

HO. CO. #2944001 ELEV. 528.211
 CONC. MONUMENT AT SURFACE, ON THE EAST SIDE OF DONCASTER DRIVE SOUTH OF ROUNDHILL ROAD.
 N 513689.929 E 050664.268
 HO. CO. #2944002 ELEV. 535.366
 CONC. MONUMENT 0.1' ABOVE SURFACE, NEAR THE COR. OF LOT, HOUSE #4597 ROUNDHILL RD. 220' ± NORTH OF ROUNDHILL RD. CENTERLINE.
 N 514196.358 E 050996.389

PUBLIC WATER AND SEWER EXTENSIONS

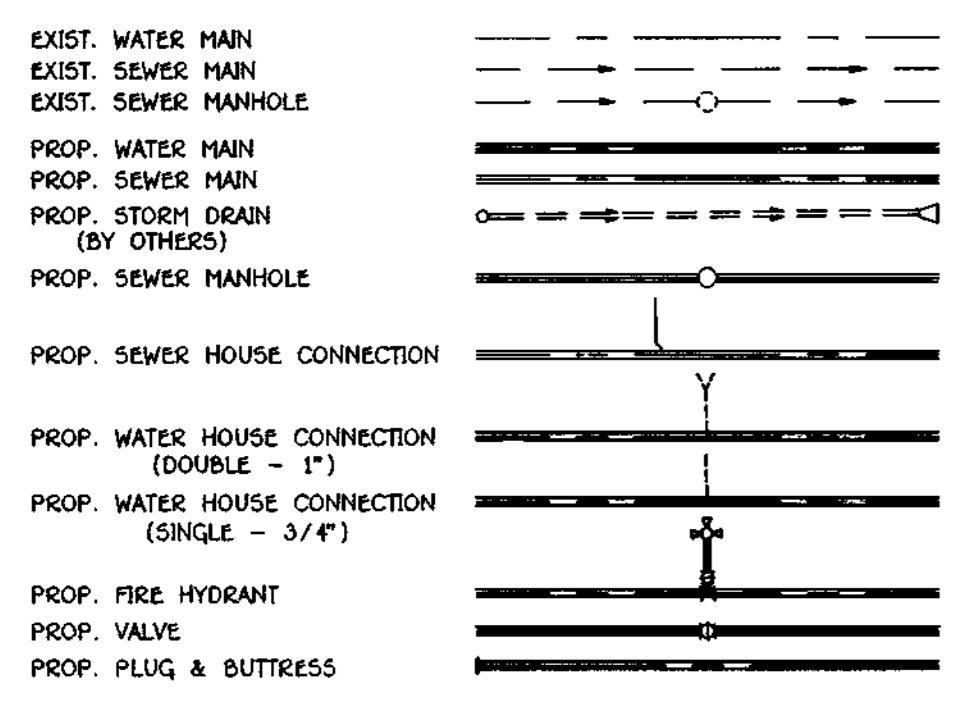
WORTHINGTON RESERVE SECTION TWO PHASE TWO

2nd ELECTION DISTRICT

HOWARD COUNTY, MARYLAND

CONTRACT No. 14-3375-D

LEGEND



| LOT No. | STATION @ R/W | ROAD | LOT No. | STATION @ R/W | ROAD |
|---------|---------------|----------------|---------|------------------|-----------------------|
| 89-90 | 10+24.6 | CHENS VINEYARD | | | WORTHINGTON HANOR WAY |
| 91-92 | 12+00.7 | | | | |
| 93 | 12+69.5 | | | | |
| 94 | 11+60.6 | | | | |
| 95-96 | 10+25.8 | | | | |
| 108-109 | 7+94.6 | | | | |
| 110-111 | 4+47.5 | | | | |
| 113 | 3+76.0 | | | | |
| 114 | 3+80.0 | | | | |
| 115 | 1+75.8 | | | | |
| | | | | | |
| | | | 73-74 | 1+18.0 | |
| | | | 75-76 | 2+90.0 | |
| | | | 77-78 | 5+33.8 | |
| | | | 79-80 | L.P. STA. 7+01.3 | |
| | | | 81-82 | L.P. STA. 7+39.7 | |
| | | | 83-84 | 4+89.9 | |
| | | | 85-86 | 3+48.7 | |
| | | | 87-88 | 2+46.0 | |
| | | | 89-90 | 1+92.0 | |
| | | | 99-100 | 2+61.7 | |
| | | | 101 | 3+34.0 | |
| | | | 102 | 3+40.5 | |
| | | | 103-104 | L.P. STA. 4+88.0 | |
| | | | 105-106 | L.P. STA. 5+67.3 | |
| | | | 107 | 3+52.3 | |

NOTE: See profiles for sewer house connection stations.

| ITEMS | QUANTITIES ESTIMATED | AS-BUILT | |
|---------------|----------------------|------------|----------------------------|
| | | QUANTITIES | TYPE |
| 6" WATER | 1,620 L.F. | 1,620 L.F. | CL. 20, R. GRIFFIN PIPE |
| 8" WATER | 858 L.F. | 858 L.F. | " " " " " " " " |
| 8" VALVES | 3 EA. | 3 EA. | " " " " " " " " |
| FIRE HYDRANTS | 3 EA. | 3 EA. | " " " " " " " " |
| 1" WHC | 413 L.F. | 413 L.F. | TYPE 'K' CORNER |
| 3/4" WHC | 268 L.F. | 268 L.F. | " " " " " " " " |
| 8" SEWER | 1,875 L.F. | 1,875 L.F. | P.V.C. J.V.I. MANUFACTURER |
| MANHOLES | 9 EA. | 9 EA. | PRECAST ATLANTIC |
| 8" SHC | 1,194 L.F. | 1,194 L.F. | P.V.C. J.V.I. MANUFACTURER |

NAME OF UTILITY CONTRACTOR:
 SURVEY AND DRAFTING DIVISION AS-BUILT DATE

| No. | DESCRIPTION |
|-----|-----------------------------------|
| 1 | TITLE SHEET |
| 2 | PLAN OF WATER AND SEWER MAINS |
| 3 | PLAN OF WATER AND SEWER MAINS |
| 4 | PROFILES OF WATER AND SEWER MAINS |
| 5 | PROFILES OF WATER AND SEWER MAINS |

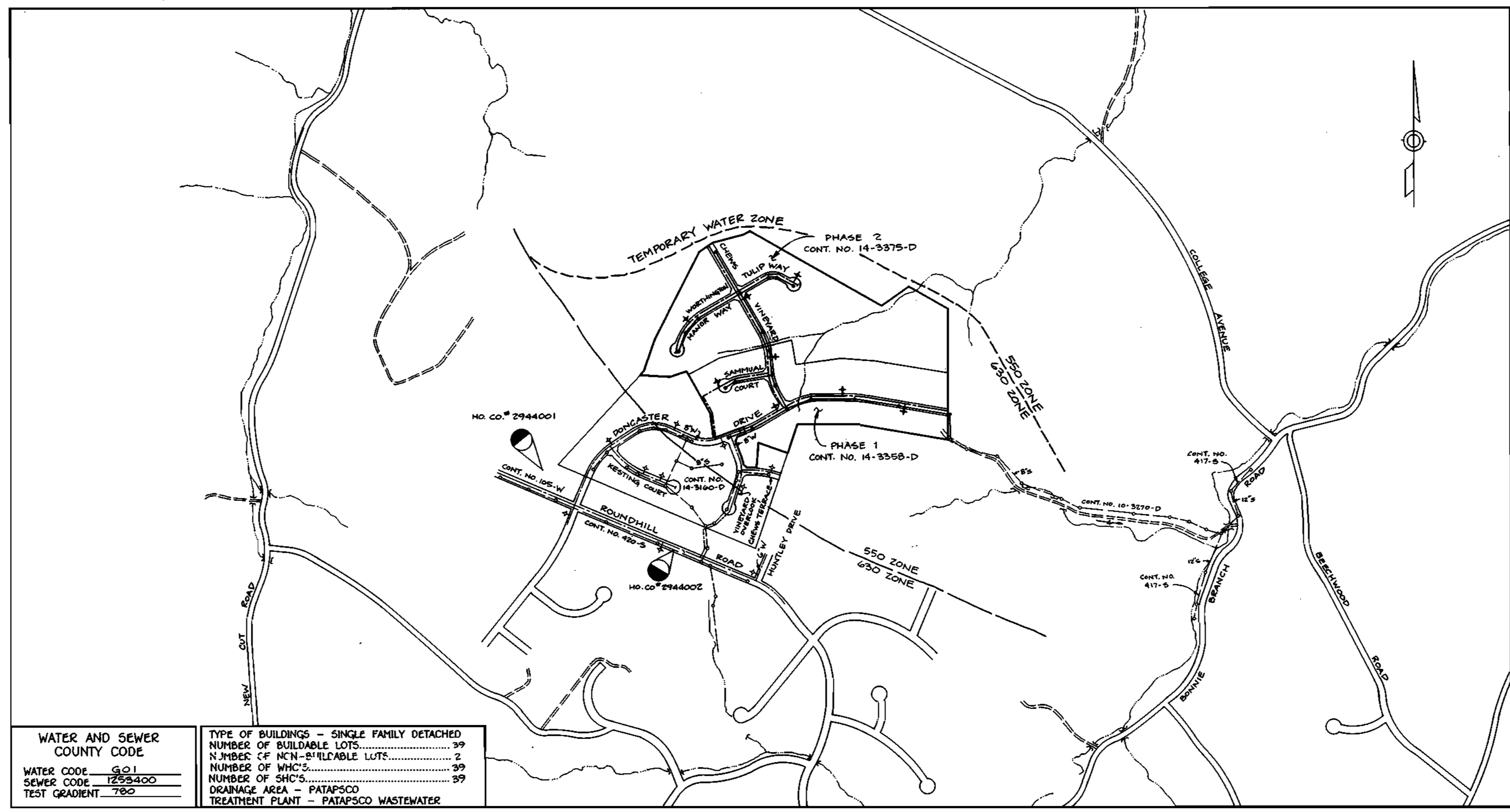
HOWARD SOIL CONSERVATION DISTRICT:
 REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS

Patricia Engler 8/12/94
 U.S. SOIL CONSERVATION SERVICE DATE

THIS PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

John P. Rebutzer 8/12/94
 HOWARD SOIL CONSERVATION DISTRICT DATE

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE HOWARD COUNTY STANDARD SPECIFICATIONS AND AS PER ROAD CONSTRUCTION PLANS F-94-102



| | |
|-----------------------------|--|
| WATER AND SEWER COUNTY CODE | TYPE OF BUILDINGS - SINGLE FAMILY DETACHED |
| WATER CODE 500 | NUMBER OF BUILDABLE LOTS 39 |
| SEWER CODE 1253400 | NUMBER OF NON-BUILDABLE LOTS 2 |
| TEST GRADIENT 782 | NUMBER OF WHCS 39 |
| | NUMBER OF SHCS 39 |
| | DRAINAGE AREA - PATAPSCO |
| | TREATMENT PLANT - PATAPSCO WASTEWATER |

VICINITY MAP
 SCALE: 1" = 600'

- NOTES:**
- CLASS 82 DIP TO BE USED BETWEEN MH'S AND EXISTING MH'S, BETWEEN MH'S TO AND MH'S.
 - PRESSURE REDUCING VALVES TO BE PROVIDED ON ALL WATER HOUSE CONNECTIONS.

GENERAL NOTES

- PART 1 - GENERAL**
- APPROXIMATE LOCATION OF EXISTING MAINS ARE SHOWN. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT EXISTING MAINS AND SERVICES AND MAINTAIN UNINTERRUPTED SUPPLY. ANY DAMAGE INCURRED SHALL BE REPAIRED IMMEDIATELY TO THE SATISFACTION OF THE ENGINEER AT THE CONTRACTOR'S EXPENSE.
 - ALL HORIZONTAL CONTROLS ARE BASED ON MARYLAND STATE COORDINATES.
 - ALL VERTICAL CONTROLS ARE BASED ON U.S.G.S. DATA.
 - ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS.
 - CLEAR ALL UTILITIES BY A MINIMUM OF 6". CLEAR ALL POLES BY 2'-0" MINIMUM OR TUNNEL AS REQUIRED. THE OWNER HAS CONTACTED THE UTILITY COMPANIES AND HAS MADE ARRANGEMENTS FOR BRACING OF POLES AS SHOWN ON THE DRAWINGS. IN THE EVENT THE CONTRACTOR'S WORK REQUIRES THE BRACING OF ADDITIONAL POLES, ANY COST INCURRED BY THE OWNER FOR BRACING OF ADDITIONAL POLES OR DAMAGES SHALL BE DEDUCTED FROM MONEY OWED THE CONTRACTOR. THE CONTRACTOR SHALL COORDINATE WITH THE UTILITY COMPANIES TO SCHEDULE THE BRACING OF THE POLES.
 - FOR DETAILS NOT SHOWN ON THE DRAWINGS, AND FOR MATERIALS AND CONSTRUCTION METHODS USE HOWARD COUNTY DESIGN MANUAL VOLUME IV, STANDARD SPECIFICATIONS AND DETAIL FOR CONSTRUCTION (LATEST EDITION), THE CONTRACTOR SHALL HAVE A COPY OF VOLUME IV ON THE JOB.
 - WHERE TEST PITS HAVE BEEN MADE ON EXISTING UTILITIES, THEY ARE NOTED BY THE SYMBOL [Symbol] AT THE LOCATION OF THE TEST PIT. A NOTE OR NOTES CONTAINING THE RESULTS OF THE TEST PIT OR PITS IS INCLUDED ON THE DRAWINGS. EXISTING UTILITIES IN THE VICINITY OF THE PROPOSED WORK FOR WHICH TEST PITS HAVE NOT BEEN DONE SHALL BE LOCATED BY THE CONTRACTOR TWO WEEKS IN ADVANCE OF CONSTRUCTION OPERATIONS AT HIS OWN EXPENSE.
 - CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITY COMPANIES OR AGENCIES AT LEAST FIVE WORKING DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS:
 STATE HIGHWAY ADMINISTRATION.....531-5533
 BALTIMORE GAS & ELECTRIC CO. CONTRACTOR SERVICES.....850-4820
 BALTIMORE GAS & ELECTRIC CO. UNDERGROUND DAMAGE CONTROL.....787-3068
 MISS UTILITY.....1-800-257-7777
 COLONIAL PIPELINE CO.....795-1390
 HOWARD CO. DEPT. OF PUBLIC WORKS BUREAU OF UTILITIES.....313-4900
 - TREES AND SHRUBS ARE TO BE PROTECTED FROM DAMAGE TO MAXIMUM EXTENT. TREES AND SHRUBS LOCATED WITHIN THE CONSTRUCTION STRIP ARE NOT TO BE REMOVED OR DAMAGED BY THE CONTRACTOR. CONTRACTOR SHALL REMOVE TREES, STUMPS AND ROOTS ALONG LINE OF EXCAVATION. PAYMENT FOR SUCH REMOVAL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR CONSTRUCTION OF THE MAIN.
 - PLACE REGULATION "MEN WORKING" AND WARNING SIGNS AS REQUIRED TO COMPLY WITH MARYLAND STATE HIGHWAY ADMINISTRATION MANUAL OF TRAFFIC CONTROL FOR HIGHWAY MAINTENANCE OPERATIONS.
 - THE CONTRACTOR SHALL NOTIFY THE BUREAU OF HIGHWAYS, HOWARD COUNTY, AT (410) 313-2450 AT LEAST FIVE WORKING DAYS BEFORE ANY OPEN CUT OF ANY COUNTY ROAD OR BORING/LACKING OPERATION IN COUNTY ROADS FOR LAYING WATER/SEWER MAINS OR HOUSE CONNECTIONS. THE APPROVAL OF THESE DRAWINGS WILL CONSTITUTE COMPLIANCE WITH DPW REQUIREMENTS PER SECTION 18.114(a) OF THE HOWARD COUNTY CODE.

- PART 2 - WATER**
- ALL WATER MAINS TO BE D.I.P. CLASS 82 UNLESS OTHERWISE NOTED.
 - TOPS OF ALL WATER MAINS TO HAVE A MINIMUM OF 3-1/2" COVER UNLESS OTHERWISE NOTED.
 - VALVES ADJACENT TO TEES SHALL BE STRAPPED TO TEES.
 - ALL FITTINGS SHALL BE BUTTRESSED OR ANCHORED WITH CONCRETE IN ACCORDANCE WITH THE STANDARD DETAILS UNLESS OTHERWISE PROVIDED FOR ON THE DRAWINGS.
 - FIRE HYDRANTS SHALL BE SET TO THE BURY LINE ELEVATIONS SHOWN ON THE DRAWINGS. ALL FIRE HYDRANTS SHALL BE RESTRAINED AND BUTTRESSED WITH CONCRETE IN ACCORDANCE WITH STANDARD DETAILS. SOL AROUND THE FIRE HYDRANT SHALL BE COMPACTED IN ACCORDANCE WITH SECTION 1000 AND 1005 OF THE STANDARD SPECIFICATIONS.
 - THE CONTRACTOR SHALL NOT OPERATE ANY WATER MAIN VALVES ON THE EXISTING WATER SYSTEM.
 - ALL WATER HOUSE CONNECTIONS SHALL BE FOR INSIDE METER SETTING UNLESS OTHERWISE NOTED ON PLANS OR IN SPECIFICATIONS.

- PART 3 - SEWER**
- ALL SEWER MAINS SHALL BE DIP, RCP, VCPX, CSPX, RCP AND P.V.C. UNLESS OTHERWISE NOTED.
 - ALL MANHOLES SHALL BE 4' - 0" INSIDE DIAMETER UNLESS OTHERWISE NOTED.
 - FORCE MAINS SHALL BE D.I.P. ONLY.
 - MANHOLES SHOWN WITH 12" AND 18" WALLS ARE FOR BRICK MANHOLES ONLY.
 - MANHOLES DESIGNATED W.T. IN PLAN AND PROFILE SHALL HAVE WATERTIGHT FRAME AND COVERS, STANDARD DETAIL 05.52, WHERE WATERTIGHT MANHOLE FRAME AND COVER IS USED, SET TOP OF FRAME 1" - 6" ABOVE FINISHED GRADE UNLESS OTHERWISE NOTED ON THE DRAWINGS.
 - HOUSE(S) WITH THE SYMBOL "C.N.S." INDICATES THAT CELLAR CANNOT BE SERVED.

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

James P. Law 8/15/94
 DIRECTOR OF PUBLIC WORKS DATE

Robert M. Dunning 8-4-94
 CHIEF, BUREAU OF UTILITIES DATE

Charles J. Seaman 8/15/94
 CHIEF, BUREAU OF ENGINEERING DATE

Michael J. ... 8/15/94
 CHIEF, LAND DEVELOPMENT DIVISION DATE

TSA GROUP, INC.
 planning • engineering • surveying
 8480 Baltimore National Pike • Suite 418
 Ellicott City, Maryland 21043

John ...

| | | | |
|---------------|--------|--|-----------|
| DES: JME, DRK | D.B.T. | RAISE SEWER ON WORTHINGTON HANOR WAY (TULIP WAY TAKE OFF D.I.P.) | 11-9-94 |
| DRN: DRK, DBT | | | |
| CHK: JME | | | |
| DATE: 5-6-94 | BY | NO. | REVISIONS |
| 7-27-94 | | | |

TITLE SHEET

600 SCALE MAP NO. 31

BLOCK No. 2

WORTHINGTON RESERVE
 SECTION 2 - PHASE 2
 LOTS 73-111
 ELECTION DISTRICT NO. 2
 CONTRACT NO. 14-3375-D

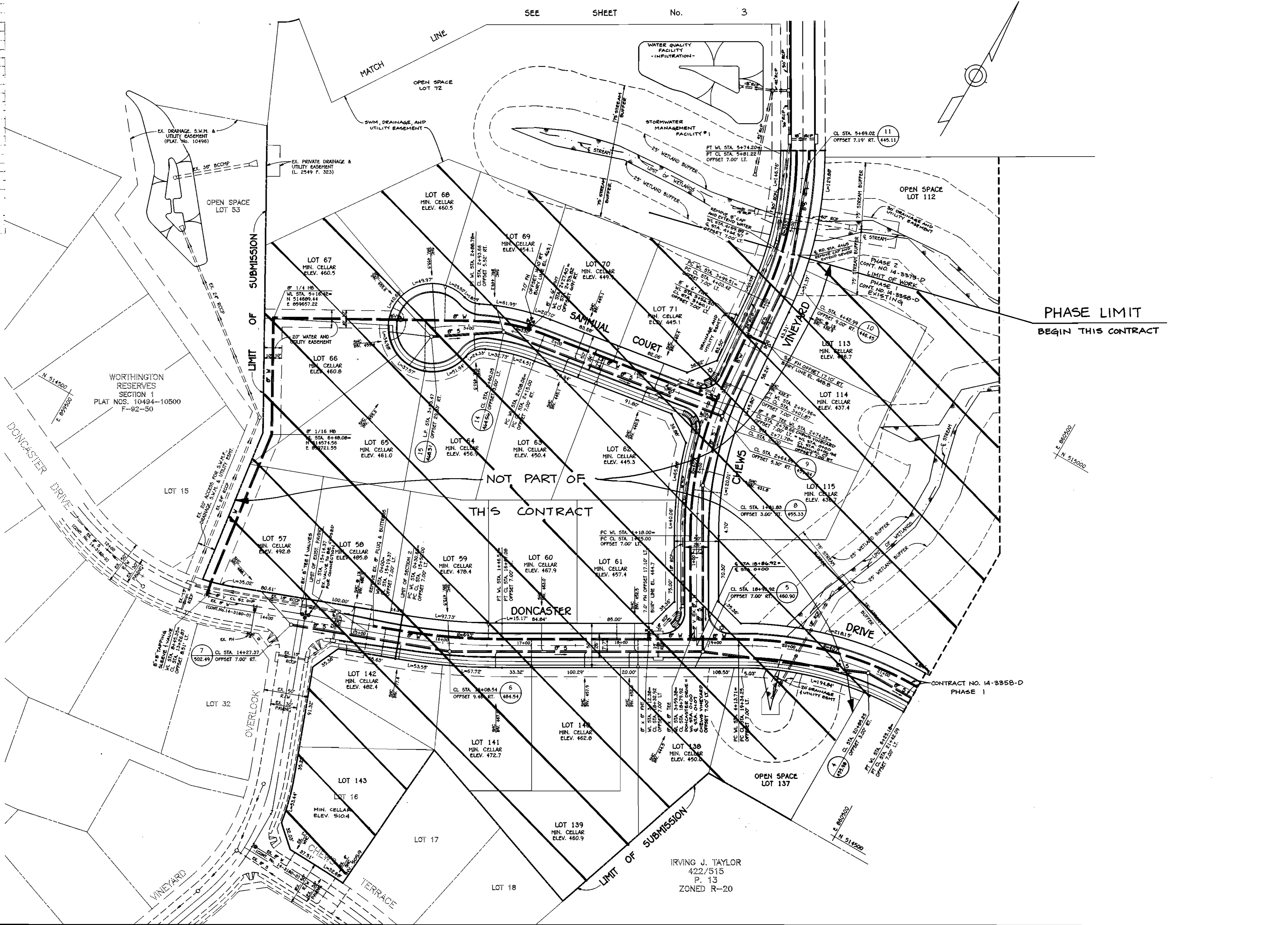
SCALE AS SHOWN

SHEET 1 OF 5

3375 WS/1 WORTHINGTON RESERVE (sect. 2, ph. 2)

3375 w9/2 WORTHINGTON RESERVE (sect. 2, Ph. 2)

| FROM | TO | LENGTH |
|------------------------|---------|--------|
| 6" P.V. (ELEV. 110.00) | E. P.H. | 12.0' |
| 6" P.V. (ELEV. 110.00) | E. P.H. | 12.0' |
| 6" V. (ELEV. 110.00) | E. P.H. | 4.2' |
| 6" V. (ELEV. 110.00) | E. P.H. | 4.1' |
| 6" P.V. (ELEV. 110.00) | E. P.H. | 51.4' |
| 6" P.V. (ELEV. 110.00) | E. P.H. | 21.2' |
| 6" V. (ELEV. 110.00) | E. P.H. | 4.2' |
| 6" V. (ELEV. 110.00) | E. P.H. | 5.7' |
| 6" V. (ELEV. 110.00) | E. P.H. | 17.3' |
| 6" P.V. (ELEV. 110.00) | E. P.H. | 47.9' |
| 6" P.V. (ELEV. 110.00) | E. P.H. | 15.2' |
| 6" P.V. (ELEV. 110.00) | E. P.H. | 34.2' |
| 6" V. (ELEV. 110.00) | E. P.H. | 2.4' |
| 6" V. (ELEV. 110.00) | E. P.H. | 4.1' |
| 6" P.V. (ELEV. 110.00) | E. P.H. | 43.7' |
| 6" P.V. (ELEV. 110.00) | E. P.H. | 50.1' |
| 6" V. (ELEV. 110.00) | E. P.H. | 12.7' |
| 6" V. (ELEV. 110.00) | E. P.H. | 27.7' |
| 6" V. (ELEV. 110.00) | E. P.H. | 18.2' |



HOWARD SOIL CONSERVATION DISTRICT:
REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT
AND MEETS TECHNICAL REQUIREMENTS

Patricia Engler 8/15/94
U.S. SOIL CONSERVATION SERVICE DATE

THIS PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT
CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

John R. Denton 8/15/94
HOWARD SOIL CONSERVATION DISTRICT DATE

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE
IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE
HOWARD COUNTY STANDARD SPECIFICATIONS AND AS PER
ROAD CONSTRUCTION PLANS F-94-102

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

James J. ... 8/15/94
DIRECTOR OF PUBLIC WORKS DATE

Robert ... 8-4-94
CHIEF, BUREAU OF UTILITIES DATE

... 8/15/94
CHIEF, LAND DEVELOPMENT DIVISION DATE

TSA GROUP, INC.
planning • engineering • surveying
8480 Baltimore National Pike • Suite 418
Ellicott City, Maryland 21043

John ...

| | | | | | |
|---------------|----|-----|-----------|------|--|
| DES: JME, DRK | | | | | |
| DRN: DRK, DBT | | | | | |
| CHK: JME | | | | | |
| DATE: 5-6-94 | | | | | |
| 7-27-94 | BY | NO. | REVISIONS | DATE | |

IRVING J. TAYLOR
422/515
P. 13
ZONED R-20

PLAN OF
WATER AND SEWER MAINS

WORTHINGTON RESERVE
SECTION 2 - PHASE 2
LOTS 73 - 111
ELECTION DISTRICT NO. 2
CONTRACT NO. 14-3375-D

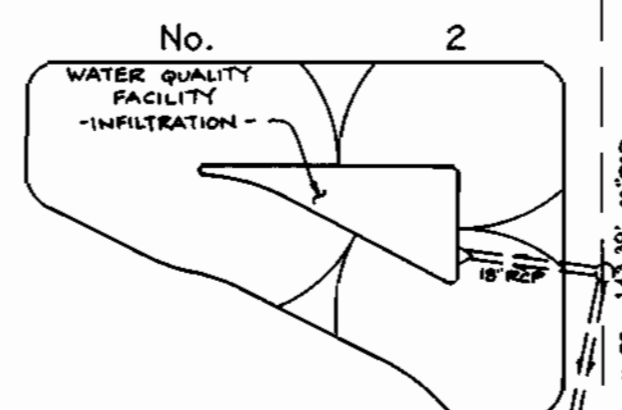
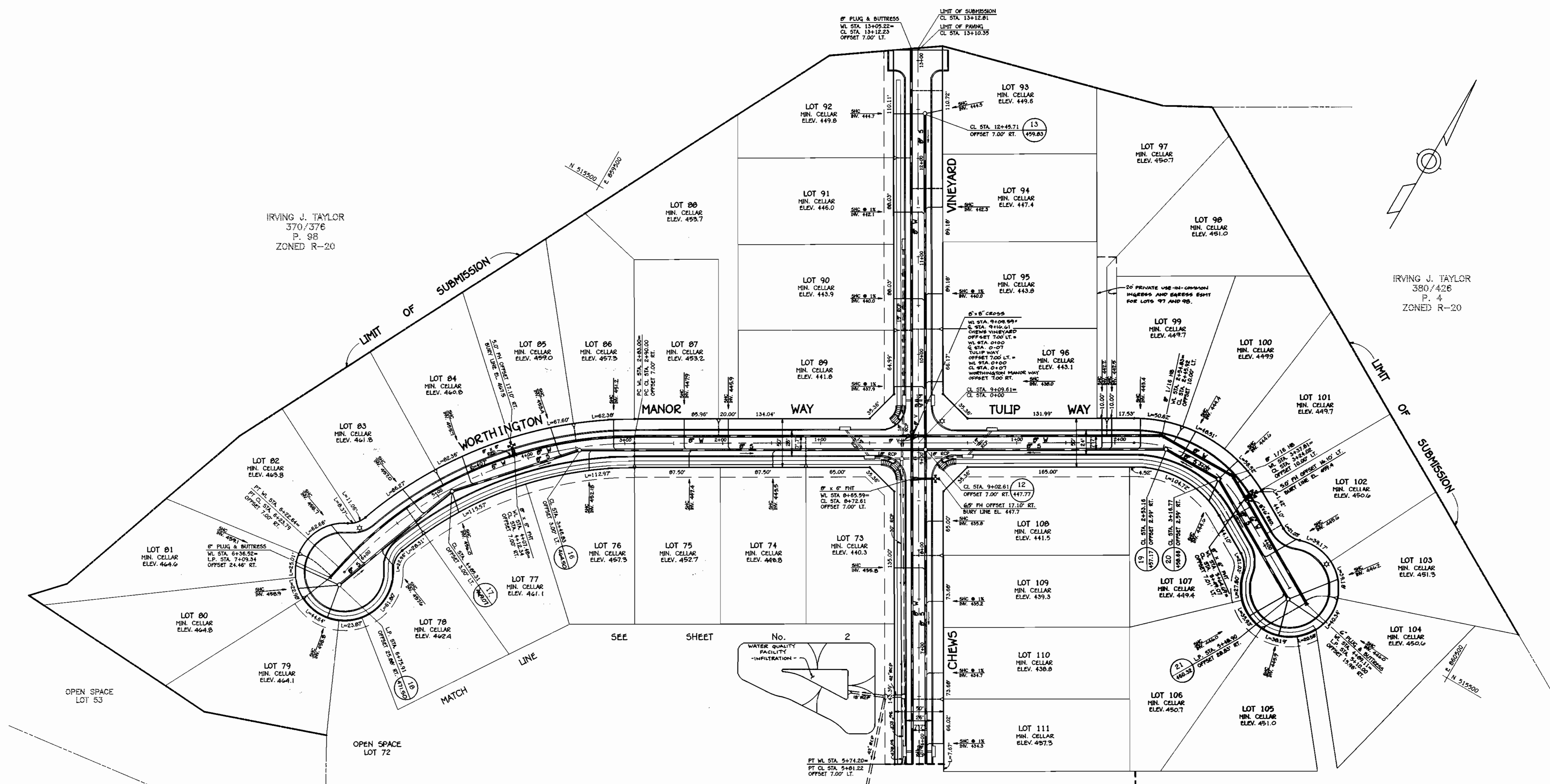
SCALE
1" = 50'

SHEET
2 OF 5

3375 WS/3 WORTHINGTON RESERVE (sect. 2, ph. 2)

IRVING J. TAYLOR
370/376
P. 88
ZONED R-20

IRVING J. TAYLOR
380/426
P. 4
ZONED R-20



HOWARD SOIL CONSERVATION DISTRICT:
REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT
AND MEETS TECHNICAL REQUIREMENTS

Patricia Engler 8/12/94
U.S. SOIL CONSERVATION SERVICE DATE

THIS PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT
CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

John R. Robertson 8/12/94
HOWARD SOIL CONSERVATION DISTRICT DATE

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE
IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE
HOWARD COUNTY STANDARD SPECIFICATIONS AND AS PER
ROAD CONSTRUCTION PLANS F-94-102

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Robert J. Brown 8/15/94
DIRECTOR OF PUBLIC WORKS DATE

Robert J. Brown 8/15/94
CHIEF, BUREAU OF ENGINEERING DATE

Robert J. Brown 8/15/94
CHIEF, BUREAU OF UTILITIES DATE

Robert J. Brown 8/15/94
CHIEF, LAND DEVELOPMENT DIVISION DATE

TSA GROUP, INC.
planning • engineering • surveying
8480 Baltimore National Pike • Suite 418
Ellicott City, Maryland 21043

| | | | | |
|---------------|--------|---|---|---------|
| DES: JME, DRK | D.B.T. | △ | RANGE SERVICE WORTHINGTON MANOR WAY & TULIP WAY (TAKE OFF D.I.P.) | 11-9-94 |
| DRN: DRK, DBT | | | | |
| CHK: JME | | | | |
| DATE: 5-6-94 | | | | |
| 7-27-94 | BY NO. | | REVISIONS | DATE |

PLAN OF
WATER AND SEWER MAINS

600 SCALE MAP NO. 31

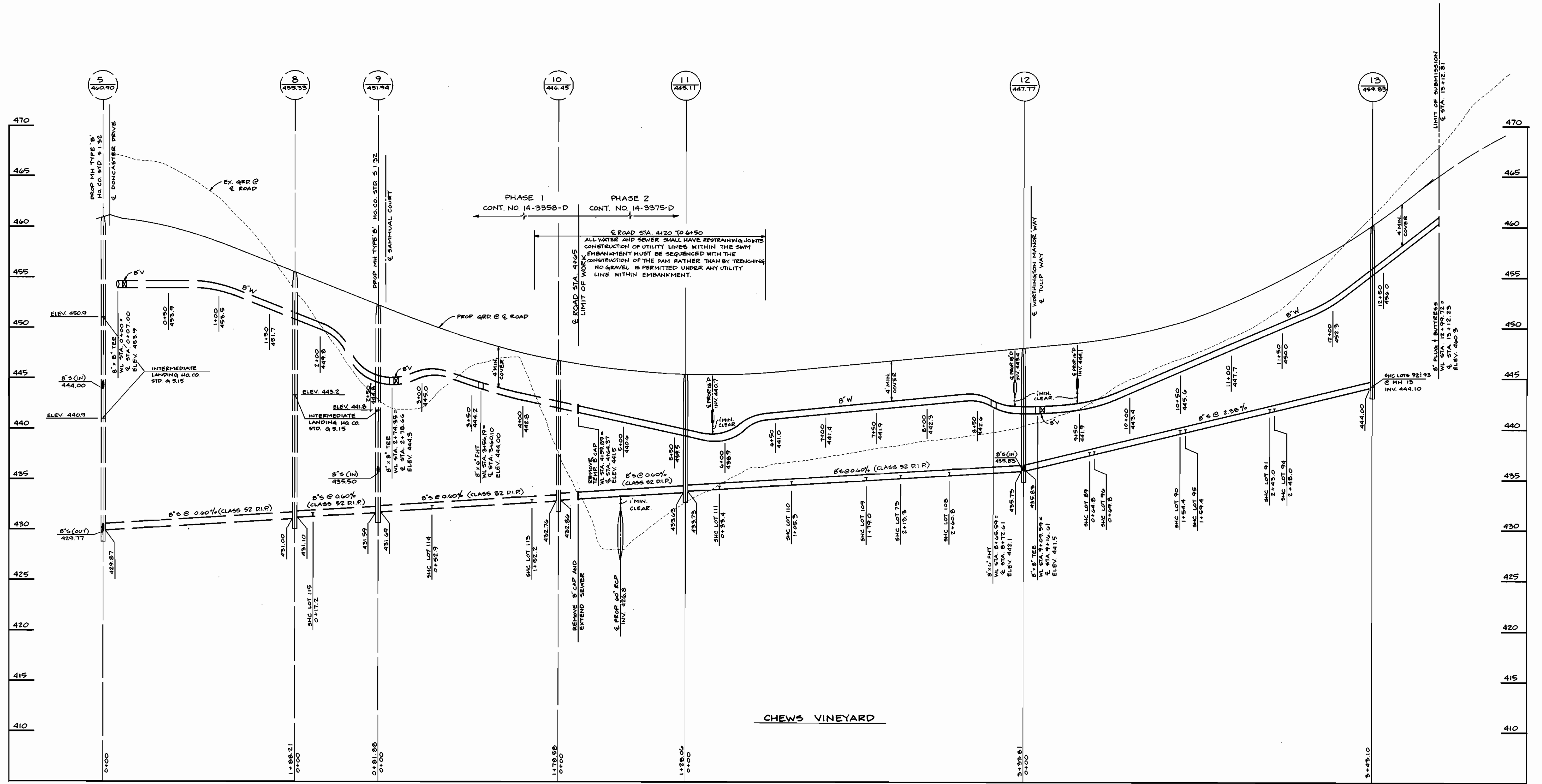
BLOCK No. 2

WORTHINGTON RESERVE
SECTION 2 - PHASE 2
LOTS 73-111
ELECTION DISTRICT NO. 2
CONTRACT NO. 14-3375-D

SCALE
1" = 50'

SHEET
3 OF 5

3375 ws/4 WORTHINGTON RESERVE (sect. 2, ph. 2)



DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
 Director of Public Works: *James A. Lewis* 8/15/94
 Chief, Bureau of Engineering: *Richard P. ...* 8/15/94
 Chief, Bureau of Utilities: *Robert ...* 8-4-94
 Chief, Land Development Division: *Michael ...* 8/15/94

TSA GROUP, INC.
 planning • engineering • surveying
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John ...

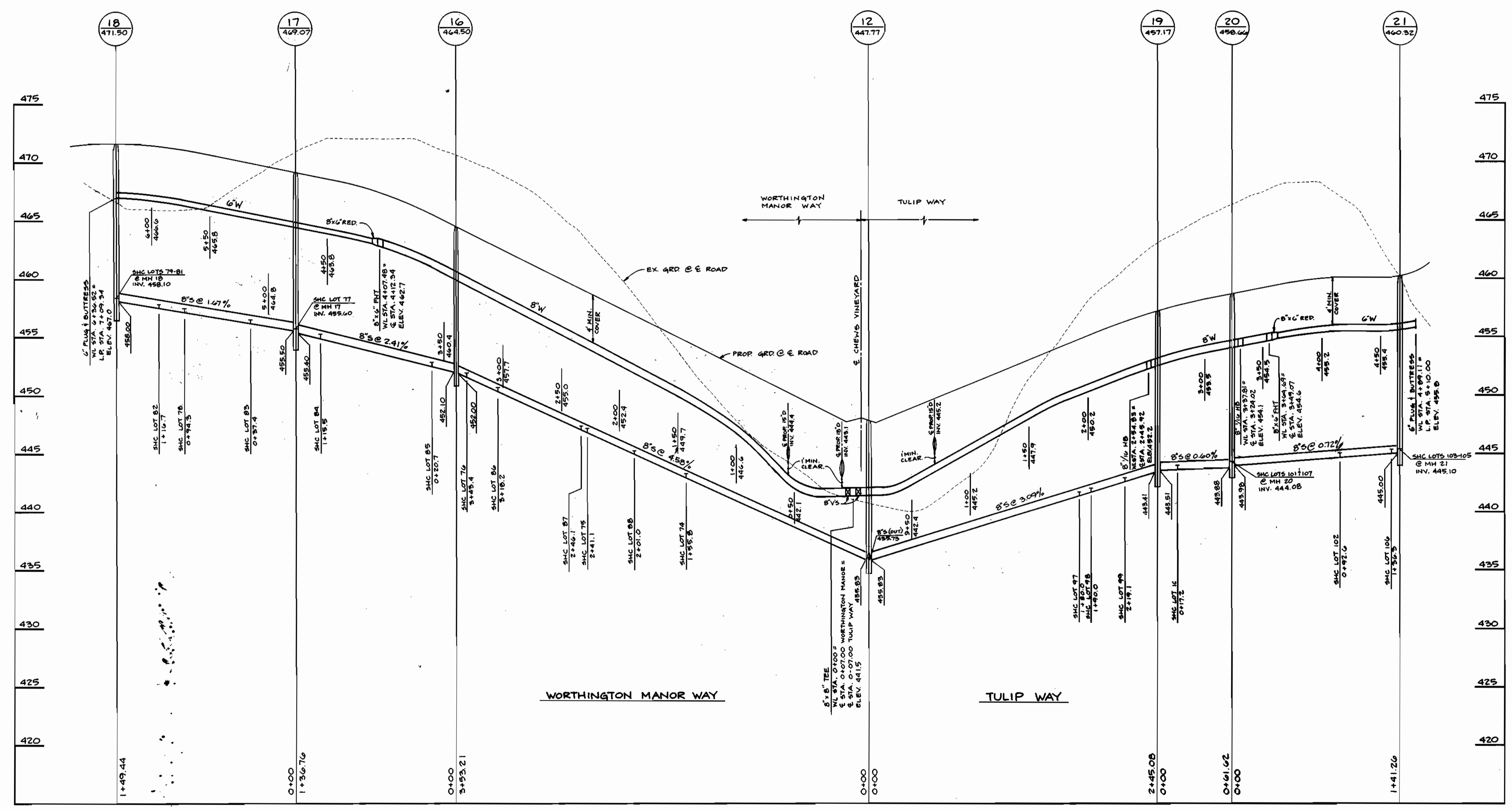
| | | | | |
|-------|----------|----|-----|-----------|
| DES: | JME, DRK | | | |
| DRN: | DBT | | | |
| CHK: | JME | | | |
| DATE: | 5-6-94 | | | |
| | 7-27-94 | BY | NO. | REVISIONS |

PROFILES OF
 WATER & SEWER MAINS
 600 SCALE MAP NO. 31
 BLOCK NO. 2

WORTHINGTON RESERVE
 SECTION 2 - PHASE 2
 LOTS 73 - 111
 ELECTION DISTRICT NO. 2
 CONTRACT NO. 14-3375-D

SCALE
 1" = 50' HORIZ.
 1" = 5' VERT.
 SHEET
 4 OF 5

3375 WS/5 WORTHINGTON RESERVE (sect. 2, Ph. 2)



DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
 Director of Public Works: James P. Shaw
 Chief, Bureau of Engineering: [Signature] 8/15/94
 Chief, Bureau of Utilities: [Signature] 8-4-94
 Chief, Land Development Division: [Signature] 8/15/94

TSA GROUP, INC.
 planning • engineering • surveying
 2420 Baltimore National Pike • Suite 418
 Ellicott City, Maryland 21043
 [Signature]

| | | |
|---------------|--------|--|
| DES: JME, DRK | DBT | RAISE SEWER WORTHINGTON MANOR WAY & TULIP WAY (TAKE OFF DLR) (11-9-94) |
| DRN: DBT | | |
| CHK: JME | | |
| DATE: 5-6-94 | | |
| 7-27-94 | BY NO. | REVISIONS |

PROFILES OF
 WATER & SEWER MAINS
 600 SCALE MAP NO. 31
 BLOCK NO. 2

WORTHINGTON RESERVE
 SECTION 2 - PHASE 2
 LOTS 73-111
 ELECTION DISTRICT NO. 2
 CONTRACT NO. 14-3375-D

SCALE
 1" = 50' HORIZ.
 1" = 5' VERT.
 SHEET
 5 OF 5

| FROM | TO | DISTANCE | SEWER HOUSE CONN. | AS-BUILT | DISTANCE |
|---------|----------------|----------|-------------------|----------|----------|
| LOT 73 | W.H.C. LOT 74 | 4.7' | ± 6" F.H. V. | 90.6' | |
| | 8' V. | 105' | W.H.C. - LOT 106 | 53.0' | |
| | I-11 | 62.5' | S.H.C. - " | 71.2' | |
| LOT 74 | S.H.C. LOT 74 | 31.5' | " - " 75 | 85.6' | |
| | " " 88 | 92.6' | " - " 88 | 68.8' | |
| LOT 75 | W.H.C. " 76 | 4.6' | W.H.C. - " 75 | 53.6' | |
| | S.M.H. 16 | 64.4' | S.H.C. - " 87 | 51.9' | |
| LOT 76 | S.H.C. LOT 76 | 45.5' | S.M.H. 16 | 25.0' | |
| | S.M.H. 16 | 60.6' | F.H. V. | 76.8' | |
| LOT 77 | " 17 | 48.6' | S.M.H. 17 | 22.8' | |
| | W.H.C. LOT 78 | 4.7' | W.H.C. LOT 17 | 56.7' | |
| LOT 78 | S.M.H. 17 | 52.6' | S.H.C. " 79 | 75.6' | |
| | S.H.C. LOT 78 | 44.3' | S.M.H. 18 | 88.7' | |
| | S.M.H. 18 | 76.7' | | | |
| LOT 79 | W.H.C. LOT 80 | 5.1' | S.M.H. 18 | 37.5' | |
| | S.M.H. 18 | 40.0' | W.H.C. LOT 79 | 46.1' | |
| | S.H.C. LOT 80 | 13.1' | | | |
| LOT 80 | " " " | 8.1' | S.H.C. LOT 81 | 23.2' | |
| | S.M.H. 16 | 41.3' | S.M.H. 18 | 43.6' | |
| LOT 81 | W.H.C. LOT 82 | 5.3' | W.H.C. LOT 81 | 11.2' | |
| | S.M.H. 18 | 52.6' | S.M.H. 18 | 50.0' | |
| LOT 82 | " " " | 54.4' | " " " | 63.0' | |
| | S.H.C. LOT 82 | 42.3' | S.H.C. LOT 83 | 72.6' | |
| LOT 83 | W.H.C. " 84 | 4.7' | W.H.C. " " | 44.6' | |
| | S.M.H. 17 | 28.6' | S.M.H. 17 | 55.6' | |
| | | | W.H.C. LOT 77 | 48.8' | |
| LOT 84 | S.H.C. LOT 84 | 28.6' | S.M.H. 17 | 39.2' | |
| | S.M.H. 17 | 27.4' | 6" F.H. V. | 54.6' | |
| | | | ± F.H. | 52.3' | |
| LOT 85 | W.H.C. LOT 86 | 4.6' | ± 6" V. | 46.0' | |
| | S.M.H. 18 | 27.0' | ± F.H. | 43.7' | |
| | | | W.H.C. LOT 85 | 21.6' | |
| | | | S.M.H. 18 | 35.3' | |
| LOT 86 | S.H.C. LOT 86 | 38.9' | " " | 48.5' | |
| | S.M.H. 16 | 26.5' | S.H.C. LOT 87 | 71.8' | |
| LOT 87 | S.H.C. LOT 88 | 13.7' | W.H.C. " " | 33.9' | |
| | W.H.C. " " | 5.0' | " " 75 | 10.2' | |
| | S.H.C. " 75 | 58.7' | | | |
| LOT 88 | " " 88 | 8.7' | S.H.C. LOT 74 | 68.8' | |
| | " " 75 | 61.6' | " " 75 | 65.7' | |
| LOT 89 | W.H.C. " 90 | 4.3' | 8" V. | 55.0' | |
| | " " 96 | 50.3' | W.H.C. LOT 89 | 53.0' | |
| | | | S.M.H. 12 | 75.6' | |
| | | | ± I-8 | 18.8' | |
| LOT 90 | S.H.C. LOT 90 | 32.1' | S.H.C. LOT 91 | 81.8' | |
| | W.H.C. " 95 | 50.3' | W.H.C. " 95 | 61.4' | |
| | | | S.H.C. " " | 53.2' | |
| LOT 91 | W.H.C. LOT 92 | 5.0' | W.H.C. " 91 | 51.8' | |
| | " " 94 | 57.5' | " " 94 | 56.9' | |
| | S.M.H. 13 | 39.1' | | | |
| LOT 92 | S.H.C. LOT 92 | 44.0' | S.M.H. 13 | 34.0' | |
| | S.M.H. 13 | 55.2' | W.H.C. LOT 93 | 59.0' | |
| | W.H.C. LOT 94 | 60.3' | | | |
| LOT 93 | S.M.H. 13 | 28.3' | S.M.H. 13 | 19.8' | |
| | S.H.C. LOT 93 | 20.7' | W.H.C. LOT 92 | 69.0' | |
| | " " 92 | 59.0' | " " 94 | 79.1' | |
| LOT 94 | " " 94 | 16.0' | | | |
| | W.H.C. " 91 | 57.6' | S.H.C. LOT 95 | 89.8' | |
| | S.H.C. " " | 56.8' | W.H.C. " 91 | 52.0' | |
| LOT 95 | W.H.C. " 96 | 4.6' | " " 95 | 34.7' | |
| | " " 90 | 50.3' | " " 90 | 61.6' | |
| | S.H.C. " 90 | 61.4' | S.H.C. " " | 53.2' | |
| | W.H.C. " 89 | 50.6' | | | |
| LOT 96 | S.H.C. " 96 | 52.2' | 8" V. | 62.3' | |
| | W.H.C. " 89 | 50.2' | S.H.C. LOT 89 | 82.5' | |
| | " " 90 | 50.3' | S.M.H. 12 | 71.1' | |
| | | | ± I-9 | 22.8' | |
| LOT 97 | W.H.C. " 98 | 5.2' | W.H.C. LOT 97 | 3.2' | |
| | S.M.H. 19 | 74.4' | S.M.H. 19 | 76.8' | |
| LOT 98 | S.H.C. LOT 98 | 3.9' | S.H.C. LOT 99 | 28.0' | |
| | S.M.H. 19 | 69.8' | W.H. 19 | 66.3' | |
| LOT 99 | W.H.C. LOT 100 | 6.8' | W.H.C. LOT 99 | 41.1' | |
| | S.M.H. 19 | 26.2' | S.M.H. 19 | 44.0' | |
| | " 20 | 66.8' | | | |
| LOT 100 | S.H.C. LOT 100 | 10.9' | S.M.H. 19 | 34.6' | |
| | S.M.H. 19 | 27.8' | " 20 | 55.2' | |
| | " 20 | 61.4' | S.H.C. LOT 101 | 53.3' | |
| LOT 101 | ± F.H. | 19.1' | W.H.C. " " | 21.8' | |
| | W.H.C. LOT 102 | 51.9' | S.M.H. 20 | 28.8' | |
| | S.M.H. 20 | 34.6' | ± F.H. | 38.0' | |
| LOT 102 | S.H.C. LOT 102 | 21.8' | S.H.C. LOT 103 | 58.8' | |
| | ± F.H. | 42.4' | ± F.H. | 64.1' | |
| | ± S.M.H. 11 | 76.6' | S.M.H. 21 | 62.2' | |
| LOT 103 | W.H.C. LOT 104 | 5.5' | " " | 56.4' | |
| | S.H.C. " " | 31.7' | W.H.C. LOT 103 | 18.2' | |
| | S.M.H. 21 | 53.7' | | | |
| LOT 104 | " " | 52.7' | S.H.C. LOT 105 | 52.2' | |
| | S.H.C. LOT 104 | 26.4' | S.M.H. 21 | 41.4' | |
| LOT 105 | W.H.C. " 106 | 5.5' | W.H.C. LOT 105 | 15.2' | |
| | S.H.C. " " | 23.1' | S.M.H. 21 | 41.5' | |
| | S.M.H. 21 | 41.6' | | | |

| FROM | TO | DISTANCE | SEWER HOUSE CONN. | AS-BUILT | DISTANCE |
|---------|------------------|----------|-------------------|----------|----------|
| LOT 106 | S.H.C. - LOT 106 | 17.6' | ± S.M.H. 21 | 42.3' | |
| | " " 105 | 20.2' | S.H.C. - LOT 105 | 37.1' | |
| | ± S.M.H. 21 | 40.8' | | | |
| LOT 107 | S.H.C. LOT 107 | 26.1' | F.H. V. | 38.8' | |
| | F.H. V. | 34.0' | ± F.H. | 47.8' | |
| | ± S.M.H. 20 | 45.9' | ± S.M.H. 20 | 26.8' | |
| LOT 108 | W.H.C. LOT 109 | 5.4' | ± F.H. | 42.4' | |
| | F.H. V. | 80.4' | W.H.C. LOT 108 | 34.1' | |
| | ± F.H. | 75.6' | F.H. V. | 51.8' | |
| LOT 109 | S.H.C. LOT 109 | 44.3' | S.H.C. LOT 110 | 74.2' | |
| | " " 73 | 52.1' | " " 73 | 62.9' | |
| | ± F.H. | 81.0' | | | |
| LOT 110 | W.H.C. LOT 111 | 4.7' | W.H.C. LOT 110 | 24.6' | |
| LOT 111 | S.H.C. " " | 43.5' | ± S.M.H. 11 | 38.5' | |
| | ± S.M.H. 11 | 78.6' | | | |

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

DIRECTOR OF PUBLIC WORKS _____ DATE _____
CHIEF, BUREAU OF ENGINEERING _____ DATE _____

DES: _____
DRN: _____
CHK: _____
DATE: _____

BY NO. _____ REVISION _____ DATE _____

AS - BUILTS FOR
WATER AND SEWER

600' SCALE MAP NO. 31 BLOCK NO. 2

WORTHINGTON RESERVE
SECTION 2 PHASE 2
LOTS 73-111
ELECTION DISTRICT NO. 2
CONTRACT NO. 14 - 3375 - D

SCALE AS SHOWN
SHEET 5A OF 5

BENCH MARKS (NAD 27)

HO. CO. #2944001 ELEV. 528.211
 CONC. MONUMENT AT SURFACE, ON THE EAST SIDE OF DONCASTER DRIVE SOUTH OF ROUNDHILL ROAD.
 N 513669.929 E 050664.260

HO. CO. #2944002 ELEV. 535.366
 CONC. MONUMENT 0.1' ABOVE SURFACE, NEAR NE COR. OF LOT, HOUSE #4587 ROUNDHILL RD. 220' ± NORTH OF ROUNDHILL RD. CENTERLINE.
 N 514196.358 E 050596.309

PUBLIC WATER AND SEWER EXTENSIONS

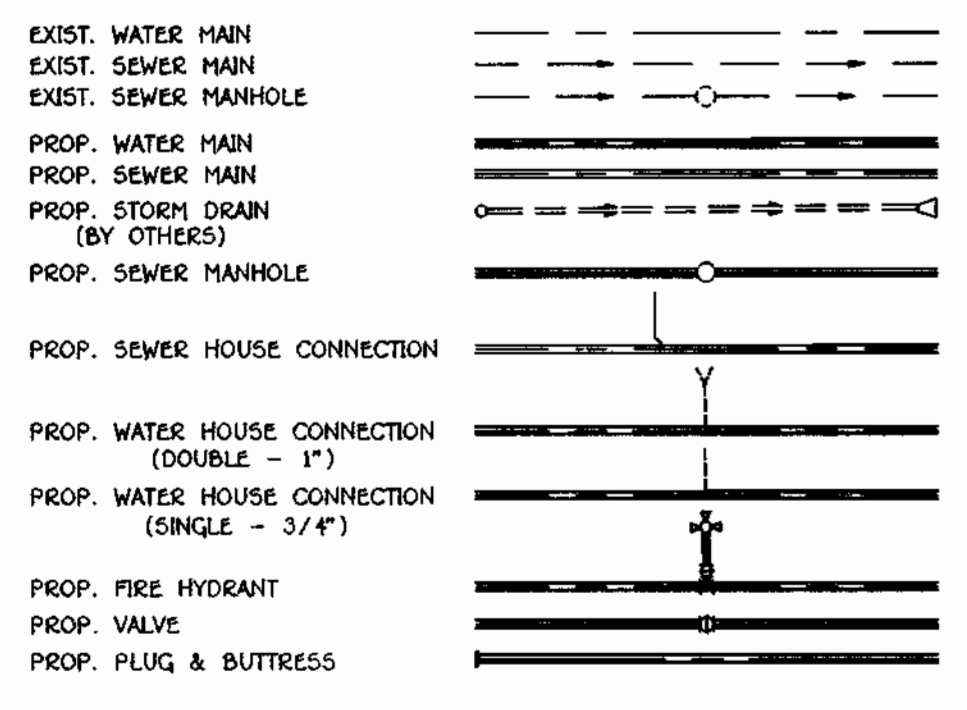
WORTHINGTON RESERVE SECTION TWO PHASE TWO

2nd ELECTION DISTRICT

HOWARD COUNTY, MARYLAND

CONTRACT No. 14-3375-D

LEGEND



| LOT No. | STATION @ R/W | ROAD | LOT No. | STATION @ R/W | ROAD |
|---------|---------------|-----------------|------------------|------------------|-----------------------|
| 89-90 | 10+24.6 | CHEWES VINEYARD | 75-74 | 1+15.0 | WORTHINGTON MANOR WAY |
| 91-92 | 12+00.7 | | 75-76 | 2+90.0 | |
| 93 | 12+49.5 | | 77-78 | 5+33.0 | |
| 94 | 11+40.6 | | 79-80 | L.P. STA. 7+01.3 | |
| 95-96 | 10+28.8 | | 81-82 | L.P. STA. 7+39.7 | |
| 105-107 | 7+24.6 | | 83-84 | 4+99.9 | |
| 110-111 | 6+47.2 | | 85-86 | 3+48.7 | |
| 113 | 3+70.0 | | 87-88 | 2+04.0 | |
| 114 | 3+50.0 | | 89-90 | 1+52.0 | |
| 115 | 1+75.8 | | 99-100 | 2+61.7 | |
| | | 101 | 3+34.0 | | |
| | | 102 | 3+90.9 | | |
| | | 103-104 | L.P. STA. 4+88.0 | | |
| | | 105-106 | L.P. STA. 5+67.3 | | |
| | | 107 | 3+52.3 | | |

NOTE: SEE PROFILES FOR SEWER HOUSE CONNECTION STATIONS.

| ITEMS | QUANTITIES ESTIMATED | AS-BUILT | | |
|------------------|----------------------|------------|-----------|-----------------|
| | | QUANTITIES | TYPE | MANUF./SUPPLIER |
| 8" WATER | 1,620 L.F. | 1,822 L.F. | 8" D.I.P. | SHUFFIN PIPE |
| 8" WATER | 363 L.F. | 363 L.F. | " | " |
| 8" VALVES | 3 EA. | 3 EA. | " | " |
| 8" FIRE HYDRANTS | 3 EA. | 3 EA. | " | " |
| 3" V.C. | 413 L.F. | 413 L.F. | " | " |
| 3" V.C. | 246 L.F. | 246 L.F. | " | " |
| 8" SEWER | 1,875 L.F. | 1,875 L.F. | " | " |
| MANHOLES | 9 | 9 | " | " |
| 4" S.H.C. | 1,194 L.F. | 1,194 L.F. | " | " |

NAME OF UTILITY CONTRACTOR: _____
 SURVEY AND DRAFTING DIVISION AS-BUILT DATE: _____

| No. | DESCRIPTION |
|-----|-----------------------------------|
| 1 | TITLE SHEET |
| 2 | PLAN OF WATER AND SEWER MAINS |
| 3 | PLAN OF WATER AND SEWER MAINS |
| 4 | PROFILES OF WATER AND SEWER MAINS |
| 5 | PROFILES OF WATER AND SEWER MAINS |

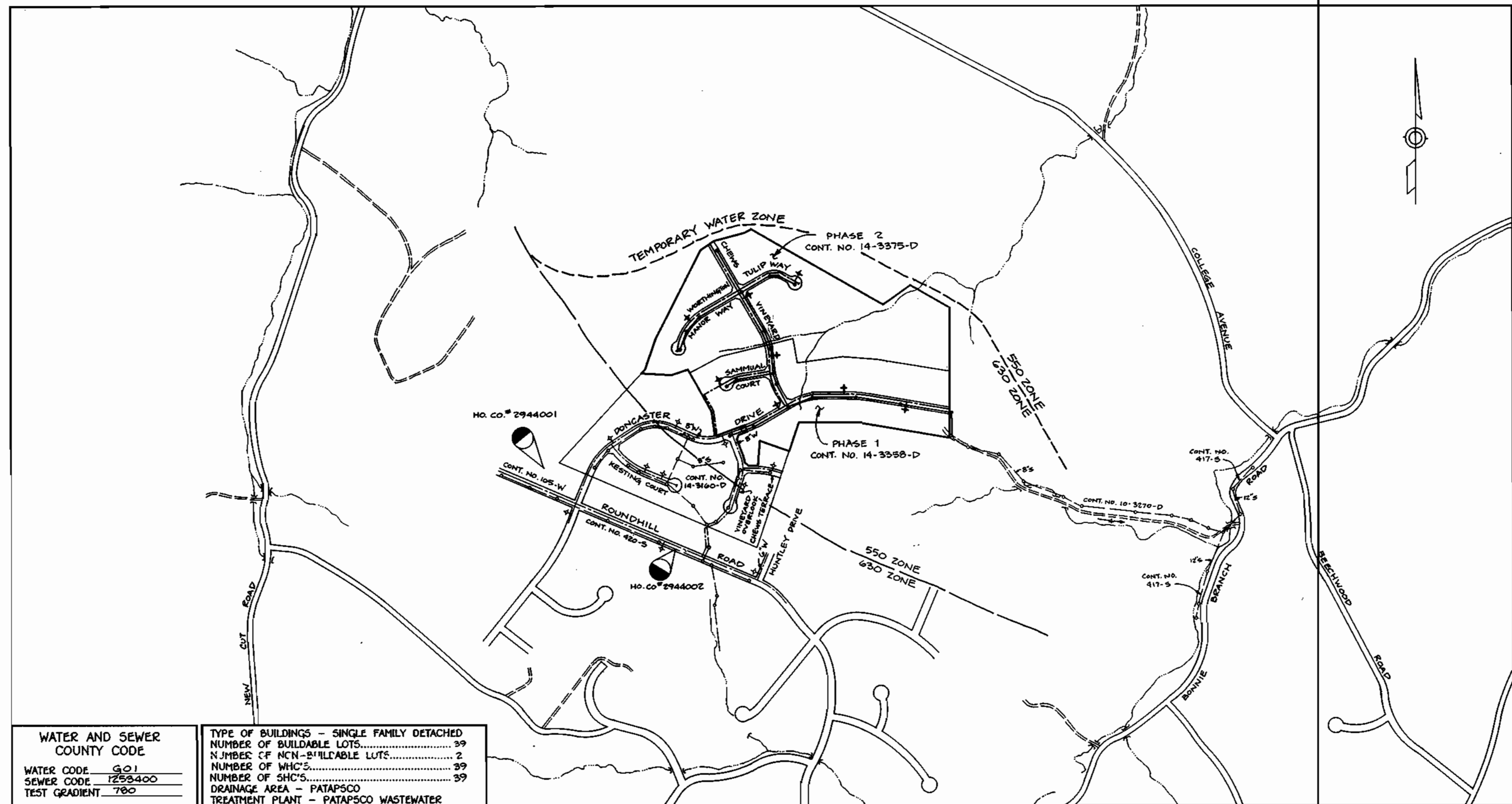
HOWARD SOIL CONSERVATION DISTRICT
 REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS

Patricia Engler 8/12/94
 U.S. SOIL CONSERVATION SERVICE

THIS PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

John R. Robertson 8/12/94
 HOWARD SOIL CONSERVATION DISTRICT

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE HOWARD COUNTY STANDARD SPECIFICATIONS AND AS PER ROAD CONSTRUCTION PLANS F-94-102



| | |
|-----------------------------|--|
| WATER AND SEWER COUNTY CODE | TYPE OF BUILDINGS - SINGLE FAMILY DETACHED |
| WATER CODE 601 | NUMBER OF BUILDABLE LOTS 99 |
| SEWER CODE 1253400 | NUMBER OF NON-BUILDABLE LOTS 2 |
| TEST GRADIENT 780 | NUMBER OF WHCS 99 |
| | NUMBER OF SHCS 99 |
| | DRAINAGE AREA - PATAPSCO |
| | TREATMENT PLANT - PATAPSCO WASTEWATER |

VICINITY MAP
 SCALE: 1" = 600'

NOTES:

- CLASS 52 D.I.P. TO BE USED BETWEEN MH#5 AND EXISTING MH#209, BETWEEN MH#10 AND MH#5, UNLESS OTHERWISE NOTED.
- PRESSURE REDUCING VALVES TO BE PROVIDED ON ALL WATER HOUSE CONNECTIONS.

GENERAL NOTES
 PART 1 - GENERAL

- APPROXIMATE LOCATION OF EXISTING MAINS ARE SHOWN. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT EXISTING MAINS AND SERVICES AND MAINTAIN UNINTERRUPTED SUPPLY. ANY DAMAGE INCURRED SHALL BE REPAIRED IMMEDIATELY TO THE SATISFACTION OF THE ENGINEER AT THE CONTRACTOR'S EXPENSE.
- ALL HORIZONTAL CONTROLS ARE BASED ON MARYLAND STATE COORDINATES.
- ALL VERTICAL CONTROLS ARE BASED ON U.S.G.S. DATA.
- ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS.
- CLEAR ALL UTILITIES BY A MINIMUM OF 6". CLEAR ALL POLES BY 2'-0" MINIMUM OR TUNNEL AS REQUIRED. THE OWNER HAS CONTACTED THE UTILITY COMPANIES AND HAS MADE ARRANGEMENTS FOR BRACING OF POLES AS SHOWN ON THE DRAWINGS. IN THE EVENT THE CONTRACTOR'S WORK REQUIRES THE BRACING OF ADDITIONAL POLES, ANY COST INCURRED BY THE OWNER FOR BRACING OF ADDITIONAL POLES OR DAMAGES SHALL BE DEDUCTED FROM MONEY OWED THE CONTRACTOR. THE CONTRACTOR SHALL COORDINATE WITH THE UTILITY COMPANIES TO SCHEDULE THE BRACING OF THE POLES.
- FOR DETAILS NOT SHOWN ON THE DRAWINGS, AND FOR MATERIALS AND CONSTRUCTION METHODS USE HOWARD COUNTY DESIGN MANUAL VOLUME IV, STANDARD SPECIFICATIONS AND DETAIL FOR CONSTRUCTION (LATEST EDITION). THE CONTRACTOR SHALL HAVE A COPY OF VOLUME IV ON THE JOB.
- WHERE TEST PITS HAVE BEEN MADE ON EXISTING UTILITIES, THEY ARE NOTED BY THE SYMBOL AT THE LOCATION OF THE TEST PIT. A NOTE OR NOTES CONTAINING THE RESULTS OF THE TEST PIT OR PITS IS INCLUDED ON THE DRAWINGS. EXISTING UTILITIES IN THE VICINITY OF THE PROPOSED WORK FOR WHICH TEST PITS HAVE NOT BEEN DUG SHALL BE LOCATED BY THE CONTRACTOR TWO WEEKS IN ADVANCE OF CONSTRUCTION OPERATIONS AT HIS OWN EXPENSE. CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITY COMPANIES OR AGENCIES AT LEAST FIVE WORKING DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS:
 STATE HIGHWAY ADMINISTRATION.....531-5533
 BALTIMORE GAS & ELECTRIC CO.850-4620
 BALTIMORE GAS & ELECTRIC CO.1-800-257-7777
 UNDERGROUND DAMAGE CONTROL.....787-9068
 MISS UTILITY.....1-800-257-7777
 COLONIAL PIPELINE CO.....795-1390
 HOWARD CO. DEPT. OF PUBLIC WORKS313-4900
 BUREAU OF UTILITIES.....313-4900
- TREES AND SHRUBS ARE TO BE PROTECTED FROM DAMAGE TO MAXIMUM EXTENT. TREES AND SHRUBS LOCATED WITHIN THE CONSTRUCTION STRIP ARE NOT TO BE REMOVED OR DAMAGED BY THE CONTRACTOR. CONTRACTOR SHALL REMOVE TREES, STUMPS AND ROOTS ALONG LINE OF EXCAVATION. PAYMENT FOR SUCH REMOVAL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR CONSTRUCTION OF THE MAIN.
- PLACE REGULATION "MEN WORKING" AND WARNING SIGNS AS REQUIRED TO COMPLY WITH MARYLAND STATE HIGHWAY ADMINISTRATION MANUAL OF TRAFFIC CONTROL FOR HIGHWAY MAINTENANCE OPERATIONS.
- THE CONTRACTOR SHALL NOTIFY THE BUREAU OF HIGHWAYS, HOWARD COUNTY, AT (410) 313-2450 AT LEAST FIVE WORKING DAYS BEFORE ANY OPEN CUT OF ANY COUNTY ROAD OR BORING/JACKING OPERATION IN COUNTY ROADS FOR LAYING WATER/SEWER MAINS OR HOUSE CONNECTIONS. THE APPROVAL OF THESE DRAWINGS WILL CONSTITUTE COMPLIANCE WITH DPW REQUIREMENTS PER SECTION 18.114(d) OF THE HOWARD COUNTY CODE.

PART 2 - WATER

- ALL WATER MAINS TO BE D.I.P. CLASS 52 UNLESS OTHERWISE NOTED.
- TOPS OF ALL WATER MAINS TO HAVE A MINIMUM OF 3-1/2" COVER UNLESS OTHERWISE NOTED.
- VALVES ADJACENT TO TEES SHALL BE STRAPPED TO TEES.
- ALL FITTINGS SHALL BE BUTTRESSED OR ANCHORED WITH CONCRETE IN ACCORDANCE WITH THE STANDARD DETAILS UNLESS OTHERWISE PROVIDED FOR ON THE DRAWINGS.
- FIRE HYDRANTS SHALL BE SET TO THE BURY LINE ELEVATIONS SHOWN ON THE DRAWINGS. ALL FIRE HYDRANTS SHALL BE RESTRAINED AND BUTTRESSED WITH CONCRETE IN ACCORDANCE WITH STANDARD DETAILS. SOIL AROUND THE FIRE HYDRANT SHALL BE COMPACTED IN ACCORDANCE WITH SECTION 1000 AND 1005 OF THE STANDARD SPECIFICATIONS. THE CONTRACTOR SHALL NOT OPERATE ANY WATER MAIN VALVES ON THE EXISTING WATER SYSTEM.
- ALL WATER HOUSE CONNECTIONS SHALL BE FOR INSIDE METER SETTING UNLESS OTHERWISE NOTED ON PLANS OR IN SPECIFICATIONS.

PART 3 - SEWER

- ALL SEWER MAINS SHALL BE DIP, RCP, VCPX, CSPX, RCP AND P.V.C. UNLESS OTHERWISE NOTED.
- ALL MANHOLES SHALL BE 4' - 0" INSIDE DIAMETER UNLESS OTHERWISE NOTED.
- FORCE MAINS SHALL BE D.I.P. ONLY.
- MANHOLES SHOWN WITH 12" AND 16" WALLS ARE FOR BRICK MANHOLES ONLY.
- MANHOLES DESIGNATED W.T. IN PLAN AND PROFILE SHALL HAVE WATERTIGHT FRAME AND COVERS, STANDARD DETAIL G5.52. WHERE WATERTIGHT MANHOLE FRAME AND COVER IS USED, SET TOP OF FRAME 1' - 6" ABOVE FINISHED GRADE UNLESS OTHERWISE NOTED ON THE DRAWINGS.
- HOUSE(S) WITH THE SYMBOL "C.N.S." INDICATES THAT CELLAR CANNOT BE SERVED.

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

James A. ... 8/15/94
 DIRECTOR OF PUBLIC WORKS

Robert ... 8-4-94
 CHIEF, BUREAU OF UTILITIES

TSA GROUP, INC.
 planning • engineering • surveying
 8480 Baltimore National Pike • Suite 418
 Ellicott City, Maryland 21043

| | | |
|---------------|---------|---------------|
| DES: JME, DRK | D.B.T. | DATE: 11-9-94 |
| DRN: DRK, DBT | | |
| CHK: JME | | |
| DATE: 5-6-94 | BY: NO. | |
| DATE: 7-27-94 | | |

TITLE SHEET

600 SCALE MAP NO. 31

BLOCK No. 2

WORTHINGTON RESERVE
 SECTION 2 - PHASE 2
 LOTS 73-111
 ELECTION DISTRICT NO. 2
 CONTRACT NO. 14-3375-D

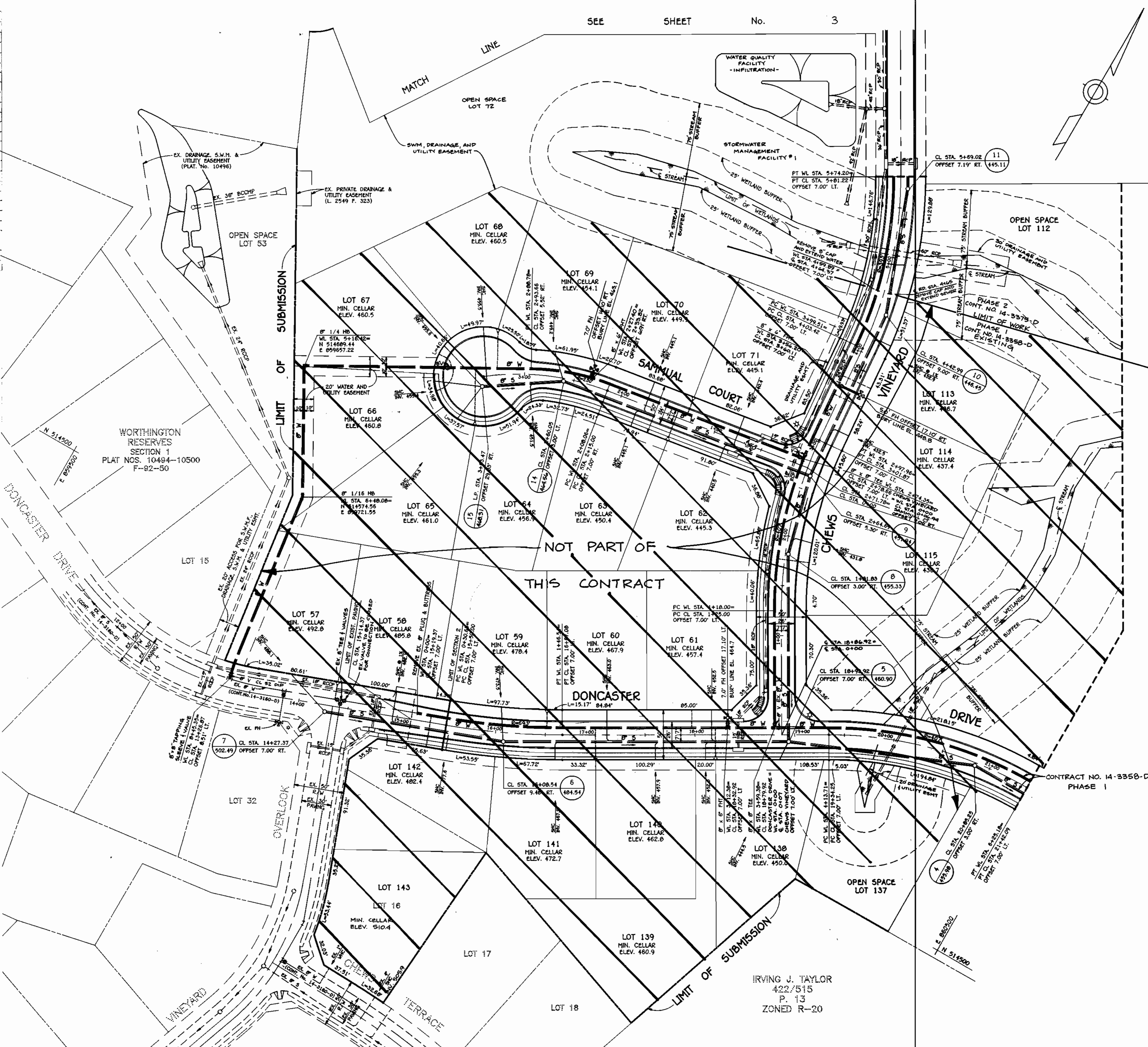
SCALE AS SHOWN

SHEET 1 OF 5

3375 WS/1 WORTHINGTON RESERVE (Sect. 2, Ph. 2)

3375 w3/2 WORTHINGTON RESERVE (sect. 2, ph. 2)

| FROM | TO | LENGTH |
|-----------------|-----------------|--------|
| E.P.H.V. 2549.5 | E.P.H.V. 2549.5 | 43.0 |
| E.P.H.V. 2549.5 | E.P.H.V. 2549.5 | 23.0 |
| E.P.H.V. 2549.5 | E.P.H.V. 2549.5 | 42.1 |
| E.P.H.V. 2549.5 | E.P.H.V. 2549.5 | 4.1 |
| E.P.H.V. 2549.5 | E.P.H.V. 2549.5 | 51.4 |
| E.P.H.V. 2549.5 | E.P.H.V. 2549.5 | 21.2 |
| E.P.H.V. 2549.5 | E.P.H.V. 2549.5 | 4.2 |
| E.P.H.V. 2549.5 | E.P.H.V. 2549.5 | 5.7 |
| E.P.H.V. 2549.5 | E.P.H.V. 2549.5 | 17.3 |
| E.P.H.V. 2549.5 | E.P.H.V. 2549.5 | 47.5 |
| E.P.H.V. 2549.5 | E.P.H.V. 2549.5 | 10.2 |
| E.P.H.V. 2549.5 | E.P.H.V. 2549.5 | 34.2 |
| E.P.H.V. 2549.5 | E.P.H.V. 2549.5 | 24 |
| E.P.H.V. 2549.5 | E.P.H.V. 2549.5 | 4.0 |
| E.P.H.V. 2549.5 | E.P.H.V. 2549.5 | 21.3 |
| E.P.H.V. 2549.5 | E.P.H.V. 2549.5 | 43.7 |
| E.P.H.V. 2549.5 | E.P.H.V. 2549.5 | 50.1 |
| E.P.H.V. 2549.5 | E.P.H.V. 2549.5 | 10.2 |
| E.P.H.V. 2549.5 | E.P.H.V. 2549.5 | 27.7 |
| E.P.H.V. 2549.5 | E.P.H.V. 2549.5 | 18.5 |



HOWARD SOIL CONSERVATION DISTRICT
REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT
AND MEETS TECHNICAL REQUIREMENTS

Patricia Engler 8/15/94
U.S. SOIL CONSERVATION SERVICE DATE

THIS PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT
CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

John P. Roberts 8/15/94
HOWARD SOIL CONSERVATION DISTRICT DATE

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE
IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE
HOWARD COUNTY STANDARD SPECIFICATIONS AND AS PER
ROAD CONSTRUCTION PLANS F-94-102

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

James W. Lewis 8/15/94
DIRECTOR OF PUBLIC WORKS DATE

Paul S. Seaman 8/15/94
CHIEF, BUREAU OF ENGINEERING DATE

Robert S. Seaman 8-4-94
CHIEF, BUREAU OF UTILITIES DATE

John P. Roberts 8/15/94
CHIEF, LAND DEVELOPMENT DIVISION DATE

TSA GROUP, INC.
planning • engineering • surveying
8480 Baltimore National Pike • Suite 418
Ellicott City, Maryland 21043

John P. Roberts

| | | | | | |
|---------------|----|-----|-----------|------|----------------------|
| DES: JME, DRK | | | | | |
| DRN: DRK, DBT | | | | | |
| CHK: JME | | | | | |
| DATE: 5-6-94 | | | | | |
| 7-27-94 | BY | NO. | REVISIONS | DATE | 600 SCALE MAP NO. 31 |

IRVING J. TAYLOR
422/515
P. 13
ZONED R-20

PLAN OF
WATER AND SEWER MAINS

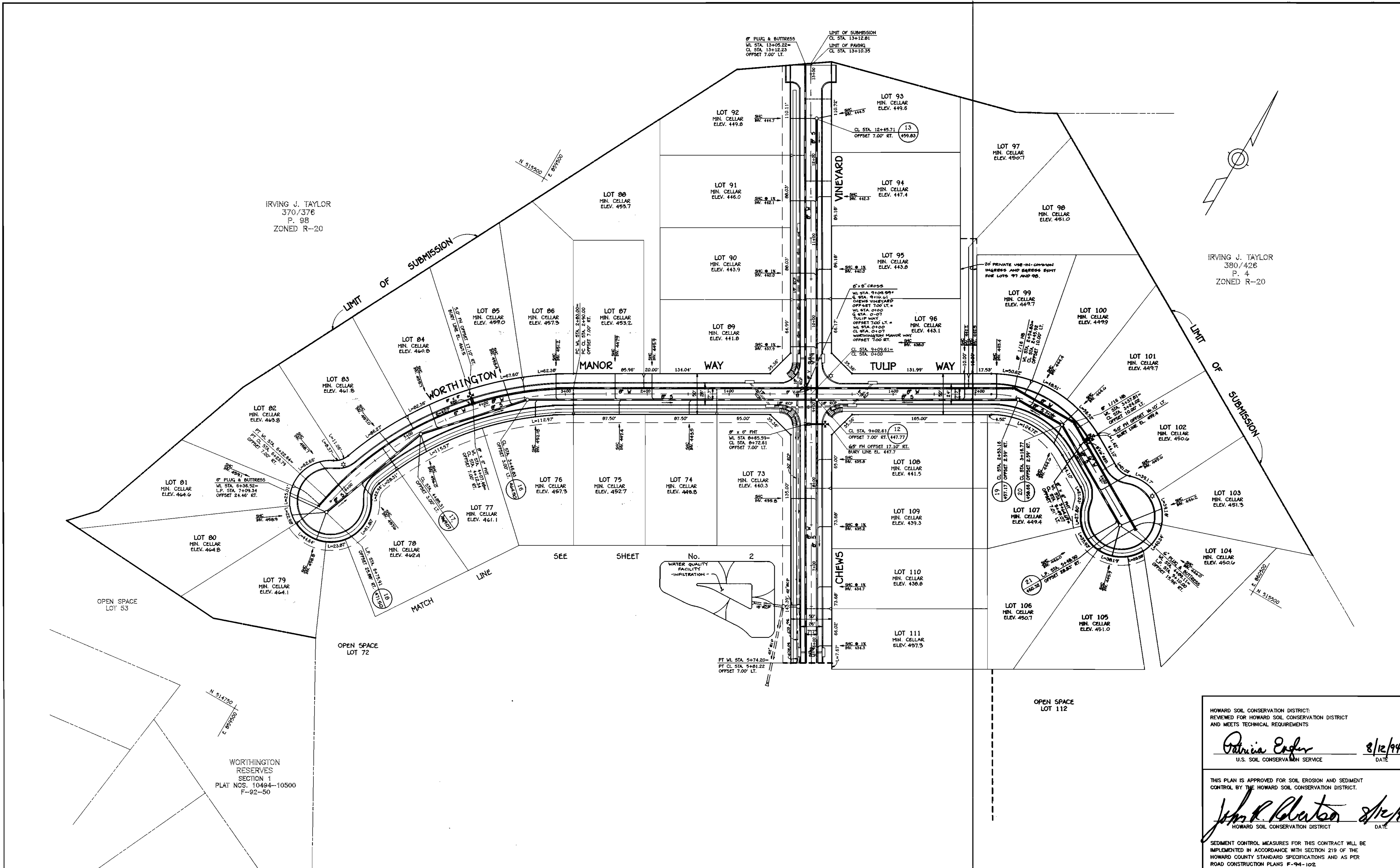
WORTHINGTON RESERVE
SECTION 2 - PHASE 2
LOTS 73 - 111
ELECTION DISTRICT NO. 2

CONTRACT NO. 14-3375-D

SCALE
1" = 50'

SHEET
2 OF 5

3375 WS/3 WORTHINGTON RESERVE (sect. 2, ph. 2)



IRVING J. TAYLOR
370/376
P. 88
ZONED R-20

IRVING J. TAYLOR
380/426
P. 4
ZONED R-20

HOWARD SOIL CONSERVATION DISTRICT:
REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT
AND MEETS TECHNICAL REQUIREMENTS

Patricia Cooper 8/12/94
U.S. SOIL CONSERVATION SERVICE DATE

THIS PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT
CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

John R. Blanton 8/12/94
HOWARD SOIL CONSERVATION DISTRICT DATE

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE
IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE
HOWARD COUNTY STANDARD SPECIFICATIONS AND AS PER
ROAD CONSTRUCTION PLANS F-94-102

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

James J. Shuman 8/15/94
DIRECTOR OF PUBLIC WORKS DATE

Robert J. Brown 8-4-94
CHIEF, BUREAU OF UTILITIES DATE

Robert J. Brown 8/15/94
CHIEF, BUREAU OF ENGINEERING DATE

William A. Brown 8/15/94
CHIEF, LAND DEVELOPMENT DIVISION DATE

TSA GROUP, INC.
planning • engineering • surveying
8480 Baltimore National Pike • Suite 418
Ellicott City, Maryland 21043

John J. Taylor

| | | | |
|---------------|--------|--|---------|
| DES: JME, DRK | D.B.T. | RAISE SEWER WORTHINGTON MANOR WAY (TAKES OFF D.I.P.) | 11-9-94 |
| DRN: DRK, DBT | | | |
| CHK: JME | | | |
| DATE: 5-6-94 | BY NO. | REVISIONS | DATE |
| 7-27-94 | | | |

PLAN OF
WATER AND SEWER MAINS

600 SCALE MAP NO. 31

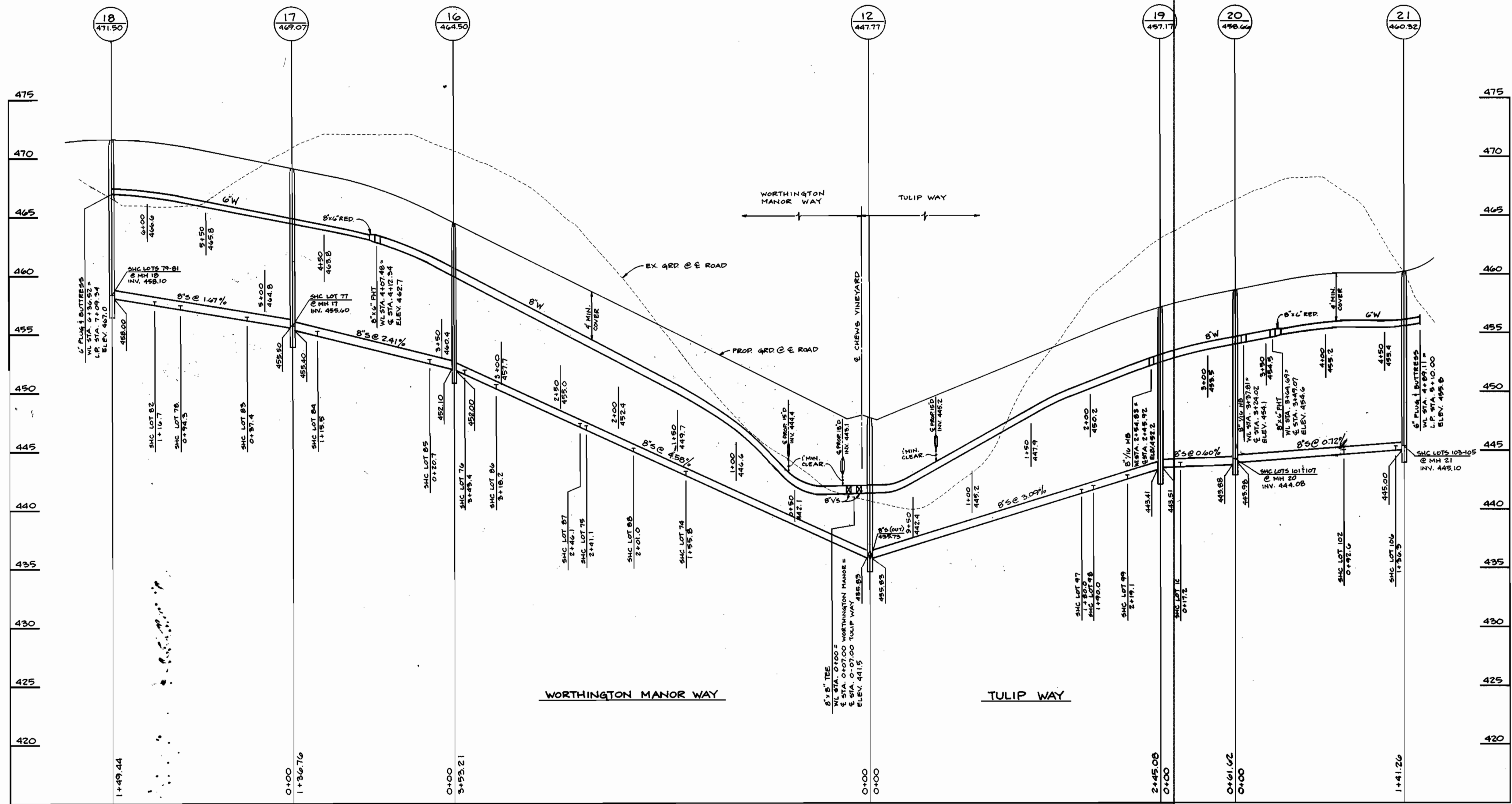
BLOCK No. 2

WORTHINGTON RESERVE
SECTION 2 - PHASE 2
LOTS 73-111
ELECTION DISTRICT NO. 2
CONTRACT NO. 14-3375-D

SCALE
1" = 50'

SHEET
3 OF 5

3375 WS/5 WORTHINGTON RESERVE (Sect. 2, Ph. 2)



DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
 Director of Public Works: *James P. Slaw* 8/15/94
 Chief, Bureau of Engineering: *Robert B. ...* 8/15/94
 Chief, Bureau of Utilities: *Robert B. ...* 8/15/94
 Chief, Land Development Division: *...* 8/15/94

TSA GROUP, INC.
 planning • engineering • surveying
 8400 Baltimore National Pike • Suite 418
 Ellicott City, Maryland 21043

| | |
|---------------|---------------|
| DES: JME, DRK | DATE: 5-6-94 |
| DRN: DBT | DATE: 7-27-94 |
| CHK: JME | |
| BY: NO. | |
| REVISIONS | |

PROFILES OF
 WATER & SEWER MAINS
 600 SCALE MAP NO. 31
 BLOCK NO. 2

WORTHINGTON RESERVE
 SECTION 2 - PHASE 2
 LOTS 73-111
 ELECTION DISTRICT NO. 2
 CONTRACT NO. 14-3375-D

SCALE
 1" = 50' HORIZ.
 1" = 5' VERT.
 SHEET
 5 OF 5

3375 WS/BA WORTHINGTON RESERVE

| WATER HOUSE CONNECTIONS AS-BUILTS | | | SEWER HOUSE CONN. AS-BUILTS | | |
|-----------------------------------|----------------|----------|-----------------------------|----------|--|
| FROM | TO | DISTANCE | TO | DISTANCE | |
| LOT 73 | W.H.C. LOT 74 | 4.7' | 6" F.H. V. | 90.6' | |
| | " " " " | 105' | W.H.C. - LOT 108 | 53.0' | |
| | " " " " | 62.5' | " " " " | 71.2' | |
| LOT 74 | S.H.C. LOT 74 | 31.5' | " " " " | 85.6' | |
| | " " " " | 92.6' | " " " " | 68.8' | |
| LOT 75 | W.H.C. " 76 | 4.6' | W.H.C. " " 75 | 53.6' | |
| | S.M.H. 16 | 64.4' | S.H.C. " " 87 | 51.9' | |
| LOT 76 | S.H.C. LOT 76 | 45.5' | S.M.H. 16 | 25.0' | |
| | S.M.H. 16 | 60.6' | F.H. V. | 76.8' | |
| LOT 77 | " " 17 | 48.6' | S.M.H. 17 | 22.8' | |
| | W.H.C. LOT 78 | 4.7' | W.H.C. LOT 17 | 36.7' | |
| LOT 78 | S.M.H. 17 | 52.6' | S.H.C. " 79 | 75.8' | |
| | S.H.C. LOT 78 | 44.3' | S.M.H. 18 | 88.7' | |
| | S.M.H. 18 | 98.7' | | | |
| LOT 79 | W.H.C. LOT 80 | 5.1' | S.M.H. 18 | 37.5' | |
| | S.M.H. 18 | 40.0' | W.H.C. LOT 79 | 46.1' | |
| | S.H.C. LOT 80 | 13.1' | | | |
| LOT 80 | " " " " | 8.1' | S.H.C. LOT 81 | 23.2' | |
| | S.M.H. 18 | 41.3' | S.M.H. 18 | 43.6' | |
| LOT 81 | W.H.C. LOT 82 | 5.3' | W.H.C. LOT 81 | 11.2' | |
| | S.M.H. 18 | 52.8' | S.M.H. 18 | 50.0' | |
| LOT 82 | " " " " | 54.4' | " " " " | 63.0' | |
| | S.H.C. LOT 82 | 42.3' | S.H.C. LOT 83 | 72.6' | |
| LOT 83 | W.H.C. " 84 | 4.7' | W.H.C. " " " | 44.6' | |
| | S.M.H. 17 | 28.6' | S.M.H. 17 | 58.6' | |
| | | | W.H.C. LOT 77 | 48.8' | |
| LOT 84 | S.H.C. LOT 84 | 28.6' | S.M.H. 17 | 39.2' | |
| | S.M.H. 17 | 27.4' | 6" F.H. V. | 54.8' | |
| | | | 6" F.H. | 52.3' | |
| LOT 85 | W.H.C. LOT 86 | 4.6' | 6" V. | 46.0' | |
| | S.M.H. 16 | 27.0' | 6" F.H. | 43.7' | |
| | | | W.H.C. LOT 85 | 21.6' | |
| | | | S.M.H. 16 | 35.3' | |
| LOT 86 | S.H.C. LOT 86 | 38.9' | " " " " | 48.5' | |
| | S.M.H. 16 | 28.5' | S.H.C. LOT 87 | 71.8' | |
| LOT 87 | S.H.C. LOT 88 | 13.7' | W.H.C. " " " | 33.9' | |
| | W.H.C. " " " | 5.0' | " " " " | 70.2' | |
| | S.H.C. " " 75 | 28.7' | | | |
| LOT 88 | " " " " | 8.7' | S.H.C. LOT 74 | 68.8' | |
| | " " " " | 61.8' | " " " " | 65.7' | |
| LOT 89 | W.H.C. " 90 | 4.3' | 6" V. | 55.0' | |
| | " " " 96 | 50.3' | W.H.C. LOT 89 | 53.0' | |
| | | | S.M.H. 12 | 75.6' | |
| | | | 6" I - 8 | 18.8' | |
| LOT 90 | S.H.C. LOT 90 | 32.1' | S.H.C. LOT 91 | 81.8' | |
| | W.H.C. " 95 | 50.3' | W.H.C. " 95 | 61.4' | |
| | | | S.H.C. " " " | 53.2' | |
| LOT 91 | W.H.C. LOT 92 | 5.0' | W.H.C. " 91 | 31.8' | |
| | " " " 94 | 57.5' | " " " 94 | 56.9' | |
| | S.M.H. 13 | 39.1' | | | |
| LOT 92 | S.H.C. LOT 92 | 44.0' | S.M.H. 13 | 34.0' | |
| | S.M.H. 13 | 55.2' | W.H.C. LOT 93 | 59.0' | |
| | W.H.C. LOT 94 | 60.3' | | | |
| LOT 93 | S.M.H. 13 | 28.3' | S.M.H. 13 | 19.8' | |
| | S.H.C. LOT 93 | 20.7' | W.H.C. LOT 92 | 69.0' | |
| | " " " 92 | 59.0' | " " " 94 | 79.1' | |
| LOT 94 | " " " 94 | 18.0' | | | |
| | W.H.C. " 91 | 57.6' | S.H.C. LOT 95 | 89.8' | |
| | S.H.C. " " " | 56.8' | W.H.C. " 91 | 52.0' | |
| LOT 95 | W.H.C. " 96 | 4.6' | " " " 95 | 34.7' | |
| | " " " 90 | 50.3' | " " " 90 | 61.6' | |
| | S.H.C. " 90 | 61.4' | S.H.C. " " " | 53.2' | |
| | W.H.C. " 89 | 50.6' | | | |
| LOT 96 | S.H.C. " 96 | 57.2' | 6" V. | 62.3' | |
| | W.H.C. " 89 | 50.2' | S.H.C. LOT 89 | 52.5' | |
| | " " " 90 | 50.3' | S.M.H. 12 | 71.1' | |
| | | | 6" I - 9 | 22.8' | |
| LOT 97 | W.H.C. " 98 | 5.2' | W.H.C. LOT 97 | 3.2' | |
| | S.M.H. 19 | 74.4' | S.M.H. 19 | 76.8' | |
| LOT 98 | S.H.C. LOT 98 | 3.9' | S.H.C. LOT 99 | 28.0' | |
| | S.M.H. 19 | 69.8' | M.H. 19 | 66.3' | |
| LOT 99 | W.H.C. LOT 100 | 6.8' | W.H.C. LOT 99 | 41.1' | |
| | S.M.H. 19 | 26.2' | S.M.H. 19 | 44.0' | |
| | " 20 | 66.8' | | | |
| LOT 100 | S.H.C. LOT 100 | 10.9' | S.M.H. 19 | 34.6' | |
| | S.M.H. 19 | 27.8' | " 20 | 55.2' | |
| | " 20 | 61.4' | S.H.C. LOT 101 | 53.3' | |
| LOT 101 | 6" F.H. | 19.1' | W.H.C. " " " | 21.8' | |
| | W.H.C. LOT 102 | 57.9' | S.M.H. 20 | 26.8' | |
| | S.M.H. 20 | 54.6' | 6" F.H. | 38.0' | |
| LOT 102 | S.H.C. LOT 102 | 21.8' | S.H.C. LOT 103 | 58.8' | |
| | 6" F.H. | 47.4' | 6" F.H. | 64.1' | |
| | 6" S.M.H. | 78.6' | S.M.H. 21 | 62.2' | |
| LOT 103 | W.H.C. LOT 104 | 5.5' | " " " " | 58.4' | |
| | S.H.C. " " " | 31.7' | W.H.C. LOT 103 | 18.2' | |
| | S.M.H. 21 | 53.7' | | | |
| LOT 104 | " " " " | 52.7' | S.H.C. LOT 105 | 52.2' | |
| | S.H.C. LOT 104 | 26.4' | S.M.H. 21 | 47.4' | |
| LOT 105 | W.H.C. " 106 | 5.5' | W.H.C. LOT 105 | 15.2' | |
| | S.H.C. " " " | 23.1' | S.M.H. 21 | 41.5' | |
| | S.M.H. 21 | 41.6' | | | |

| WATER HOUSE CONNECTIONS AS-BUILTS | | | SEWER HOUSE CONN. AS-BUILTS | | |
|-----------------------------------|------------------|----------|-----------------------------|----------|--|
| FROM | TO | DISTANCE | TO | DISTANCE | |
| LOT 106 | S.H.C. - LOT 108 | 17.6' | 6" S.M.H. 21 | 42.3' | |
| | " " " 105 | 20.2' | S.H.C. - LOT 105 | 37.1' | |
| | 6" S.M.H. 21 | 40.8' | | | |
| LOT 107 | S.H.C. LOT 107 | 26.1' | F.H. V. | 38.8' | |
| | F.H. V. | 54.0' | 6" F.H. | 47.8' | |
| | 6" S.M.H. 20 | 45.9' | 6" S.M.H. 20 | 26.8' | |
| LOT 108 | W.H.C. LOT 109 | 5.4' | 6" F.H. | 42.4' | |
| | F.H. V. | 80.4' | W.H.C. LOT 108 | 34.1' | |
| | 6" F.H. | 75.6' | F.H. V. | 51.8' | |
| LOT 109 | S.H.C. LOT 109 | 44.3' | S.H.C. LOT 110 | 74.2' | |
| | " " " 73 | 52.1' | " " " 73 | 62.9' | |
| | 6" F.H. | 81.0' | | | |
| LOT 110 | W.H.C. LOT 111 | 4.7' | W.H.C. LOT 110 | 24.6' | |
| LOT 111 | S.H.C. " " " | 43.5' | 6" S.M.H. 11 | 38.5' | |
| | 6" S.M.H. 11 | 78.6' | | | |

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

DIRECTOR OF PUBLIC WORKS _____ DATE _____
CHIEF, BUREAU OF ENGINEERING _____ DATE _____

DES: _____
DRN: _____
CHK: _____
DATE: _____

BY NO. _____ REVISION _____ DATE _____

AS-BUILTS FOR
WATER AND SEWER

600' SCALE MAP NO. 31 BLOCK NO. 2

WORTHINGTON RESERVE
SECTION 2 PHASE 2
LOTS 73-111
ELECTION DISTRICT NO. 2
CONTRACT NO. 14-3375-D

SCALE AS SHOWN
SHEET 5A OF 5