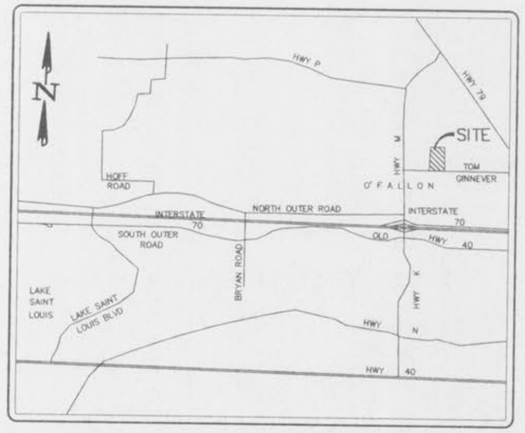
"WATER, SANITARY AND STORM SEWER AS-BUILTS"

PIEPERS GLEN

A TRACT OF LAND BEING PART OF THE NORTH HALF
OF THE NORTHEAST QUARTER OF
FRACTIONAL SECTION 21,
TOWNSHIP 47 NORTH, RANGE 3 EAST
OF THE FIFTH PRINCIPAL MERIDIAN,
ST. CHARLES COUNTY, MISSOURI

File Copy
APPROVED
7-22-99
City of Lindenwood



LOCATION MAP

NOT TO SCALE

THIS IS TO CERTIFY THAT DURING THE MONTH OF JUNE, 1999, BY ORDER OF PAGANO DEVELOPMENT INC. EXECUTED AN AS-BUILT SURVEY OF THE EXISTING WATER, SANITARY AND STORM SEWERS, FOR "PIEPERS GLEN" A SUBDIVISION ACCORDING TO THE PLAT THEREOF RECORDED IN PLAT BOOK , PAGE . THE SANITARY LATERALS WERE BUILT PER PLAN AS SUPPLIED TO BAX ENGINEERING BY THE CONTRACTOR, THEREFORE THEIR LOCATION IS ASSUMED APPROXIMATE. ALL SEWERS SHOWN LIE WITHIN THE EASEMENTS AS SHOWN ON SAID SUBDIVISION PLAT UNLESS OTHERWISE NOTED. THE RESULTS OF THIS SURVEY ARE SHOWN ON THIS PLAT TO THE BEST OF MY KNOWLEDGE AND BELIEF

DAVID L. OAKLEY
NUMBER 2265

BAX ENGINEERING CO., INC.
DAVID L. OAKLEY
MO REG. NO. 2265

SHEET INDEX

"AS-BUILTS ADDED JUNE, 1999"

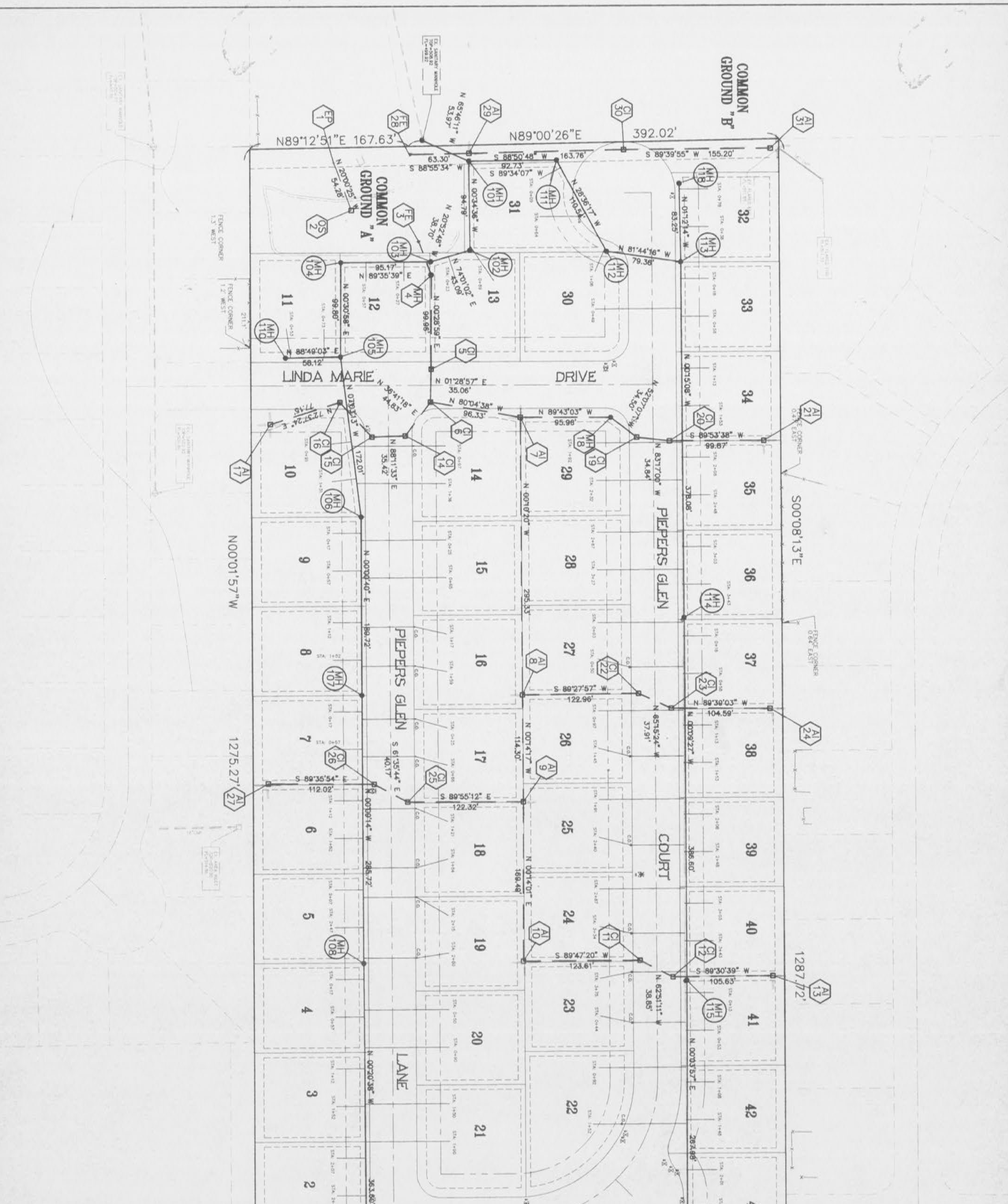
PREPARED FOR:
PAGANO DEVELOPMENT INC.
103 CLERMONT COURT
ST. LOUIS, MISSOURI 63124
(314) 432-3344

DISCLAIMER OF RESPONSIBILITY:
I hereby specify that the documents intended to be authenticated by my seal are limited to this sheet, and I hereby disclaim any responsibility for all other Drawings, Specifications, Estimates, Reports or other documents or instruments relating to or intended to be used for any part or parts of the architectural or engineering project or survey.

REVISIONS

BAX ENGINEERING
PLANNING
SURVEYING
1052 South Cloverleaf Drive
St. Peters, MO. 63376-8445
314-928-5552
FAX 928-1718

JUNE, 1999 — DATE
96-8433A — PROJECT NUMBER
1 OF 4 — SHEET OF
8433A-ASB.DWG — FILE NAME
LLG — DRAWN
DRO — CHECKED



"AS-BUILTS ADDED JUNE, 1999"

JUNE 1999
DATE
96-8433A
PROJECT NUMBER
2 OF 4
SHEET #
8433A-ASBLDWG
FILE NAME
LLG DRAWN DRO CHECKED

ENGINEERING
PLANNING
SURVEYING
1662 South Cloverleaf Drive
St. Peters, MO 63376-6445
314-926-5562
FAX 926-1718

REVISIONS

PREPARED FOR:

PAGANO DEVELOPMENT, INC.
103 CLERMONT COURT
ST. LOUIS, MO 63124
(314) 432-3344

REV. 10/29/98 CITY COMMENTS

SANITARY SEWER PROFILES
PIEPERS GLEN

OCTOBER 21, 1998 — 96-8433A

EXIST. MH | MH 101 | MH 102 | MH 103 | MH 104 | MH 105 | MH 106 | MH 107 | MH 108 | MH 109 | MH 105 | MH 110 | MH 118 | MH 119

EXISTING GROUND

PROPOSED GRADE

GRANULAR FILL

CONC. ENC.

53.97' ~~54.52'~~ 10" PVC @~~0.80%~~ @0.78%	94.19' ~~94.11'~~ ~ 8" PVC @~~1.00%~~ @1.12%	43.09 ~~43.99'~~ 8" PVC @~~1.00%~~ @1.07%	95.17' ~~95.09'~~ ~ 8" PVC @~~1.00%~~ @1.00%	99.80' ~~100.59'~~ 8" PVC @~~1.00%~~ @1.02%	172.01' ~~171.23'~~ ~ 8" PVC @~~1.11%~~ @1.06%	189.72' ~~190.00'~~ ~ 8" PVC @~~2.00%~~ @1.55%	285.72' ~~285.00'~~ ~ 8" PVC @~~1.78%~~ @1.87%	363.60' ~~365.05'~~ ~ 8" PVC @~~1.16%~~ @1.12%	58.12' ~~58.03'~~ ~ 8" PVC @~~1.00%~~ @1.08%	83.25' ~~83.01'~~ ~ 8" PVC @~~1.00%~~ @1.14%			

SCALE
HORIZ 1" = 50'
VERT 1" = 10'

EXIST. MH | MH 101 | MH 111 | MH 112 | MH 113 | MH 114 | MH 115 | MH 116 | MH 117

PROPOSED GRADE

EXISTING GROUND

GRANULAR FILL

CONC. ENC.

92.73' ~~92.91'~~ 10" PVC @~~0.80%~~ @0.82%	110.54' ~~111.26'~~ ~ 10" PVC @~~0.80%~~ @0.82%	79.36' ~~79.04'~~ 10" PVC @~~0.80%~~ @0.83%	378.08' ~~380.00'~~ ~ 8" PVC @~~1.38%~~ @1.30%	386.60' ~~385.00'~~ ~ 8" PVC @~~1.20%~~ @1.09%	267.98' ~~269.00'~~ ~ 8" PVC @~~1.20%~~ @1.33%	226.91' ~~225.27'~~ ~ 8" PVC @~~1.10%~~ @1.09%	

"AS-BUILTS ADDED JUNE, 1999"

STATE OF MISSOURI — DAVID L. OAKLEY — NUMBER LS-2265

3/4

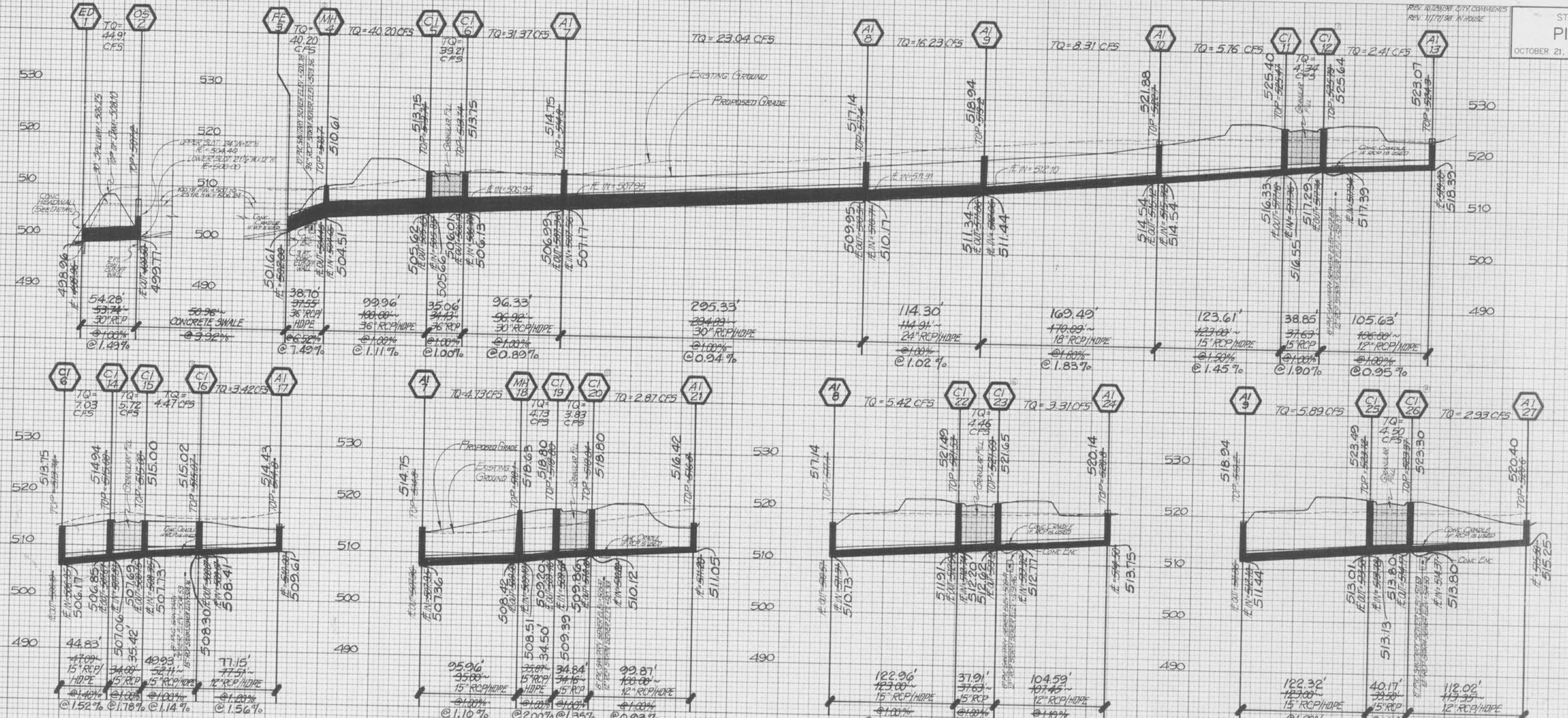
HIGHWAY FEDERAL AID SHEET
PLATE 3-FULL CROSS SECTION-FULL LINE
NATIONAL PRINTFAST
PRINTED IN U.S.A.

REV. 10/29/98 CITY COMMENTS
REV. 11/17/98 IN HOUSE

STORM SEWER PROFILES

PIEPERS GLEN

OCTOBER 21, 1998 — 96-8433A



SCALE
HORIZ 1" = 50'
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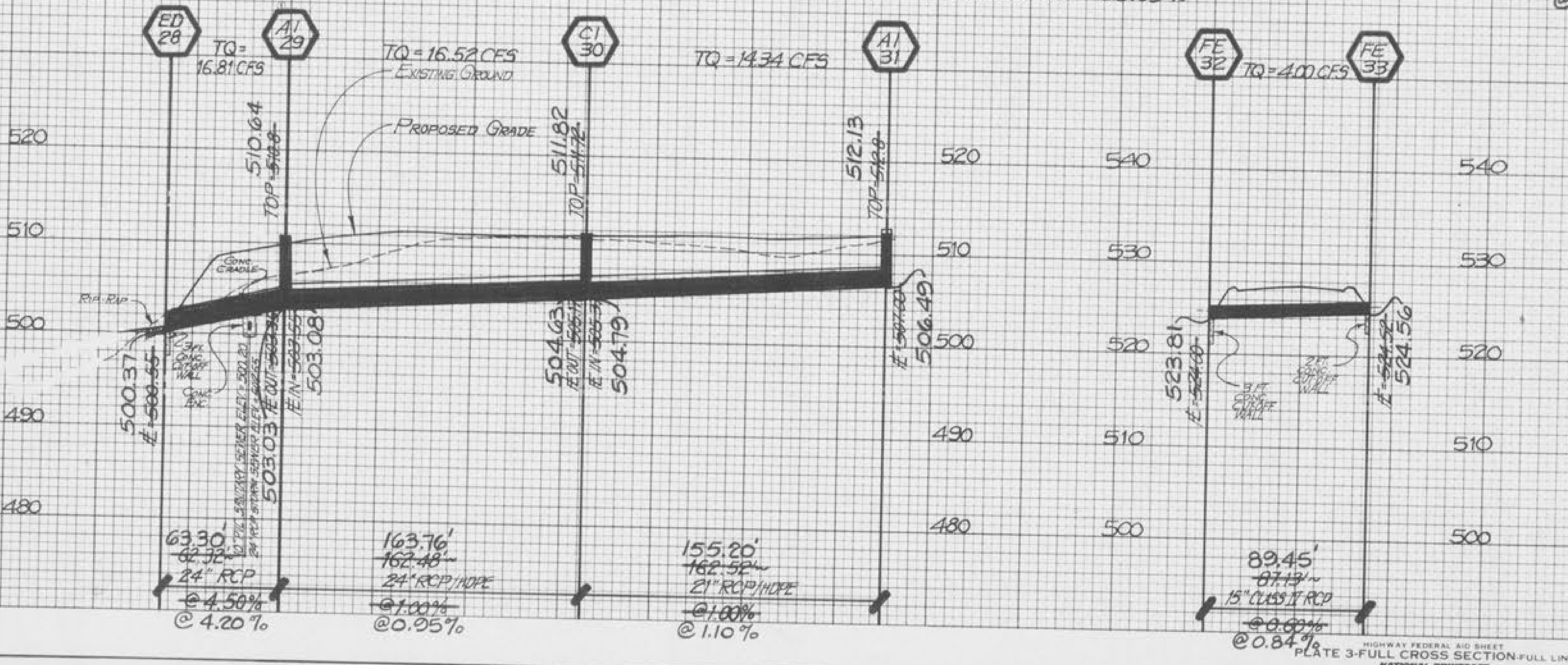


H.D.P.E. PIPE DETAIL

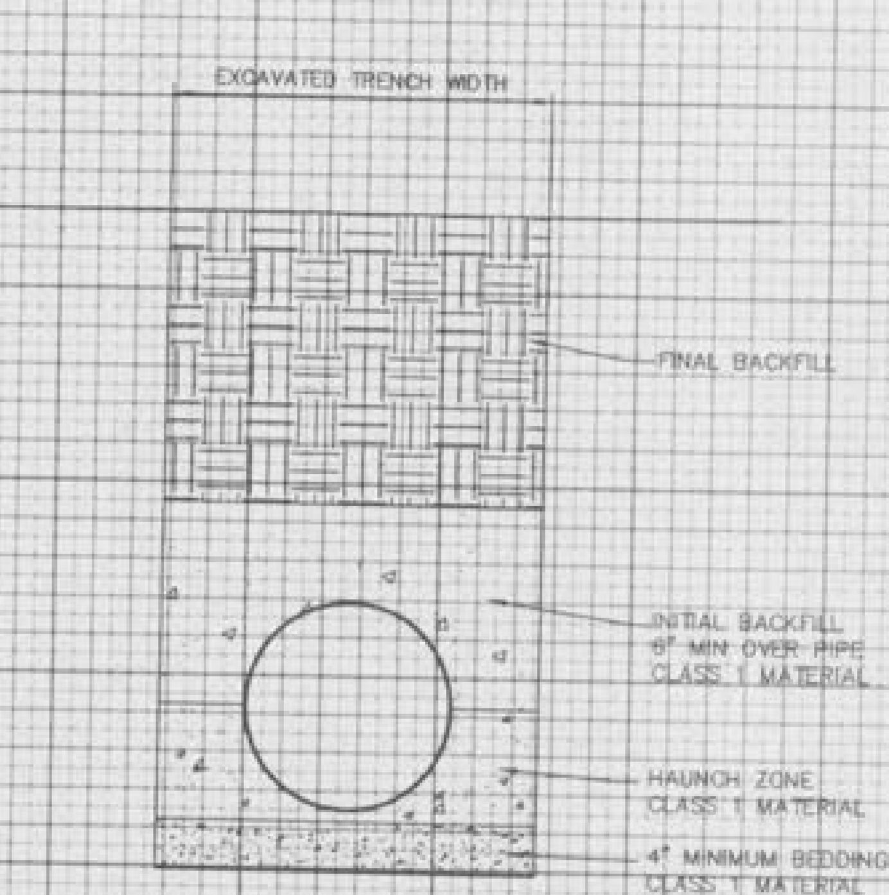
1. The use of High Density Polyethylene Corrugated pipe A.D.S. N12 or Equal will be permitted as an acceptable alternative to reinforced concrete pipe. Pipe shall meet A.S.T.M. D-2321 and AASHTO M-294-92I. Concrete flared end sections and inlet structures shall be required. Pipe must have smooth interior wall and is not to be used inside the Public Right-of-Way.

All concrete pipe or HDPE pipe shall be installed with o-ring rubber type gaskets per M.S.D. Standard Construction Specifications or Manufacturer.

2. In typical conditions the minimum trench width is determined by the size of the pipe and the ability to get compaction equipment between the pipe and the trench walls. The minimum trench width should not be less than the outside diameter plus 16 inches or the pipe outside diameter times 1.25 plus 12 inches; whichever is greater. High speed trenchers may enable satisfactory installation of pipe in narrower trenches. Poor insitu soil conditions such as peat, muck, running sands, or expansive clays will require substantially wider backfill as well as deeper foundation and bedding. Trench width and foundation depth should be based on a thorough site investigation.

3. Backfill in the area up to the springline should be carefully placed and compacted to achieve a minimum E value of 1,000 psi as detailed in ASTM D2321. A minimum of 12" of backfill should be placed and compacted above the crown of the pipe. It is typical for trenches to be backfilled entirely with Type I or Type II materials when under pavement.

4. Flexible pipe should never be installed in a concrete cradle, as done for rigid pipe in a Class A installation. This type of installation could create concentrated forces at the ends of the cradle when the pipe has deformed.



NOTE:
IF CONTRACTOR/DEVELOPER USES ALTERNATIVE HDPE PIPE,
ALL SEWER CROSSINGS SHALL BE CONCRETE ENCASED.
ALL FLARED END SECTIONS AND INLET STRUCTURES WILL BE CONCRETE.

"AS-BUILTS ADDED JUNE, 1999"

4/4

OAKLEY NUMBER LS-2265 REGISTERED LAND SURVEYOR

HIGHWAY FEDERAL AID SHEET
PLATE 3-FULL CROSS SECTION-FULL LINE
NATIONAL PRINTFAST
PRINTED IN U.S.A.