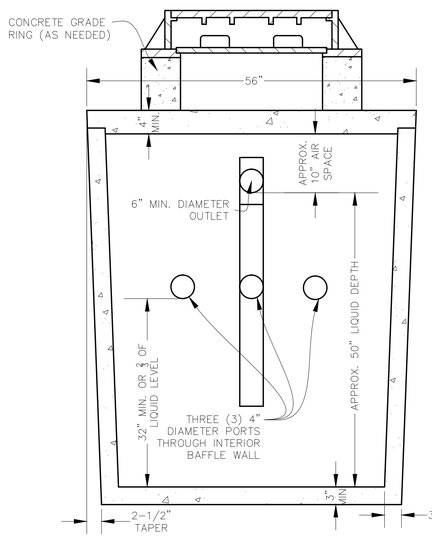
SEWAGE FORCE MAIN AIR RELEASE MANHOLE

NOT TO SCALE (Force mains 4"ø to 12"ø)

AIR-RELDWG 7/2/98



SECTION A-A

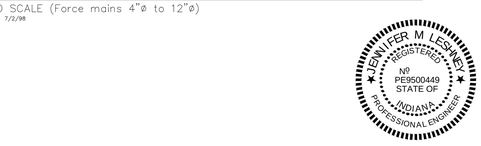


SIDE VIEW

GREASE INTERCEPTOR/OIL AND GRIT SEPARATOR (COMMERCIAL)

NOT TO SCALE

GRSTRP.DWG 6/20/13



REVISED 09/01/2013

PROJECT NAME	PROJECT SHEET NUMBER
	of

CITY OF LAFAYETTE

(800) 382-5544	HOLEY MOLEY
(765) 807-1050	CITY ENGINEER
(765) 807-1800	WATER POLLUTION CONTROL-SEWERS
(765) 807-1700	WATER WORKS
(765) 807-1600	FIRE DEPT.
(765) 807-1210	POLICE DEPT.

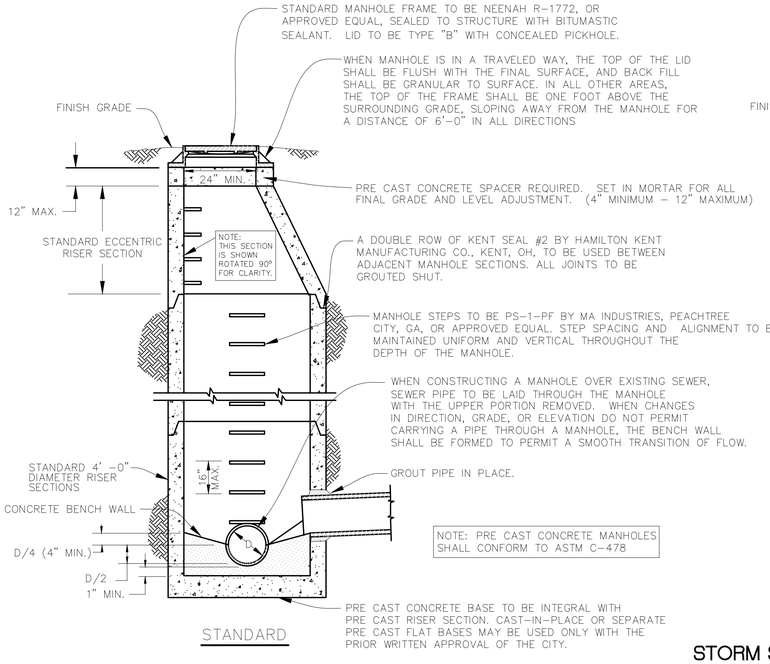
20 NORTH SIXTH STREET
LAFAYETTE, INDIANA 47901

MISCELLANEOUS UTILITY

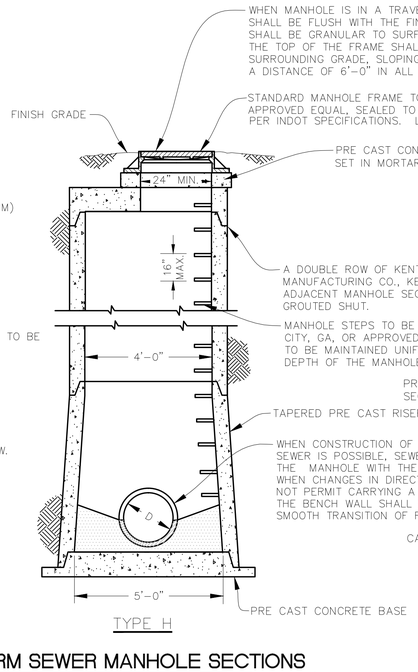
TYPICAL DETAILS AND NOTES

DATE JUNE 2013

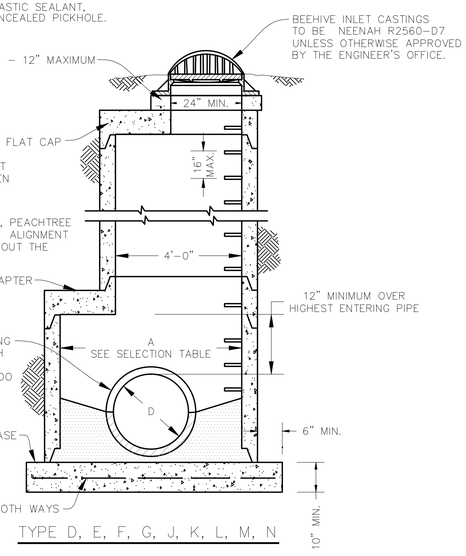
SHEET 9 OF 12



STANDARD



TYPE H



TYPE D, E, F, G, J, K, L, M, N

STORM SEWER MANHOLE SECTIONS

NOT TO SCALE
MH-SECT.DWG 7/2/98

STORM SEWER NOTES

NOTES-S1.DWG 7/2/98

1. STORM SEWER PIPE AND APPURTENANCES SHALL CONFORM TO CITY OF LAFAYETTE SPECIFICATIONS FOR DESIGN AND QUALITY OF CONSTRUCTION, AND CITY OF LAFAYETTE ORDINANCE NO. 89-38, THE LAFAYETTE STORM DRAINAGE AND SEDIMENT CONTROL ORDINANCE", FOR DESIGN AND MATERIALS.
2. CONSTRUCTION PROCEDURES AND MATERIALS SHALL COMPLY WITH APPLICABLE SECTIONS OF THE INDIANA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS LATEST EDITION
3. PIPE AND FITTINGS USED IN STORM SEWER CONSTRUCTION SHALL BE DUCTILE IRON PIPE (AWWA C-151), CONCRETE PIPE (ASTM C-76), PVC PIPE (4"-24" ONLY; ASTM 3034-SDR 35, ASTM F-679, OR ASTM F-794). HOBAS PIPE (24" AND LARGER ONLY; ASTM D3262, D4161, D2412, FIBERGLASS SLEEVE COUPLINGS USING ELASTOMERIC SEALING GASKETS MADE OF EPDM COMPOUND PER ASTM D 4161), ADS N-12 (36") AND ADS N-12HC (42"-48" ONLY) DUAL WALL SINGLE MOLD HDPE PIPE WITH WATER TIGHT INTEGRAL BELL COUPLERS (AASHTO M-294, ASTM F-667). OTHER PIPE AND FITTINGS NOT SPECIFIED HEREIN MAY BE USED ONLY WHEN SPECIFICALLY AUTHORIZED IN WRITING BY THE CITY.
4. ALL STORM SEWERS SHALL BE HIGH PRESSURE WATER JET CLEANED. MAINLINE STORM SEWERS (MANHOLE TO MANHOLE) SHALL BE TELEVISED. LATERAL STORM SEWERS (MANHOLE TO INLET, INLET TO INLET) IN EXCESS OF 40 FT. SHALL ALSO BE TELEVISED. MAINLINE STORM SEWERS AND LATERAL STORM SEWERS THAT ARE 36" DIAMETER OR LESS SHALL BE SUBJECTED TO A DEFLECTION TEST USING A GO-NO-GO MANDREL (95% DIAMETER) WHEN CONSTRUCTED USING FLEXIBLE PIPE CONDUIT MATERIALS. MAINLINE STORM SEWERS AND LATERAL STORM SEWERS THAT ARE GREATER THAN 36" DIAMETER REQUIRE THIRD PARTY TESTING AND CERTIFICATION (DAILY) OF THE BEDDING INSTALLATION WHEN CONSTRUCTED USING FLEXIBLE PIPE CONDUIT MATERIAL. CLEANING, TESTING AND TELEVISING SHALL BE PERFORMED A MINIMUM OF 45 DAYS AFTER INSTALLATION, AND SHALL BE WITNESSED BY THE CITY. ALL COSTS OF CLEANING, TESTING AND TELEVISING ARE TO BE BORNE BY THE CONTRACTOR. A COPY OF THE TV TAPE (VHS FORMAT) SHALL BE RETAINED BY THE CITY.
5. TRENCHES UNDER PAVED AREAS (EXCLUDING SIDEWALKS) SHALL BE BACK FILLED WITH GRANULAR MATERIAL PER INDIANA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS 1999 EDITION SECTION 211 AND COMPACTED IN LIFTS. GRANULAR MATERIAL TO EXTEND FIVE FEET BEYOND THE LIMITS OF THE PAVED AREA WITH A 1:1 SLOPE TO THE BOTTOM OF THE TRENCH.
6. CONFIGURATION OF INLETS IN PRIVATE PARKING OR DRIVING AREAS MAY BE VARIED TO ACCOMMODATE THE DIMENSIONS OF THE CASTINGS. PRIOR WRITTEN APPROVAL OF THE CITY IS REQUIRED.
7. 18" VERTICAL SEPARATION AND 10'-0" HORIZONTAL SEPARATION TO BE MAINTAINED BETWEEN WATER MAINS, HYDRANTS, STORM SEWERS, AND SANITARY SEWERS.
8. SEWER PERMIT AND CITY INSPECTION REQUIRED FOR ALL CONNECTIONS TO STORM OR SANITARY SEWER SYSTEMS SEWER PERMIT REQUIRED ON SITE DURING ANY SEWER CONSTRUCTION
9. ALL TAPS TO CONCRETE PIPE SHALL BE MADE WITH BOOT AND SADDLE CONNECTORS
10. ALL INLETS SHALL BE DEPRESSED 0.1 FT. BELOW PLAN GRADE.
11. ALL SEWER LINES SHALL HAVE 0.1 FT. DROP THROUGH MANHOLES.
12. CASTINGS SHALL BE CENTERED ON OPENING IN STRUCTURES.
13. MINIMUM 4" OPENING REQUIRED ON BACK OF CURB INLET CASTING.
14. TOP OF MANHOLE FRAMES TO BE SET AT PROPOSED YARD OR SIDEWALK GRADE WHEN LOCATED IN FRONT AREA OF LOT OR RIGHT OF WAY.
15. BICYCLE SAFE GRATES REQUIRED IN PAVED AREAS EXCLUDING, PAVED FLOW LINES IN SWALES OR DETENTION AREAS
16. ANIMAL GUARDS SHALL BE PERMANENTLY INSTALLED ON ALL PIPE END SECTIONS 18" OR LARGER IN DIAMETER. GUARDS SHALL HAVE A MAXIMUM CLEAR OPENING OF 4" AND BE REMOVABLE.
17. IF ANY EXISTING FIELD TILE SYSTEMS ARE ENCOUNTERED DURING THE CONSTRUCTION PROCESS THE CONTRACTOR SHALL BE RESPONSIBLE FOR RECONSTRUCTING THE TILE TO ITS ORIGINAL CONDITIONS OR CONNECT IT INTO THE PROPOSED STORM DRAINAGE SYSTEM
18. WHENEVER PROPRIETARY EQUIPMENT IS SPECIFIED OR APPROVED "EQUAL IS IMPLIED ALL, PROPOSALS FOR SUBSTITUTION SHALL BE SUBMITTED TO THE CITY IN WRITING FOR THEIR APPROVAL .

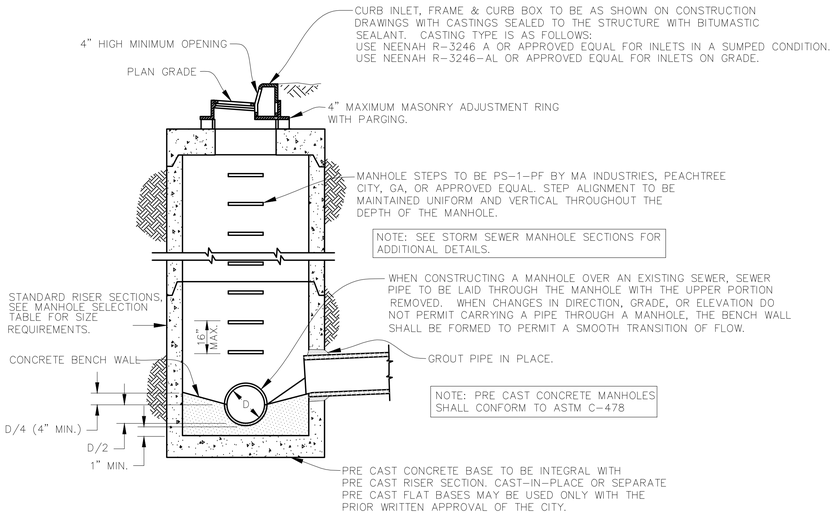
MANHOLE SELECTION TABLE - CIRCULAR

TYPE	PIPE DIAMETER D	RISER DIAMETER A	MAXIMUM PIPE SIZE FOR MAIN LINE	MAXIMUM PIPE SIZE 90° TO MAIN LINE
STANDARD	UP TO 24"	48"	24"	24"
H	24"-36"	--	36"	30"
J	24"-36"	60"	36"	30"
K	36"-48"	72"	48"	36"
L	48"-54"	96"	54"	48"
M	54"-72"	102"	72"	66"
N	72"-84"	108"	84"	72"

MHTABLE.DWG 4/2/98

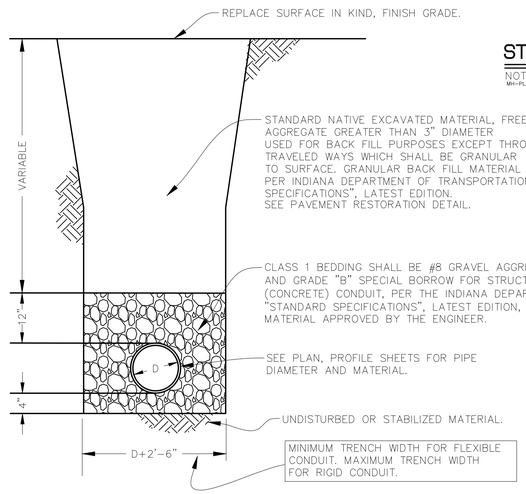
MANHOLE SELECTION TABLE RECTANGULAR

TYPE	PIPE DIAMETER D	WIDTH (MIN) A
STANDARD	UP TO 24"	48"
D	27"-42"	60"
E	48"-60"	78"
F	66"-84"	108"
G	90"-108"	132"



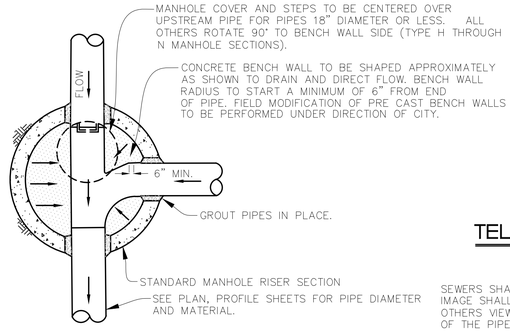
STORM SEWER MANHOLE - INLET

NOT TO SCALE
INLET-S1.DWG 7/2/98



STANDARD BEDDING DETAIL

NOT TO SCALE
BEDDTL.DWG 7/2/98



STORM SEWER MANHOLE PLAN

NOT TO SCALE
MH-PLAN.DWG 7/2/98

TELEVISION INSPECTION CRITERIA

STORM SEWERS

NOTESTV.DWG 7/2/98

SEWERS SHALL BE "FLOODED" BEFORE TELEVISION INSPECTION. THE IMAGE SHALL BE CLEAR ENOUGH TO ENABLE THE CITY REPRESENTATIVE AND OTHERS VIEWING THE MONITOR TO EASILY EVALUATE THE INTERIOR CONDITION OF THE PIPE.

ALL UNACCEPTABLE CONDITIONS FOUND DURING TELEVISION INSPECTION MUST BE CORRECTED BY THE CONTRACTOR AND RETELEVISED.

UNACCEPTABLE CONDITIONS ARE CONDITIONS THAT ADVERSELY EFFECT THE ABILITY OF THE SYSTEM TO FUNCTION AS DESIGNED OR TO BE PROPERLY MAINTAINED AND MAY INCLUDE, BUT ARE NOT LIMITED TO, THE FOLLOWING:

A. PROTRUDING TAPS
B. CRACKED OR FAULTY PIPE
C. MISALIGNED OR DEFORMED PIPE
D. DEBRIS IN LINE
E. INFILTRATION/EXFILTRATION
F. EXCESSIVE GAPS AT JOINTS
G. BELLIES OR SAGS WITH A DEPTH GREATER THAN OR EQUAL TO 10% (OR A MAXIMUM OF 3") OF PIPE DIAMETER AND/OR A LENGTH GREATER THAN 25 FEET

DETAILS AS TO REQUIRED TELEVISION EQUIPMENT AND REQUIRED TELEVISION INSPECTION REPORT ARE AVAILABLE FROM THE CITY ENGINEER'S OFFICE.

JENNIFER M LESLIE REGISTERED Nº PE9500449 STATE OF INDIANA PROFESSIONAL ENGINEER

REVISED 09/01/2013

PROJECT NAME	PROJECT SHEET NUMBER
	of

CITY OF LAFAYETTE

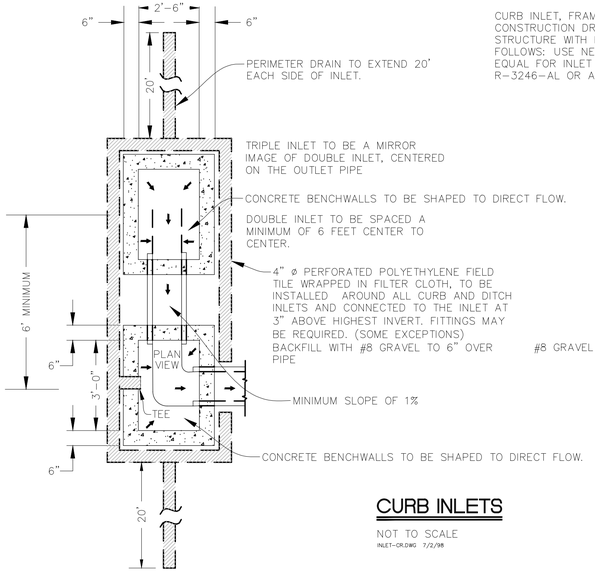
(800) 382-5544	HOLEY MOLEY
(765) 807-1050	CITY ENGINEER
(765) 807-1800	WATER POLLUTION CONTROL-SEWERS
(765) 807-1700	WATER WORKS
(765) 807-1600	FIRE DEPT.
(765) 807-1210	POLICE DEPT.

20 NORTH SIXTH STREET
LAFAYETTE, INDIANA 47901

STORM SEWER
TYPICAL DETAILS AND NOTES

DATE JUNE 2013

SHEET 10 OF 12

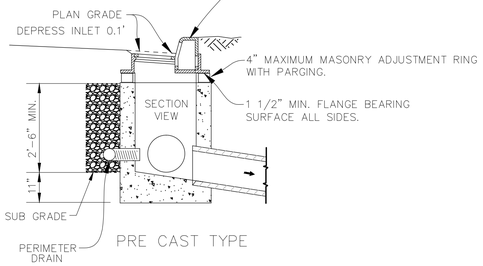


CURB INLETS

NOT TO SCALE

INLET-CR.DWG 7/2/98

CURB INLET, FRAME & CURB BOX TO BE AS SHOWN ON CONSTRUCTION DRAWINGS WITH CASTINGS SEALED TO THE STRUCTURE WITH BITUMASTIC SEALANT. CASTING TYPE IS AS FOLLOWS: USE NEENAH R-3246A, TYPE C GRATE OR APPROVED EQUAL FOR INLET IN SUMPED CONDITION. USE NEENAH R-3246-AL OR APPROVED EQUAL FOR INLETS ON GRADE.



EROSION CONTROL - SEEDING RECOMMENDATIONS

THIS TABLE PROVIDES SEVERAL SEEDING OPTIONS. ADDITIONAL SEED SPECIES AND MIXTURES ARE AVAILABLE COMMERCIALLY. WHEN SELECTING A MIXTURE, CONSIDER SITE CONDITIONS, INCLUDING SOIL PROPERTIES (E.G. SOIL PH AND DRAINAGE), SLOPE ASPECT AND THE TOLERANCE OF EACH SPECIES TO SHADE AND DROUGHT.

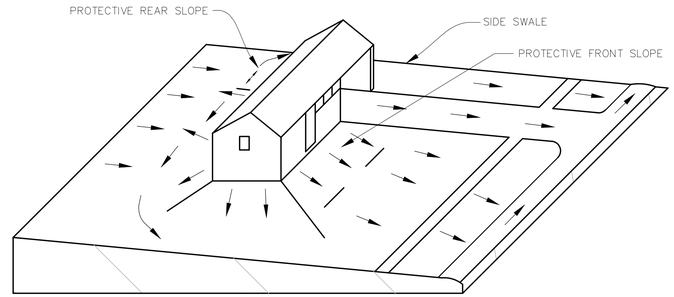
SEED SPECIES AND MIXTURES	RATE PER ACRE	OPTIMUM SOIL PH
OPEN AND DISTURBED AREAS (REMAINING IDLE MORE THAN 1 YR.)		
1. PERENNIAL RYEGRASS	35-50 LBS.	5.6 TO 7.0
+ WHITE OR LADINO CLOVER	1-2 LBS.	
2. KENTUCKY BLUEGRASS	20 LBS.	5.5 TO 7.5
+ SMOOTH BROMEGRASS	10 LBS.	
+ SWITCHGRASS	3 LBS.	
+ TIMOTHY	4 LBS.	
+ PERENNIAL RYEGRASS	10 LBS.	
+ WHITE OR LADINO CLOVER	1-2 LBS.	
3. PERENNIAL RYEGRASS	15-30 LBS.	5.6 TO 7.0
+ TALL FESCUE	15-30 LBS.	
4. TALL FESCUE	35-50 LBS.	5.5 TO 7.5
+ WHITE OR LADINO CLOVER	1-2 LBS.	

* FOR BEST RESULTS: (A) LEGUME SEED SHOULD BE INNOCULATED; (B) SEEDING MIXTURES CONTAINING LEGUMES SHOULD PREFERABLY BE SPRING-SEEDED ALTHOUGH THE GRASS MAY BE FALL-SEEDED AND THE LEGUME FROST-SEEDED (PRACTICE 3.13); AND (C) IF LEGUMES ARE FALL-SEEDED, DO SO EARLY IN FALL.

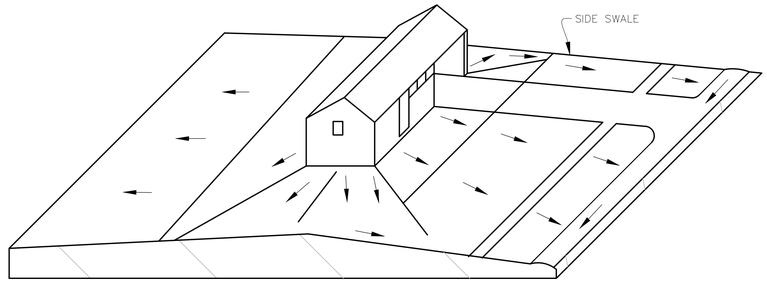
FERTILIZE:
ACCORDING TO SOIL TEST OR USE 600 LBS./ACRE OF 12-12-12 ANALYSIS, OR EQUIVALENT, FERTILIZER.

MULCH:
MULCH SHALL BE STRAW OR HAY. MATERIAL SHOULD BE DRY, UNCHOPPED FREE OF UNDESIRABLE SEEDS AND SPREAD BY HAND OR MACHINE. WOOD FIBER OR CELLULOSE MAY BE USED AND APPLIED WITH A HYDROMULCHER AND USE OF A TACKING AGENT.

STEEP BANKS AND CUTS, LOW MAINTENANCE AREAS (NOT MOWED) AND CHANNELS AND AREAS OF CONCENTRATED FLOW REQUIRE ALTERNATE SEEDING AND MULCH ANCHORING METHODS. REFER TO INDIANA HANDBOOK FOR EROSION CONTROL IN DEVELOPING AREAS.



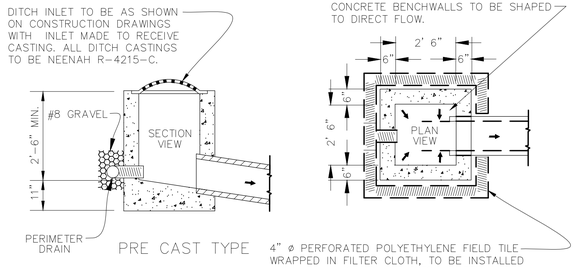
GRADING METHOD FOR LOT WHERE SLOPE IS FROM REAR TO FRONT LOT. DRAINAGE SWALES ARE LOCATED AT REAR AND SIDES OF DWELLING.



GRADING METHOD FOR LOT WHERE DWELLING IS LOCATED ON A RIDGE. DRAINAGE SWALES ARE LOCATED AT SIDE YARDS IN THE AREA OF POSITIVE SLOPES.

LOT DRAINAGE DETAIL (TYPICAL)

NOT TO SCALE

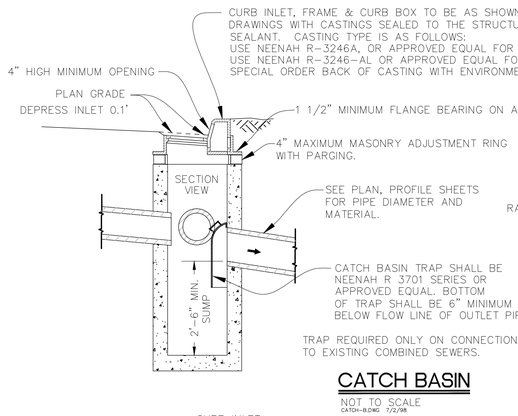


4" ø PERFORATED POLYETHYLENE FIELD TILE WRAPPED IN FILTER CLOTH, TO BE INSTALLED AROUND ALL CURB AND DITCH INLETS AND CONNECTED TO THE INLET AT 3" ABOVE HIGHEST INVERT. FITTINGS MAY BE REQUIRED. (SOME EXCEPTIONS) BACKFILL WITH #8 GRAVEL TO 6" OVER PIPE.

DITCH INLETS

NOT TO SCALE

INLET-DT.DWG 7/2/98

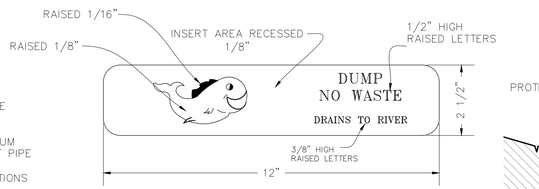


TRAP REQUIRED ONLY ON CONNECTIONS TO EXISTING COMBINED SEWERS.

CATCH BASIN

NOT TO SCALE

CATCH-BI.DWG 7/2/98



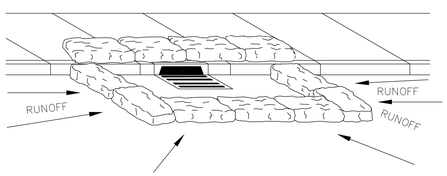
LOGO DETAIL (TOP OF BOX)

NOT TO SCALE

BACK TO BACK LOT SECTION DETAIL (TYPICAL)

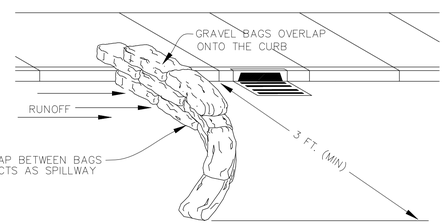
NOT TO SCALE

LOTDRAIN.DWG 7/2/98



PROTECTING A SUMP-POSITION CURB INLET

N.T.S.

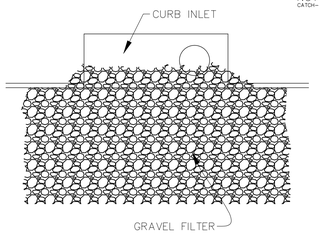


PROTECTING A DOWN SLOPE CURB INLET

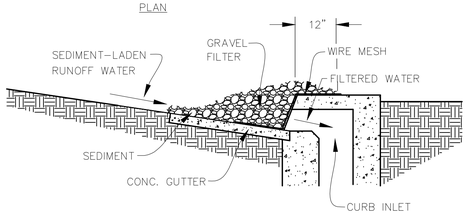
N.T.S.

GRAVEL FILTER BAGS

CURB INLET PROTECTION



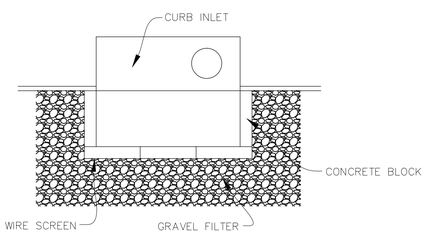
PLAN



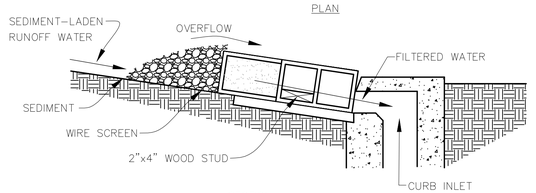
SECTION

GRAVEL FILTER

CURB INLET PROTECTION



PLAN



SECTION

BLOCK AND GRAVEL

CURB INLET PROTECTION

GENERAL NOTES

1. WHENEVER PROPRIETARY EQUIPMENT IS SPECIFIED, "OR APPROVED EQUAL" IS IMPLIED. ALL PROPOSALS FOR SUBSTITUTION SHALL BE SUBMITTED TO THE CITY IN WRITING FOR THEIR APPROVAL.
2. PRIOR WRITTEN APPROVAL OF ENGINEER'S OFFICE FOR USE OF CAST IN PLACE OR MASONRY STRUCTURES.

JENNIFER M LESHNEY REGISTERED Nº PE9500449 STATE OF INDIANA PROFESSIONAL ENGINEER

REVISED: 06/26/2003

PROJECT NAME	PROJECT SHEET NUMBER
	of

CITY OF LAFAYETTE

(800) 382-5544	HOLEY MOLEY
(765) 807-1050	CITY ENGINEER
(765) 807-1800	WATER POLLUTION CONTROL-SEWERS
(765) 807-1700	WATER WORKS
(765) 807-1600	FIRE DEPT.
(765) 807-1210	POLICE DEPT.

20 NORTH SIXTH STREET
LAFAYETTE, INDIANA 47901

STORM SEWER STRUCTURES, DRAINAGE AND EROSION CONTROL TYPICAL DETAILS AND NOTES

DATE MAY 2005

SHEET 11 OF 12

CONSTRUCTION SEQUENCE FOR BUILDING SITE EROSION CONTROL PRACTICE

STEP 1. EVALUATE THE SITE

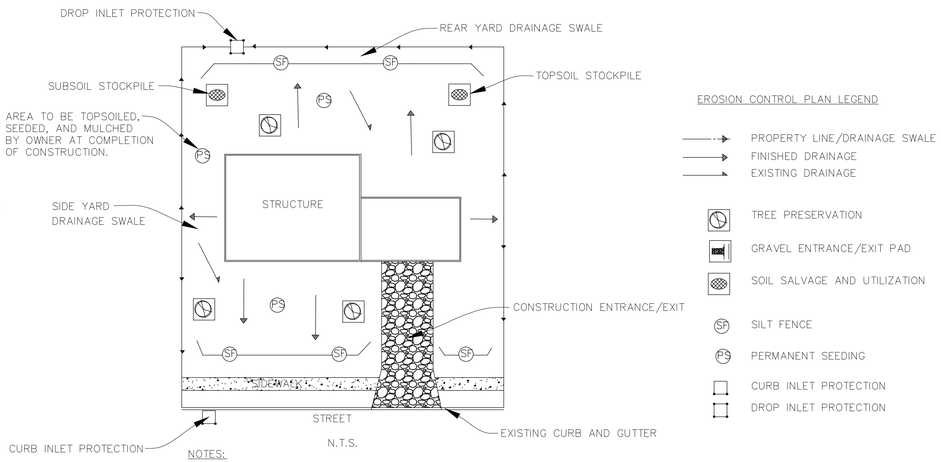
BEFORE CONSTRUCTION, EVALUATE THE ENTIRE SITE, MARKING FOR PROTECTION ANY IMPORTANT TREES AND ASSOCIATED ROOTING ZONES, UNIQUE AREAS TO BE PRESERVED, ON- SITE SEPTIC SYSTEM ABSORPTION FIELDS, AND VEGETATION SUITABLE FOR FILTER STRIPS, ESPECIALLY IN PERIMETER AREAS.

IDENTIFY VEGETATION TO BE SAVED

*SELECT AND IDENTIFY THE TREES, SHRUBS, AND OTHER VEGETATION THAT YOU WANT TO SAVE (SEE VEGETATIVE FILTER STRIPS UNDER STEP 2 BELOW).

PROTECT TREES AND SENSITIVE AREAS

*TO PREVENT ROOT DAMAGE, DO NOT GRADE, BURN, PLACE SOIL PILES, OR PARK VEHICLES NEAR TREES OR IN AREAS MARKED FOR PRESERVATION. *PLACE PLASTIC MESH OR SNOW FENCE BARRIERS AROUND THE TREES'DRIP LINE TO PROTECT THE AREA BELOW THEIR BRANCHES. * PLACE A PHYSICAL BARRIER, SUCH AS PLASTIC FENCING, AROUND THE AREA DESIGNATED FOR A SEPTIC SYSTEM ABSORPTION FIELD (IF APPLICABLE).



EROSION CONTROL PLAN LEGEND

- PROPERTY LINE/DRAINAGE SWALE
- FINISHED DRAINAGE
- EXISTING DRAINAGE
- TREE PRESERVATION
- GRAVEL ENTRANCE/EXIT PAD
- SOIL SALVAGE AND UTILIZATION
- SF SILT FENCE
- PS PERMANENT SEEDING
- CURB INLET PROTECTION
- DROP INLET PROTECTION

NOTES:
1. EROSION/SEDIMENT CONTROL MEASURES MUST BE FUNCTIONAL AND BE MAINTAINED THROUGHOUT CONSTRUCTION.
2. MAINTAIN POSITIVE DRAINAGE AWAY FROM THE STRUCTURE(S).

SAMPLE EROSION/SEDIMENT CONTROL PRACTICE PLAN
TYPICAL STRUCTURE UNDER CONSTRUCTION

STEP 2. INSTALL PERIMETER EROSION AND SEDIMENT CONTROLS

IDENTIFY THE AREAS WHERE SEDIMENT-LADEN RUNOFF COULD LEAVE THE CONSTRUCTION SITE, AND INSTALL PERIMETER CONTROLS TO MINIMIZE THE POTENTIAL FOR OFF-SITE SEDIMENTATION. IT'S IMPORTANT THAT PERIMETER CONTROLS ARE IN PLACE BEFORE ANY OTHER EARTH-MOVING ACTIVITIES BEGIN.

PROTECT DOWN-SLOPE AREAS WITH VEGETATIVE FILTER STRIPS

* ON SLOPES OF LESS THAN 6 PERCENT, PRESERVE A 20 TO 30 FOOT WIDE VEGETATIVE BUFFER STRIP AROUND THE PERIMETER OF THE PROPERTY AND USE IT AS A FILTER STRIP FOR TRAPPING SEDIMENT. *DO NOT MOW FILTER STRIP VEGETATION SHORTER THAN 4 INCHES

WITH SILT FENCE

* USE SILT FENCING ALONG THE PERIMETER OF THE LOT'S DOWN SLOPE SIDE(S) TO TRAP SEDIMENT (SEE SILT FENCE DETAIL)

INSTALL GRAVEL DRIVE

*RESTRICT ALL LOT ACCESS TO THIS DRIVE TO PREVENT VEHICLES FROM TRACKING MUD ONTO ROADWAYS (SEE CONSTRUCTION ENTRANCE DETAIL)

PROTECT STORM SEWER INLETS

*PROTECT NEARBY STORM SEWER CURB INLETS WITH STONE-FILLED OR GRAVEL- FILLED GEOTEXTILE BAGS (SEE CURB INLET PROTECTION DETAIL) OR EQUIVALENT MEASURES BEFORE DISTURBING SOIL.

* PROTECT ON-SITE STORM SEWER DROP INLETS WITH SILT FENCE MATERIAL (SEE CURB INLET PROTECTION DETAIL), STRAW BALES, OR EQUIVALENT MEASURES BEFORE DISTURBING SOIL.

STEP 3. PREPARE THE SITE FOR CONSTRUCTION

PREPARE THE SITE FOR CONSTRUCTION AND FOR INSTALLATION OF UTILITIES. MAKE SURE ALL CONTRACTORS (ESPECIALLY THE EXCAVATING CONTRACTOR) ARE AWARE OF AREAS TO BE PROTECTED.

SALVAGE AND STOCKPILE TOPSOIL/SUBSOIL

* REMOVE TOPSOIL (TYPICALLY THE UPPER 4 TO 6 INCHES OF SOIL MATERIAL) AND STOCKPILE.

* REMOVE SUBSOIL AND STOCKPILE SEPARATELY FROM THE TOPSOIL.

* LOCATE THE STOCKPILES AWAY FROM ANY DOWN SLOPE STREET, DRIVEWAY, STREAM, LAKE, WETLAND, DITCH, OR DRAINAGEWAY.

*IMMEDIATELY AFTER STOCKPILING, TEMPORARY-SEED THE STOCKPILES WITH ANNUAL RYE OR WINTER WHEAT AND /OR PLACE SEDIMENT BARRIERS AROUND THE PERIMETER OF THE PILES.

STEP 4. BUILD THE STRUCTURE(S) AND INSTALL THE UTILITIES

CONSTRUCT THE STRUCTURE AND INSTALL THE UTILITIES; ALSO INSTALL THE SEWAGE DISPOSAL SYSTEM AND DRILL THE WATER WELL (IF APPLICABLE); THEN CONSIDER THE FOLLOWING:

INSTALL DOWN SPOUT EXTENDERS

*ALTHOUGH NOT REQUIRED, DOWN SPOUT EXTENDERS ARE HIGHLY RECOMMENDED AS A MEANS OF PREVENTING LOT EROSION FROM ROOF RUNOFF.

*ADD THE EXTENDERS AS SOON AS THE GUTTERS AND DOWN SPOUTS ARE INSTALLED (SEE TEMPORARY DOWN SPOUT EXTENDERS DETAIL)

*BE SURE THE EXTENDERS HAVE A STABLE OUTLET SUCH AS THE STREET, SIDEWALK, OR A WELL VEGETATED AREA.

STEP 5. MAINTAIN THE CONTROL PRACTICES

MAINTAIN ALL EROSION AND SEDIMENT CONTROL PRACTICES UNTIL CONSTRUCTION IS COMPLETED AND THE LOT IS STABILIZED.

* INSPECT THE CONTROL PRACTICES A MINIMUM OF TWICE A WEEK AND AFTER EACH STORM EVENT, MAKING ANY NEEDED REPAIRS IMMEDIATELY.

* TOWARD THE END OF EACH WORKDAY, SWEEP OR SCRAPE UP ANY SOIL TRACKED ONTO ROADWAYS. DO NOT FLUSH AREAS WITH WATER.

* BY THE END OF THE NEXT WORKDAY AFTER A STORM EVENT, CLEAN UP ANY SOIL WASHED OFF-SITE.

STEP 6. REVEGETATE THE BUILDING SITE

IMMEDIATELY AFTER ALL OUTSIDE CONSTRUCTION ACTIVITIES ARE COMPLETED, STABILIZE THE LOT WITH SOD, SEED, AND/OR MULCH.

REDISTRIBUTE THE STOCKPILED SUBSOIL AND TOPSOIL

* SPREAD THE STOCKPILED SUBSOIL TO ROUGH GRADE.

* SPREAD THE STOCKPILED TOPSOIL TO A DEPTH OF 4 TO 6 INCHES OVER ROUGH-GRADED AREAS.

* FERTILIZE AND LIME ACCORDING TO SOIL TEST RESULTS OR RECOMMENDATIONS OF A SEED SUPPLIER OR A PROFESSIONAL LANDSCAPING CONTRACTOR.

SEED OR SOD BARE AREAS

* CONTRACT LOCAL SEED SUPPLIERS OR PROFESSIONAL LANDSCAPING CONTRACTORS FOR RECOMMENDED SEEDING MIXTURES AND RATES.

* FOLLOW RECOMMENDATIONS OF A PROFESSIONAL LANDSCAPING CONTRACTOR FOR INSTALLATION OF SOD.

* WATER NEWLY SEEDED/SODDED AREAS EVERY DAY OR TWO TO KEEP THE SOIL MOIST. LESS WATERING IS NEEDED ONCE GRASS IS 2 INCHES TALL.

MULCH NEWLY SEEDED AREAS

* SPREAD STRAW MULCH ON NEWLY SEEDED AREAS, USING 1 ½ TO 2 BALES OF STRAW PER 1,000 SQUARE FEET.

* ON FLAT OR GENTLY SLOPING LAND, ANCHOR THE MULCH BY CRIMPING IT 2 TO 4 INCHES INTO THE SOIL. ON STEEP SLOPES, ANCHOR THE MULCH WITH NETTING OR TACKIFIERS. AN ALTERNATIVE TO ANCHORED MULCH WOULD BE THE USE OF EROSION CONTROL BLANKETS.

STEP 7. REMOVE REMAINING TEMPORARY CONTROL MEASURES

ONCE THE SOD AND/OR VEGETATION IS WELL ESTABLISHED, REMOVE ANY REMAINING TEMPORARY EROSION AND SEDIMENT CONTROL PRACTICES, SUCH AS:

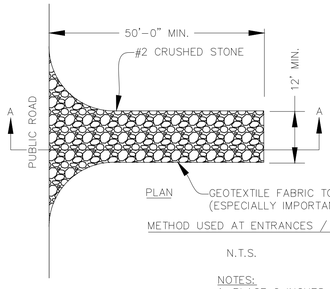
* DOWN SPOUTS EXTENDERS (OR SHORTEN TO OUTLET ONTO THE VEGETATED AREAS, ALLOWING FOR MAXIMUM INFILTRATION.

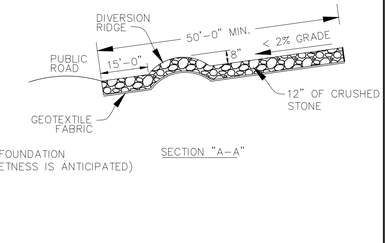
* STORM SEWER INLET PROTECTION MEASURES.

COMPILED FROM INFORMATION PREPARED BY THE DIVISION OF SOIL CONSERVATION, INDIANA DEPARTMENT OF NATURAL RESOURCES

EROSION CONTROL NOTES:

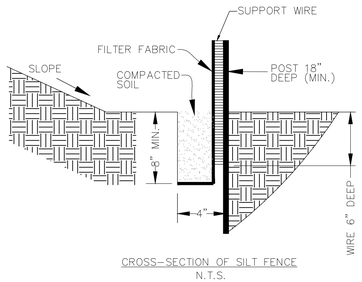
1. CONTRACTOR SHALL INSTALL ALL REQUIRED SILT FENCES, SILT TRAPS, TREE PROTECTION AND INLET PROTECTION FOR EXISTING INLETS PRIOR TO THE START OF ANY EARTH MOVING OR STRIPPING.
2. CONTRACTOR SHALL INSTALL A GRAVEL CONSTRUCTION ENTRANCE OR SOME OTHER DEVICE PRIOR TO THE START OF EARTHWORK AS NECESSARY TO PREVENT SOIL FROM BEING TRACKED OR WASHED INTO EXISTING ROADWAYS.
3. LAND ALTERATIONS WHICH STRIP THE LAND OF VEGETATION, INCLUDING REGRADING, SHALL BE DONE IN A WAY THAT WILL MINIMIZE EROSION. WHENEVER FEASIBLE, NATURAL VEGETATION SHALL BE RETAINED AND PROTECTED. AS GRADING IS DONE, INSTALL SILT TRAPS, SILT FENCES, SLOPE DRAINS, TEMPORARY DIVERSIONS AND OTHER RUNOFF CONTROL MEASURES AT APPROPRIATE LOCATIONS TO KEEP SEDIMENT CONTAINED ON SITE.
4. ALL DISTURBED AREAS SHALL BE SEEDED AND STRAW MULCHED AS SHOWN ON THE PLANS IMMEDIATELY AFTER COMPLETION OF GROUND DISTURBING ACTIVITY, FOR EACH PHASE AS THE DIFFERENT PHASES OF THE SITE ARE CONSTRUCTED.
5. PERMANENT AND FINAL VEGETATION OR STRUCTURAL EROSION CONTROL DEVICES SHALL BE INSTALLED AS SOON AS PRACTICAL.
6. THE DURATION OF TIME WHICH AN AREA REMAINS EXPOSED SHALL BE KEPT TO A PRACTICAL MINIMUM DEPENDING UPON THE WEATHER. IF CONSTRUCTION ACTIVITY IS TO CEASE FOR MORE THAN TWO WEEKS, THE DISTURBED AREAS SHALL BE TEMPORARILY SEEDED.
7. ALL STORM SEWER INLET PROTECTION DEVICES SHALL BE PUT IN PLACE AT THE TIME EACH INLET IS CONSTRUCTED.
8. CONTRACTOR SHALL MAINTAIN EROSION CONTROL MEASURES AND DEVICES DURING CONSTRUCTION AND UNTIL SILTATION OF THE STREETS AND STORM SEWERS WILL NO LONGER OCCUR.
9. ONCE ON-SITE EROSION AND SILTATION OF THE STREETS AND STORM SEWERS WILL NO LONGER OCCUR, THE CONTRACTOR SHALL REMOVE AND DISPOSE OF THE TEMPORARY EROSION CONTROL DEVICES.
10. THESE GENERAL PROCEDURES MAY NOT COVER ALL SITUATIONS. REFER TO EROSION CONTROL PLANS FOR SPECIFIC NOTES AND ADDITIONAL DETAILS.
11. EROSION CONTROL SHALL COMPLY WITH INDIANA 327 IAC AND RULE #5, AND INDIANA HANDBOOK FOR EROSION CONTROL IN DEVELOPING AREAS.
12. THE CITY ENGINEER HAS THE AUTHORITY TO REQUEST ADDITIONAL EROSION CONTROL MEASURES OR AMEND EROSION CONTROL PLANS SUBJECT TO ACTUAL SITE CONDITIONS.
13. THE CONTRACTOR MAY SUBSTITUTE DIFFERENT EROSION CONTROL DEVICES FOR THOSE SHOWN ON THE DRAWINGS SO LONG AS THE SUBSTITUTED DEVICES PERFORMS AS REQUIRED BY INDIANA 327 IAC AND "RULE 5".
14. THE CONTRACTOR IS TO INSTALL, MONITOR AND MAINTAIN ALL REQUIRED EROSION CONTROL DEVICES IN ACCORDANCE WITH THE APPLICABLE PROVISIONS OF THE "INDIANA HANDBOOK FOR EROSION CONTROL IN DEVELOPING AREAS" LATEST EDITION, WHICH IS HEREBY INCORPORATED INTO THESE STANDARDS BY REFERENCE AND MADE A PART THEREOF.
15.



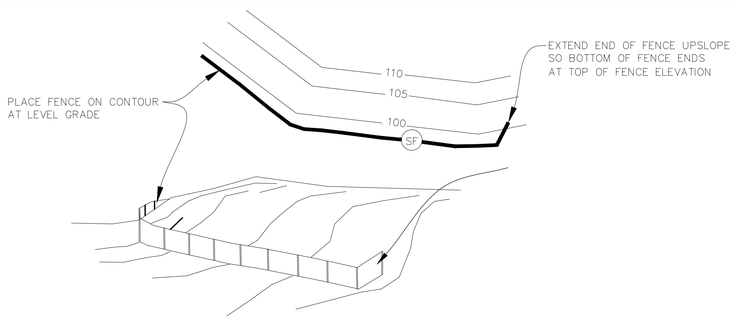


NOTES:
1. PLACE 6 INCHES OF COARSE AGGREGATE (INDOT CA NO. 2) OVER A STABLE SUBGRADE.
2. CONSTRUCT THE DRIVE AT LEAST 12 FEET WIDE AND 50 FEET LONG OR THE DISTANCE TO THE FOUNDATION.
3. ADD STONE AS NEEDED TO MAINTAIN 6 INCHES OF CLEAN DEPTH.
4. TO IMPROVE STABILITY OR IF WET CONDITIONS ARE ANTICIPATED, PLACE GEOTEXTILE FABRIC ON THE GRADED FOUNDATION.

CONSTRUCTION GRAVEL ENTRANCE



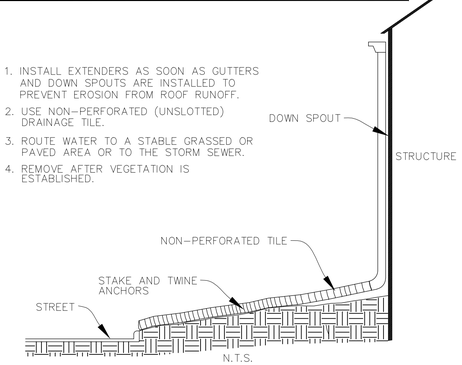
CROSS-SECTION OF SILT FENCE
N.T.S.



TYPICAL LAYOUT FOR SILT FENCE
N.T.S.

SILT FENCE

1. INSTALL EXTENDERS AS SOON AS GUTTERS AND DOWN SPOUTS ARE INSTALLED TO PREVENT EROSION FROM ROOF RUNOFF.
2. USE NON-PERFORATED (UNSLOTTED) DRAINAGE TILE.
3. ROUTE WATER TO A STABLE GRASSED OR PAVED AREA OR TO THE STORM SEWER.
4. REMOVE AFTER VEGETATION IS ESTABLISHED.



TEMPORARY DOWN SPOUT EXTENDERS

REVISED 09/01/2013

PROJECT NAME	PROJECT SHEET NUMBER
	of

CITY OF LAFAYETTE

(800) 382-5544	HOLEY MOLEY
(765) 807-1050	CITY ENGINEER
(765) 807-1800	WATER POLLUTION CONTROL-SEWERS
(765) 807-1700	WATER WORKS
(765) 807-1600	FIRE DEPT.
(765) 807-1210	POLICE DEPT.

20 NORTH SIXTH STREET
LAFAYETTE, INDIANA 47901

EROSION CONTROL
TYPICAL DETAILS AND NOTES

DATE MAY 2005

SHEET 12 OF 12

JENNIFER M LESNEY REGISTERED Nº PE9500449 STATE OF INDIANA PROFESSIONAL ENGINEER