

PINELLAS COUNTY

MINIMUM TESTING FREQUENCY REQUIREMENTS

PREPARED BY :

Pinellas County Department of Public Works and Utilities

APPROVED BY :

Pinellas County Board of County Commissioners on

December 20, 1983

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Minimum Testing Frequency Requirements

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PINELLAS COUNTY
MINIMUM TESTING FREQUENCY REQUIREMENTS

12/20/83

SPECIFICATIONS				LOCATIONS
DEFINITIONS		TEST	MINIMUM TEST	RECOMMENDED
	TEST	IDENTIFICATIONS	REQUIREMENTS	MINIMUM FREQUENCY
SYM.	BACKFILL OVER PIPELINES*			(Also see Plan & Footnotes)
<input type="checkbox"/>	Field Density within road right-of-way	AASHTO T-191 T-238	100% of AASHTO T-99	1 test per 2' vertical (compacted) in a staggered pattern per 300 lf or part thereof of uninterrupted run of pipe beginning at 2' over top of pipe for pipe less than 12" diameter; at top of pipe for pipe 12" diameter to 24" diameter; at spring line of pipe for pipe with diameter greater than 24".
	Moisture Density (Proctor)	AASHTO T-99		One per uniform material.
<input type="radio"/>	Field Density for Access. Structures within right-of-way	AASHTO T-191 T-238	100% of AASHTO T-99	1 test per 2' vertical (compacted) in a staggered pattern beginning within 3' of the structure beginning at 2' over top of pipe for pipe less than 12" diameter; at top of pipe for pipe 12" diameter to 24" diameter; at spring line of pipe for pipe with diameter grater than 24".
	Moisture Density (Proctor)	AASHTO T-99		One per uniform material.
<input type="triangle"/>	Field Density outside of road within right-of-way	AASHTO T-191 T-238	100% of AASHTO T-99	1 test per 2' vertical (compacted) in a staggered pattern per uninterrupted run of pipe with a maximum of 400 lf or part thereof per test beginning at 2' over top of pipe for pipe less than 12" diameter; at top of pipe for pipe 12" diameter to 24" diameter; at spring line of pipe for pipe with diameter grater than 24".
	Moisture Density (Proctor)	AASHTO T-99		One per uniform material.
<input type="radio"/>	Field Density outside of road right-of-way	AASHTO T-191 T-238	100% of AASHTO T-99	1 test per 2' vertical in a staggered pattern per 300 lf of pipe; one test minimum within the easement and set backs for future structures (houses, etc.)

*excludes underdrain pipes

SYM.	DEFINITIONS TEST	SPECIFICATIONS		LOCATIONS RECOMMENDED MINIMUM FREQUENCY
		TEST IDENTIFICATIONS	MINIMUM TEST REQUIREMENTS	
	<u>BACKFILL OVER TRENCHES</u>			
	Moisture Density (Proctor)	AASHTO T-99		One per uniform material.
	<u>ROADWAY EMBANKMENT</u>			
■	Field Density	AASHTO T-191 T-238	100% of AASHTO T-99	1 test every 300 lf or part thereof with no fewer than 2 per street. 1 test per 2' vertical in a staggered pattern.
	Moisture Density (Proctor)	AASHTO T-99		1 per uniform material or per soil type per roadway.
	<u>STABILIZED SUBGRADE</u>			
◐	Florida Bearing Value	FDOT	Per Plans	Centerline: one test every 300 lf or part thereof in staggered pattern and at all changes in soil classification. No less than 1 per street. Curbline: one per 300 lf each side of road, as applicable.
◑	Limerock Bearing Ratio (alternate)	FDOT	Per Plans	Centerline: 400' intervals or part thereof on alternate sides of centerline and at all changes in soil classification. No less than 1 per street. Curbline: one per 400 lf each side of road, as applicable.
■	Thickness		Per Plans (1/2 " allowable undertolerance)	300' intervals or part thereof on alternate side of centerline. No less than 1 per street.
●	Field Density	AASHTO T-180 T-191 T-238	98% of AASHTO T-180	Roadway: 1 test every 300 lf or part thereof in a staggered pattern. Minimum one per street. Curbline: one test every 300 lf along each side of road.
	Moisture Density (Proctor)	AASHTO T-180		One per uniform material.
□	<u>LIMEROCK BASE COURSE</u>			
	Field Density	AASHTO T-191 T-191 T-238	98% of AASHTO T-180	1 test every 300 lf or part thereof per lift. Shall not be taken at same location as tests for stabilized subgrade density. Minimum one per street.

SPECIFICATIONS				LOCATIONS RECOMMENDED MINIMUM FREQUENCY
DEFINITIONS TEST	TEST IDENTIFICATIONS	MINIMUM TEST REQUIREMENTS		
SYM.	LIMEROCK BASE COURSE (continued)			
	Thickness (See Special Conditions No. 2)	Per test lab.	Per Plans (1/2 " allowable undertolerance)	1 test every 300 lf or part thereof in staggered pattern. 3 tests minimum per street.
	Moisture Density (Proctor)	AASHTO T-180		For each uniform material.
QUALITY				
A)	Gradation	AASHTO T-27	Section 915 Section 911 DOT Manual	1 each per uniform material. (waived if certification provided from testing laboratory.)
B)	Carbonates	FDOT	Minimum % Carbonates	
C)	Liquid Limit	AASHTO T-89	Maximum 35	
D)	Plasticity Index	AASHTO T-90	Non-plastic	
SOIL CEMENT BASE/CEMENT-TREATED LIMEROCK BASE				
Design	Per laboratory (Portland Cement Assoc. or FDOT)	Applicable AASHTO & PCA Standards		Per each uniform material. Pinellas County to receive copy of design prior to construction of base.
Field Testing				
	Field Density	AASHTO T-191 T-238	95% of AASHTO T-134	1 per 300 lf or part thereof. Minimum one per street.
	Proctor	AASHTO T-134	N/A	1 per uniform material
	Compressive Strength	ASTM D-1633	300 psi minimum 7 day	1 set of 3 compressive strength pills per 500 lf or part thereof.
	Thickness Determination (compacted)(See Special Conditions No. 2)	Current FDOT Sections	Per Plans (1/2 " allowable undertolerance) 1" allowable overtolerance)	One every 300 lf or part thereof. Thickness determination required prior to paving at density test locations. Thickness determination made no earlier than 3rd day after base construction to allow the base to "set up".

SYH.	DEFINITIONS TEST	SPECIFICATIONS		LOCATIONS RECOMMENDED MINIMUM FREQUENCY
		TEST IDENTIFICATIONS	MINIMUM TEST REQUIREMENTS	
	SOIL CEMENT BASE/CEMENT-TREATED LIMEROCK BASE (continued)			
●	Cement application rate	Blanket method or area measurement		Blanket method - 1 per tanker. Area method - 1 per tanker.

	CONCRETE (non-structural) (Ex: Curb and Sidewalk)			
☆	Compressive Strength	ASTM C-31 ASTM C-39	Per plane. 3000 psi minimum at 28 days	1 Set of 3 cylinders per 1000 lf of curb per each side of road. 1 set of 3 cylinders per 1000 lf of sidewalk per each side of road. Cylinders to be made and tested by independent testing laboratories or one daily.

	Slump	AASHTO T-23 T-119	Per specs	1 per set of cylinders


	ASPHALTIC CONCRETE			
	Marshall Field Stability Gradation Voids in min. agg. (%) Voids filled/ A.C. (%) Total air voids (%) Effective A/C cont.	Current Pinellas County Specifications	per Pinellas Co. spec per Pinellas Co. spec per Pinellas Co. spec per Pinellas Co. spec per Pinellas Co. spec per Pinellas Co. spec	1 per day or 1 per 500 tons of asphaltic concrete.

	Field Air Temperature	Current Pinellas County Specifications	Above 40°F. and rising	at time of placement.

	Field Asphalt Temperature	Current Pinellas County Specifications	Current Pinellas County Specifications	Each fifth truck.

●	Field Density	ASTM D-1188 or ASTM 2922	Current Pinellas County Specifications	1 test per 500 lf per screed width per applied asphalt.

⌒	Thickness (during paving)	per lab	Current Pinellas County Specifications	At the time of placing average of 3 thickness determinations per width of screed per 100 lf. Performed prior to compaction in staggered pattern.

DEFINITIONS	SPECIFICATIONS		LOCATIONS RECOMMENDED MINIMUM FREQUENCY
	TEST IDENTIFICATIONS	MINIMUM TEST REQUIREMENTS	
SYN. ASPHALTIC CONCRETE (continued)			
 Thickness ** (After paved)(See Special Condition No. 2)	Core borings	Per plans and specs	Minimum 3 per block or every 300 if on staggered pattern. Asphalt cores only, if base cored prior to laying asphaltic concrete wearing course.

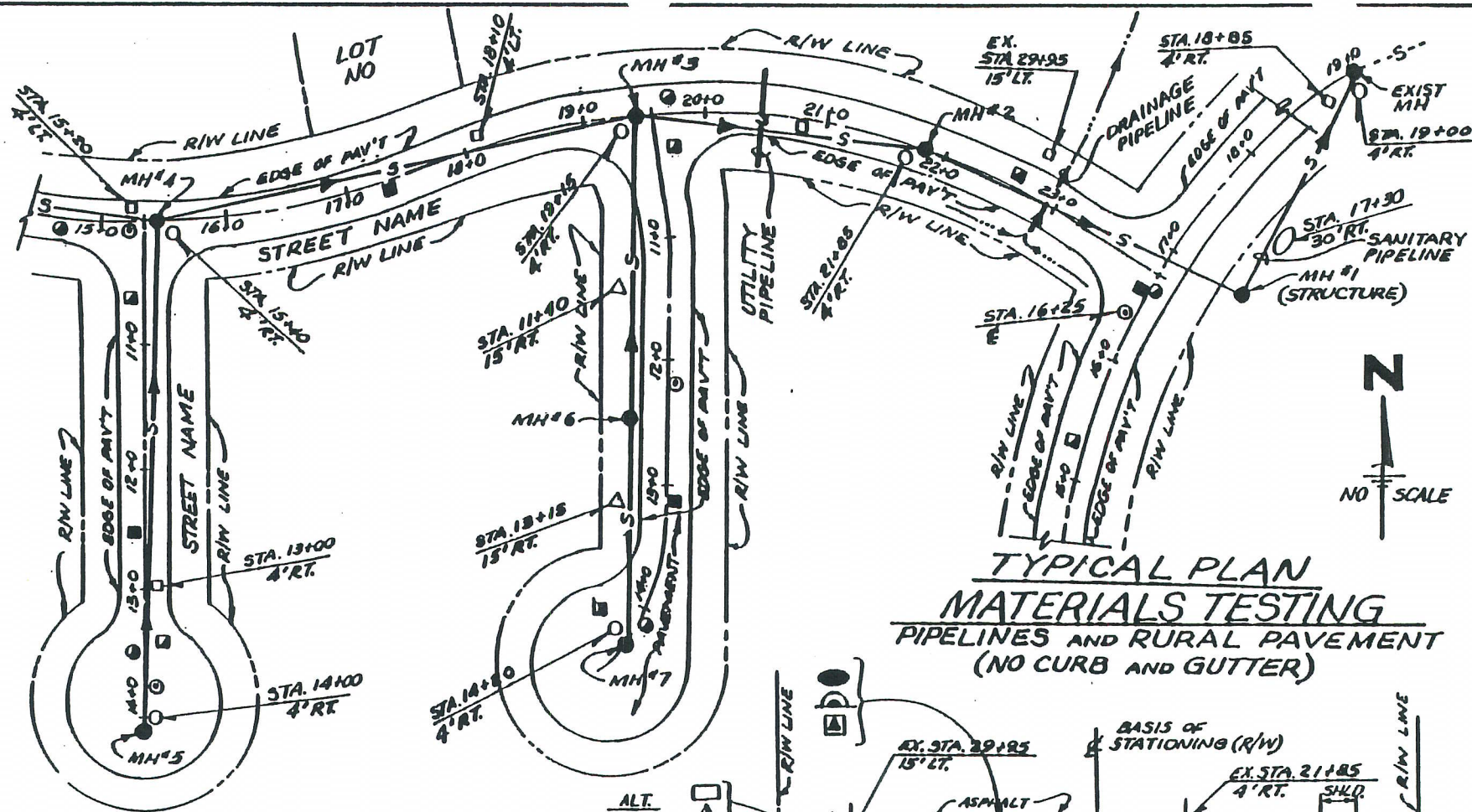
** required other thickness not recorded during construction

SPECIAL CONDITIONS

1. Minimum Testing Frequency Requirements:

- A. Test identifications refer to latest edition of each individual specification. Tolerances are to be per test identifications.
- B. Refer to Typical plans for additional data.
- C. Staggered pattern is defined as:
 - (1) Transverse: Within four feet, more or less (4' \pm) from curb, centerline of pavement, centerline of pipeline, or edge of pavement.
 - (2) Longitudinal: Within fifty feet, more or less (50' \pm) of the spacing denoted in recommended minimum frequency column. See attached sketch.

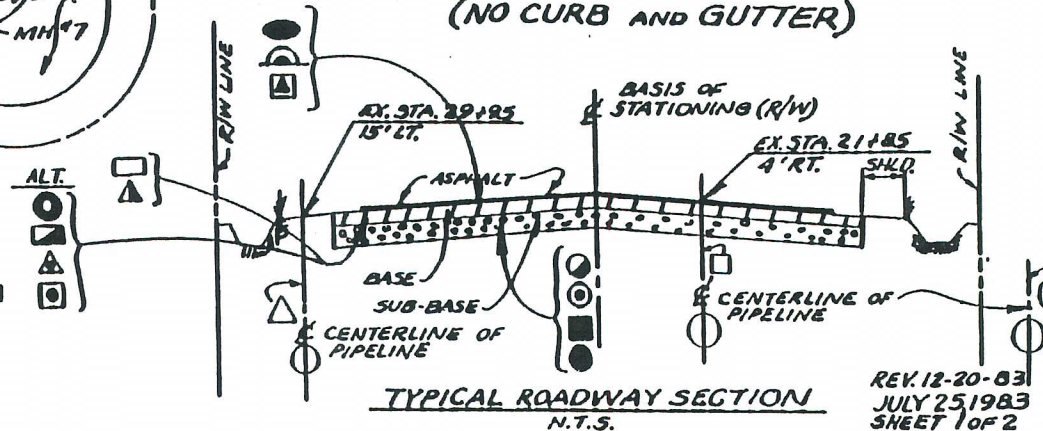
- 2. Combined thickness of base and asphalt shall equal or exceed combined total thicknesses shown on plans and asphalt thickness shall not be less than minimum shown on plans.



TYPICAL PLAN **MATERIALS TESTING** **PIPELINES AND RURAL PAVEMENT** **(NO CURB AND GUTTER)**

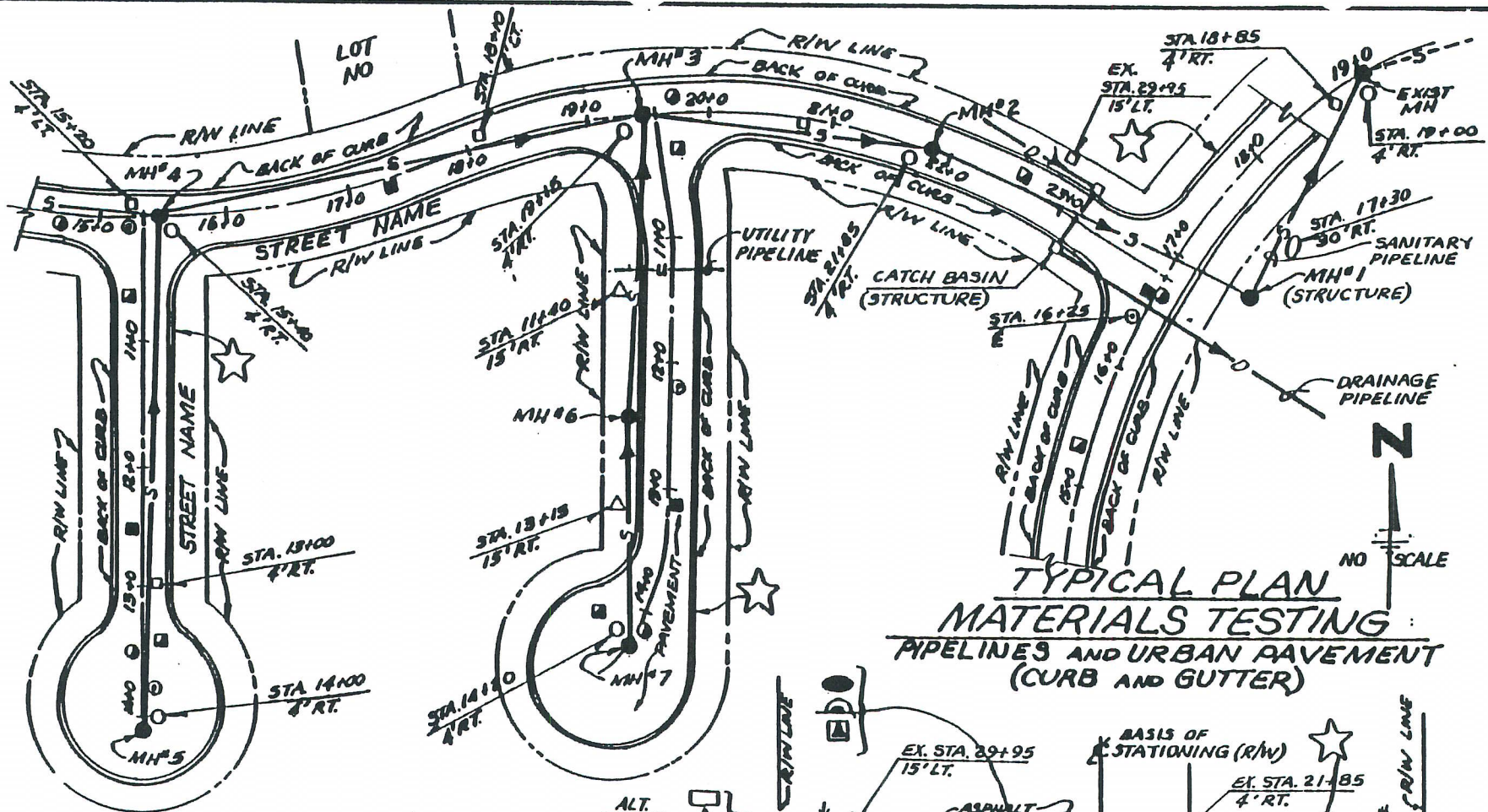
NOTES:

1. Offsets are to be radial to a curve or perpendicular to a tangent.
2. When pipeline trench is beyond back of curb use centerline stationing and offset distance, left or right of centerline.
3. All test locations are to be based on centerline stationing with offsets left or right.
4. Refer to test definitions for all of the symbol identifications.



TYPICAL ROADWAY SECTION **N.T.S.**

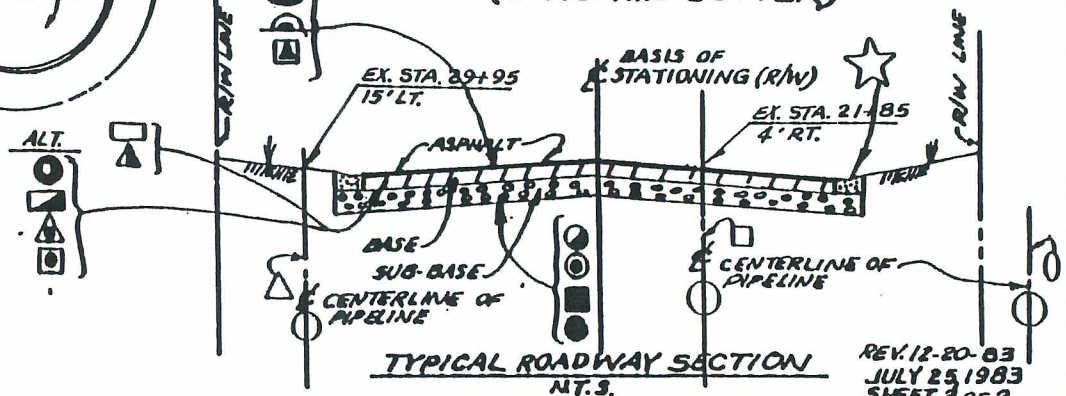
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 JULY 25, 1983
 SHEET 1 OF 2



TYPICAL PLAN MATERIALS TESTING PIPELINES AND URBAN PAVEMENT (CURB AND GUTTER)

NOTES:

1. Offsets are to be radial to a curve or perpendicular to a tangent.
2. When pipeline trench is beyond back of curb use centerline stationing and offset distance, left or right of centerline.
3. All test locations are to be based on centerline stationing with offsets left or right.
4. Refer to test definitions for all of the symbol identifications.



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