STREET IMPROVEMENTS FOR

MEMORY LANE TWIN HOMES ADDITION

MEMORY LANE

FROM THE EAST LINE OF SMITH TO AND INCLUDING CUL-DE-SAC

PROJECT NO.

472-76-245-81363 000-000-001

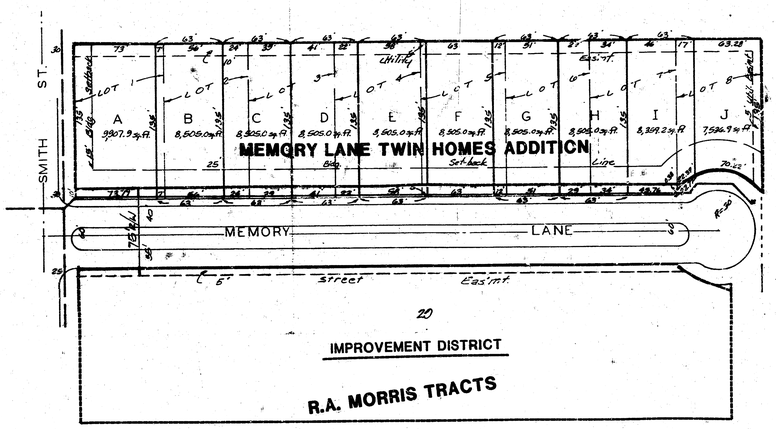
CITY OF WICHITA, KS.

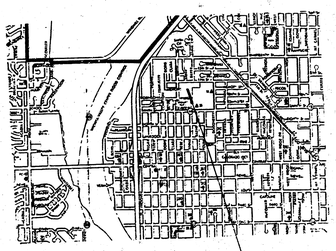
MICHAEL E. LINDEBAK, CITY ENGINEER

ENGINEER CB
SEC / FILE
PLANS
CHECKED
ZIP

N

1"=60'





PROJECT VICINITY

INDEX

1. Title and Location Map
2. Typical Sections
3-4. Street Plans
5-7. Earthwork Sections

GENERAL NOTES

1. The Contractor shall be responsible for preserving property irons. The Contractor will be required to re-establish any property irons which are damaged or destroyed by his construction operations. Such irons shall be re-established by a licensed land surveyor or a licensed professional engineer in accordance with state laws.

2. Utility service lines, poles, valve boxes, meters, and etcetera are to be adjusted as necessary by others prior to construction unless the plans specifically call for their adjustment by the contractor. Existing utilities and their location, as shown on the plans, represent the best information obtainable for design. The contractor will be required to work around existing utilities within the right-of-way which do not conflict with proposed construction.

3. A saw cut of at least one-half the depth of existing surface courses or one-fourth the depth of the existing total pavement thickness shall be provided at locations where proposed construction abuts an existing surface course or pavement for which partial removal of that surface or pavement is required. Sawed joint to facilitate removal within three (3) feet of existing joints will not be permitted and for such instances the limits of removal shall extend to the existing joint. Such saw cuts will not be paid for directly and this cost shall be considered as subsidiary to the removal of the surface or pavement.

4. No more than 10 drives 20 feet in width, or equivalent combinations thereof, are to be constructed with this project.

5. The contractor shall adjust Water Valve Boxes and Fire Hydrants as directed by the Engineer at the price bid for said adjustments. The Water Department shall field locate water valves one time during construction when requested by the contractor. It shall be the contractor's responsibility to preserve such field locations during the construction process. Water valves, water valve boxes or fire hydrants damaged during construction shall be repaired by the contractor at his own expense.

6. Contractor shall coordinate paving operations with water main extension, project no. 448-76-245-88111-000-000-001.

7. All trees within right-of-way shall be removed, except those noted on the plans to be saved.

THOMAS CHARLES BAUGHMAN
LICENSED
9221
REGISTERED PROFESSIONAL ENGINEER

BAUGHMAN COMPANY, P.A.
SURVEYING & ENGINEERING
316 262-7271 • 330 LAURA • WICHITA, KANSAS 67211

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GENERAL NOTES

1) THE ASPHALTIC CONCRETE PAVEMENT BETWEEN THE COMBINED CURB AND GUTTER SHALL BE PAID AS SQUARE YARDS OF 7" ASPHALTIC CONCRETE (5" BITUMINOUS BASE).

2) THE BITUMINOUS BASE UNDER AND BEHIND THE COMBINED CURB AND GUTTER SHALL BE PAID AS SQUARE YARDS OF 2 1/2" BITUMINOUS BASE.

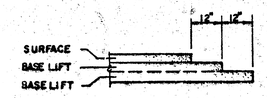
3) A TACK COAT OF EMULSIFIED ASPHALT (SC-1H OR CSS-1H) SHALL BE APPLIED AT AN APPROXIMATE RATE OF 0.05 GALLONS PER SQUARE YARD BETWEEN EACH LIFT OF ASPHALTIC MATERIAL.

4) BITUMINOUS BASE AND ASPHALTIC CONCRETE WEARING SURFACE SHALL BE PLACED WITH A LAYDOWN MACHINE HAVING AUTOMATIC CONTROLS FOR LINE AND GRADE.

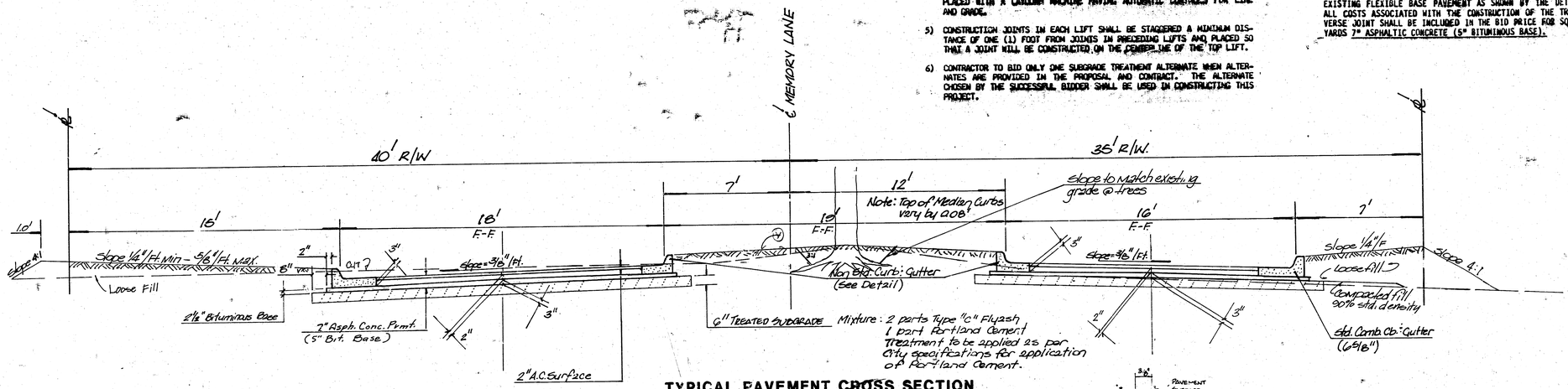
5) CONSTRUCTION JOINTS IN EACH LIFT SHALL BE STAGGERED A MINIMUM DISTANCE OF ONE (1) FOOT FROM JOINTS IN PRECEDING LIFTS AND PLACED SO THAT A JOINT WILL BE CONSTRUCTED ON THE CENTERLINE OF THE TOP LIFT.

6) CONTRACTOR TO BID ONLY ONE SUBGRADE TREATMENT ALTERNATE WHEN ALTERNATES ARE PROVIDED IN THE PROPOSAL AND CONTRACT. THE ALTERNATE CHOSEN BY THE SUCCESSFUL BIDDER SHALL BE USED IN CONSTRUCTING THIS PROJECT.

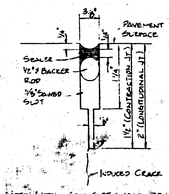
TRANSVERSE CONSTRUCTION JOINTS



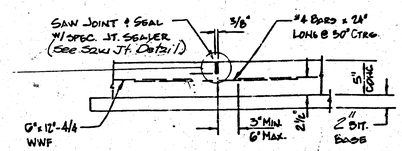
TRANSVERSE CONSTRUCTION JOINTS SHALL BE CONSTRUCTED IN FLEXIBLE BASE PAVEMENTS AT LOCATIONS WHERE PAVEMENT JOINS EXISTING FLEXIBLE BASE PAVEMENT AS SHOWN BY THE DETAIL. ALL COSTS ASSOCIATED WITH THE CONSTRUCTION OF THE TRANSVERSE JOINT SHALL BE INCLUDED IN THE BID PRICE FOR SQUARE YARDS 7" ASPHALTIC CONCRETE (5" BITUMINOUS BASE).



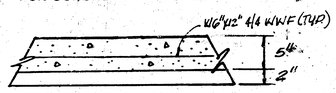
TYPICAL PAVEMENT CROSS SECTION



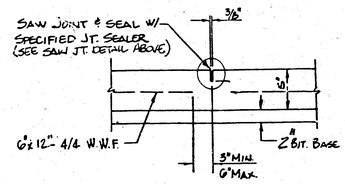
SAW JOINT DETAIL



LONGITUDINAL SAWED JOINT
FOR CONCRETE VALLEY GUTTER

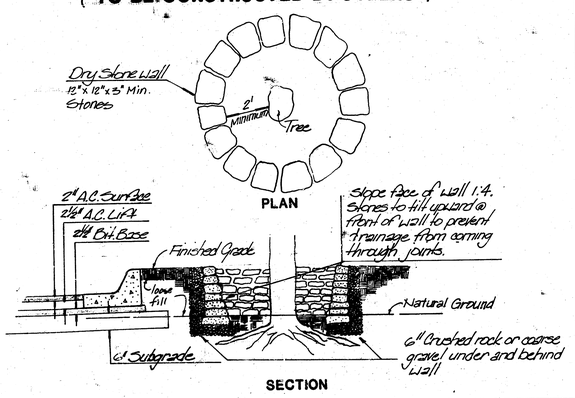


7" REINFORCED VALLEY GUTTER PAVEMENT
5" REINFORCED CONCRETE W/ 2" BIT. BASE

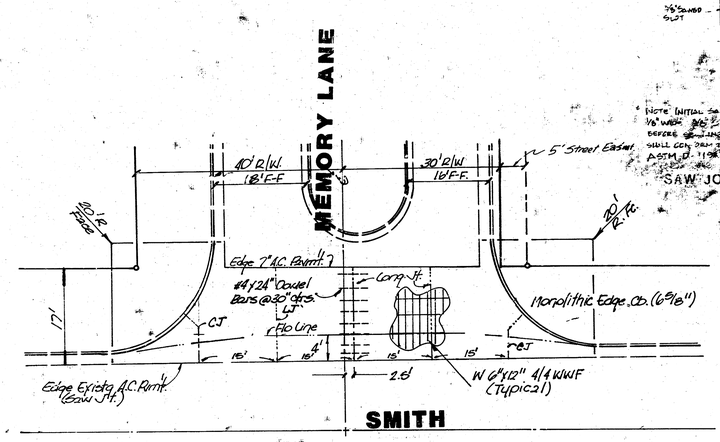


CONTRACTION JOINT
FOR CONCRETE VALLEY GUTTER

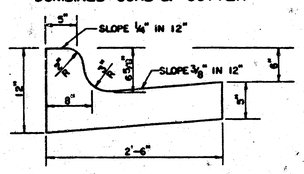
FULL TREE WELL DETAIL
(TO BE CONSTRUCTED BY OTHERS)

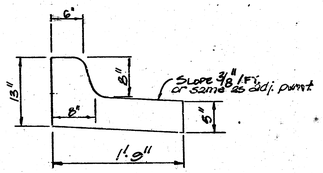


SECTION



VALLEY GUTTER DETAIL
(No Scale)





NON-STANDARD CURB AND GUTTER

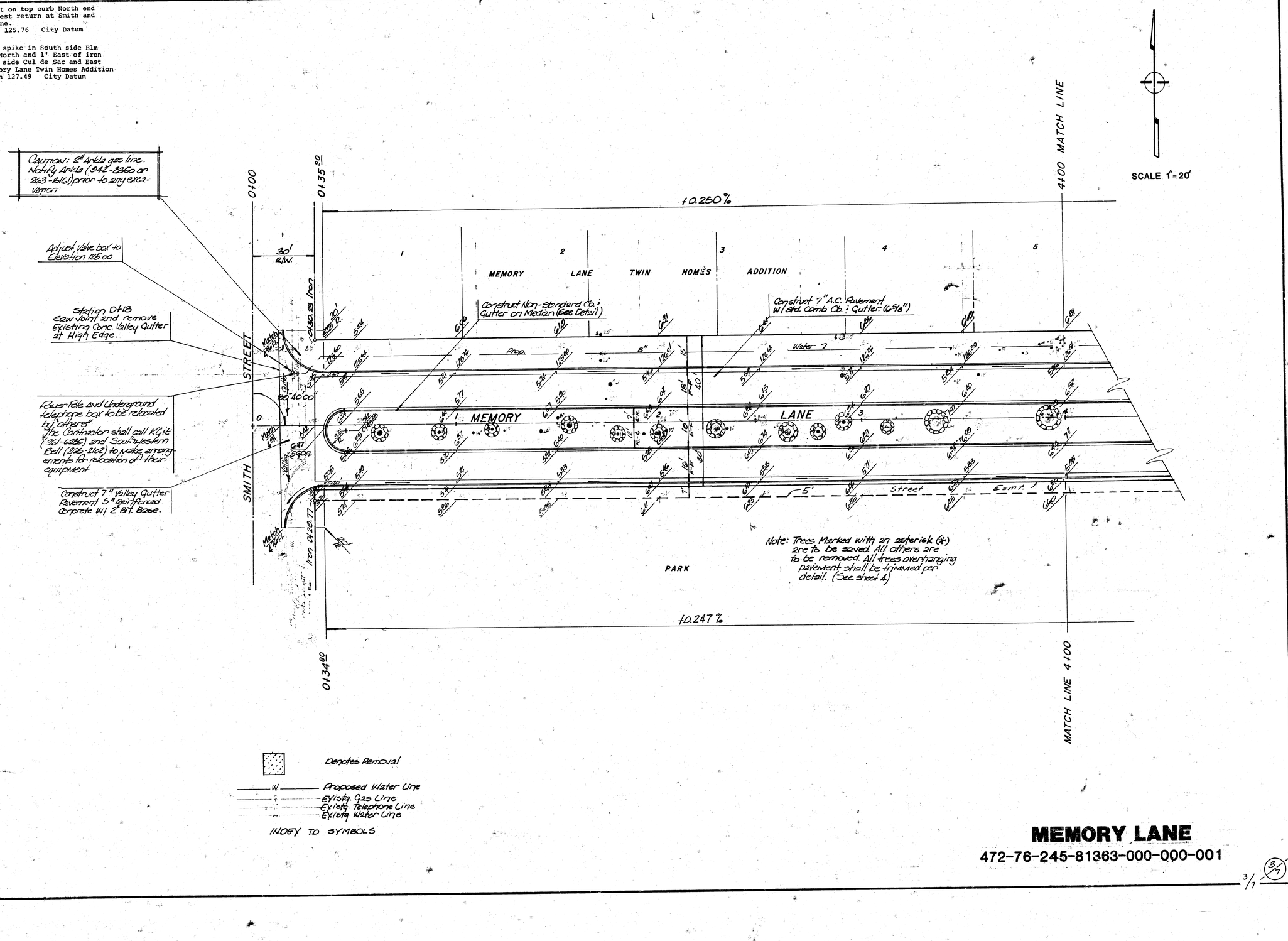
MEMORY LANE

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BENCH MARK: Square cut on top curb North end of Northwest return at Smith and Memory Lane.
Elevation 125.76 City Datum

BENCH MARK: Railroad spike in South side Elm Tree 1' North and 1' East of iron at South side Cul de Sac and East line Memory Lane Twin Homes Addition
Elevation 127.49 City Datum



Denotes Removal

—W— Proposed Water Line
—?— Existg. Gas Line
—T— Existg. Telephone Line
—W— Existg Water Line

INDEX TO SYMBOLS

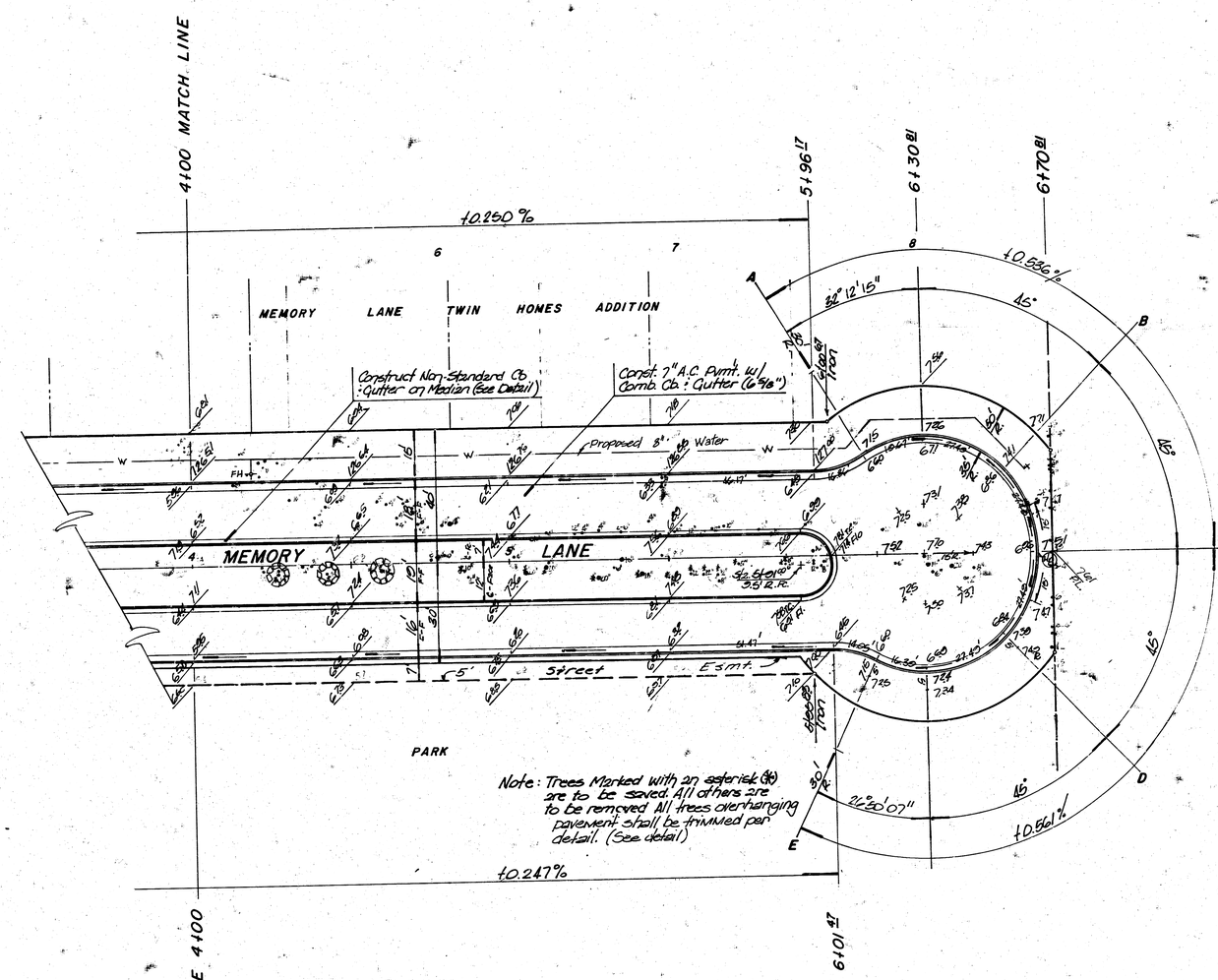
MEMORY LANE

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3/7

BENCH MARK: Square cut on top curb North end of Northwest return at Smith and Memory Lane.
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Elevation 127.49 City Datum



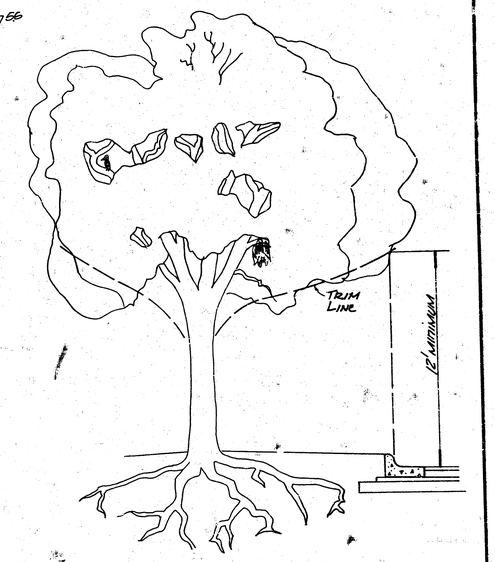
Note: Trees Marked with an asterisk (*) are to be saved. All others are to be removed. All trees overhanging pavement shall be trimmed per detail. (See detail)

SCALE 1"=20'

	Excavation	Comp Fill	Borrow
Cross Sections	360.0 C.Y.	262.8 C.Y.	1618.0 C.Y.
+10 %	37.0 C.Y.	26.3 C.Y.	161.8 C.Y.
Totals	397.0 C.Y.	289.1 C.Y.	1779.8 C.Y.

Subgrade Manipulation = 3061 S.Y.

NOTE: MEDIAN TO BE RECROSS-SECTIONED AFTER CONSTRUCTION FOR FINAL PAYMENT PURPOSES



Note: Trees shall be trimmed to a balanced and symmetrical shape. No part of the tree overhanging street pavement shall be lower than as shown.

TREE TRIMMING DETAIL

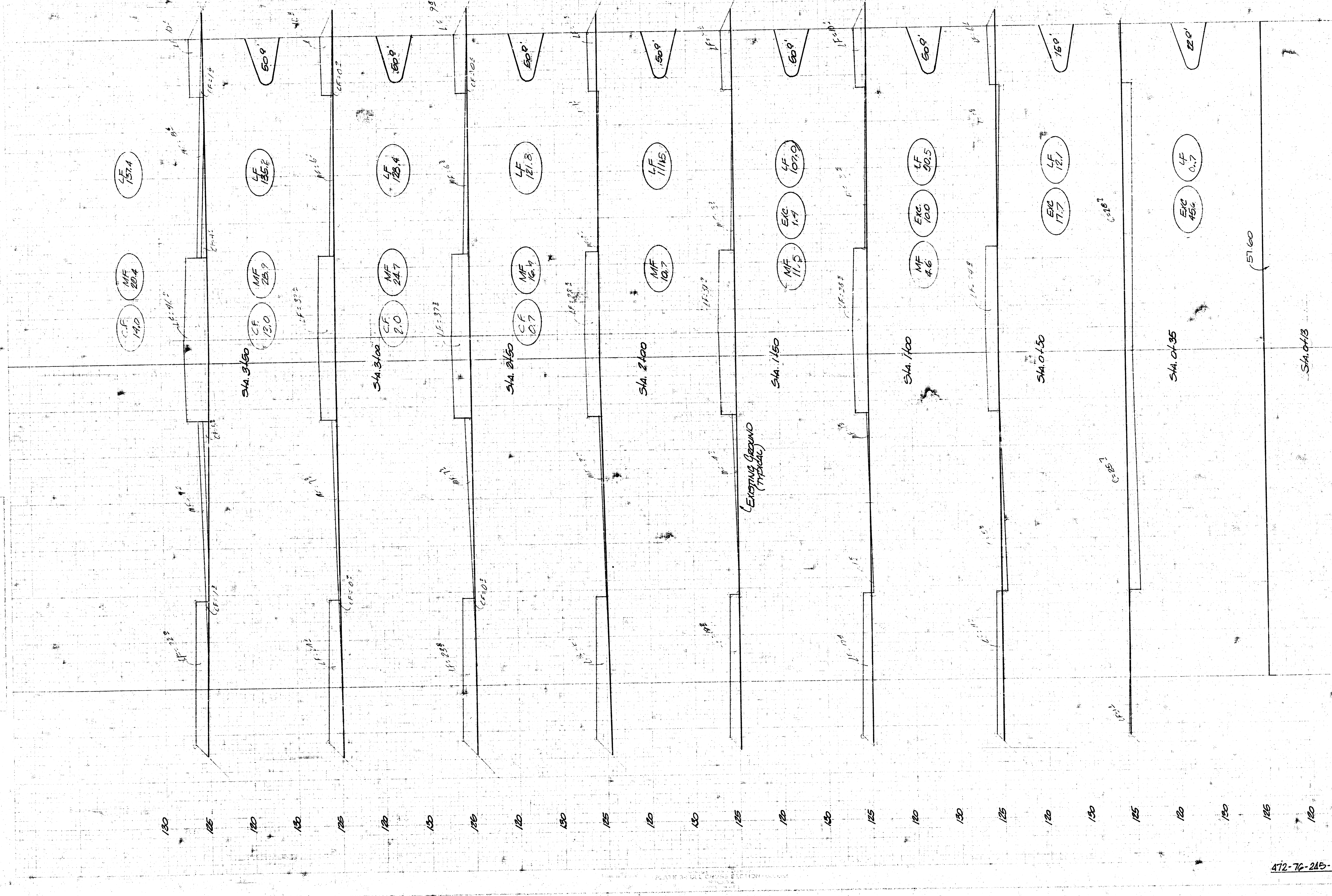
MEMORY LANE

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EARTHWORK QUANTITIES

MEMORY LANE



Sheet Totals

Manipulated Fill = 116.2 C.Y.

Excavation = 74.7 C.Y.

Loose Fill = 846.6 C.Y.

Compacted Fill = 24.7 C.Y.

MEMORY LANE

MEMORY LANE TWIN HOMES ADD.

EARTHWORK TOTALS	
EXCAVATION	= 360.9
LOOSE FILL	= 1139.7
MANIPULATED FILL	= 221.8
COMPACTED FILL	= 262.8

BORROW CALCULATION 1.1[1.2(CF+MF)+LF] - 0.8 EXC = CY BORROW

BORROW = 1.1[1.2(242.8+221.8)+1139.7] - 0.8(360.9)

BORROW = 1618 C.Y.

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172-70-245-81363-000-000-001 (1) 6/7

EARTHWORK QUANTITIES

MEMORY LANE

SHEET TOTALS

EXCAVATION - CU. YD.

LOOSE FILL - CU. YD.

MUNICIPALIZED FILL - SQ. FT.

CONSOLIDATED FILL - SQ. FT.

MEMORY LANE

MEMORY LANE TWIN HOMES ADD

Sta. 6+60.17

CF 9.4 | MF 2.1 | EXC. 51.6 | LF 53.3

Sta. 6+60

EXC. 1276 | LF 13.2

EXISTING GROUND (TYPICAL)

Sta. 5+00

EXC. 307 | LF 92.1

Sta. 4+50

CF 2.3 | MF 12.7 | EXC. 10.4 | LF 34.3

Sta. 4+00

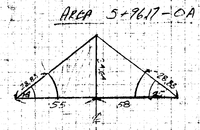
AREA FORMULAS CA-CE

CF = (AVG. RADIUS)² · π · 𝜃/360

MF = (AVG. RADIUS)² · π · 𝜃/360

LF = [(AVG. OUTER RADIUS)² - (AVG INNER RADIUS)²] · π · 𝜃/360

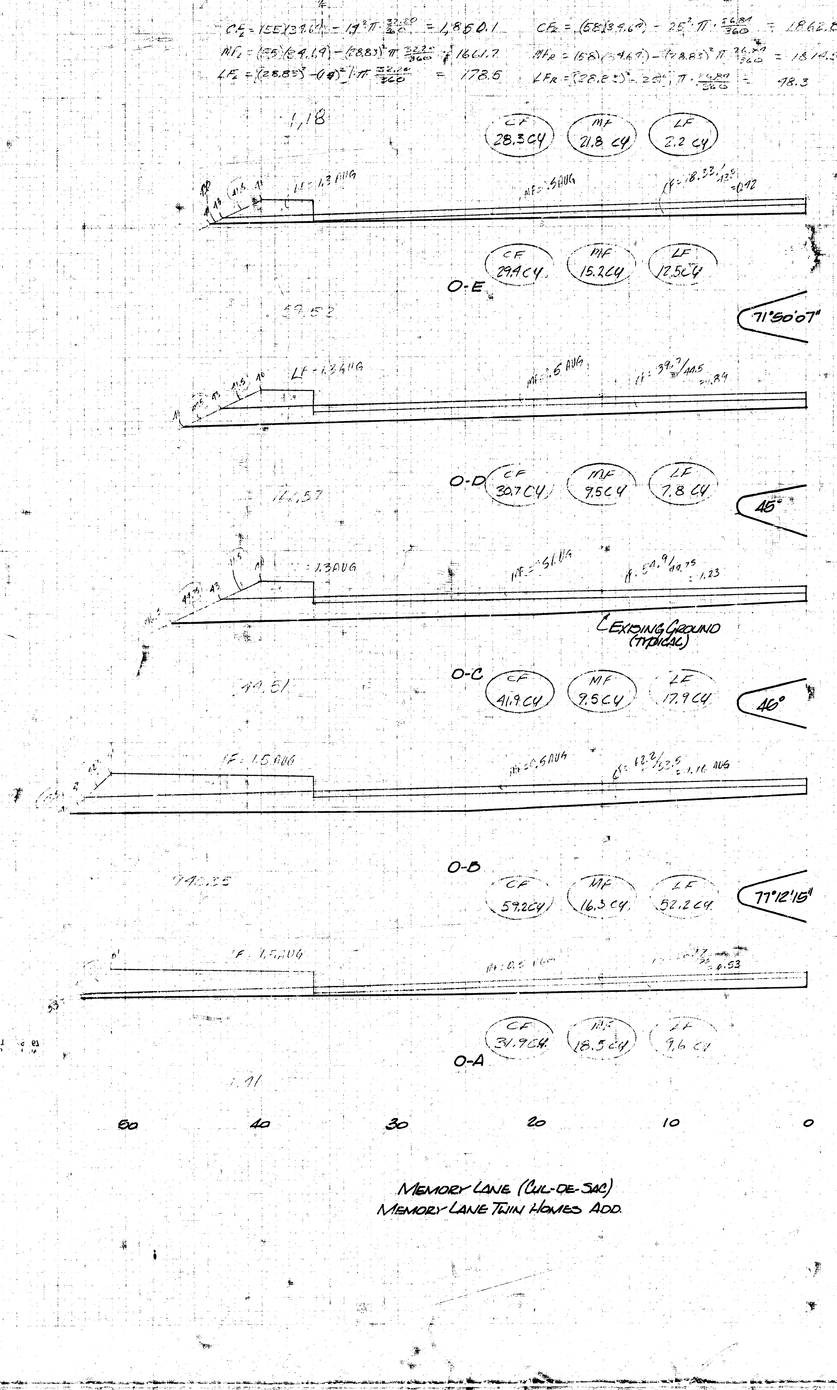
AREA S+96.17-CA AREA E+76.17-CE



$CF_A = 15E(3.6) = 19^2 \cdot \pi \cdot \frac{22.00}{360} = 1,850.1$ $CF_E = (68)(9.6) - 25^2 \cdot \pi \cdot \frac{56.00}{360} = 1862.8$

$MF_A = (55)(9.19) - (38.8)^2 \cdot \pi \cdot \frac{22.00}{360} = 1611.7$ $MF_E = (54)(9.67) - (42.85)^2 \cdot \pi \cdot \frac{76.00}{360} = 1814.5$

$LF_A = (28.85)^2 - 0.0^2 \cdot \pi \cdot \frac{22.00}{360} = 172.5$ $LF_E = (28.2)^2 - 22^2 \cdot \pi \cdot \frac{56.00}{360} = 48.3$



MEMORY LANE (CUL-DE-SAC)
MEMORY LANE TWIN HOMES ADD.

SHEET TOTALS

COMPACTED FILL = 321.4 CY.
MANIPULATED FILL = 10.8 CY.
WASTE FILL 102.6 CY.

EARTHWORK QUANTITIES
MEMORY LANE (CUL-DE-SAC)

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