

N.W. 1/4, SEC. 26, T. 21 N., R. 4 E., W.M.

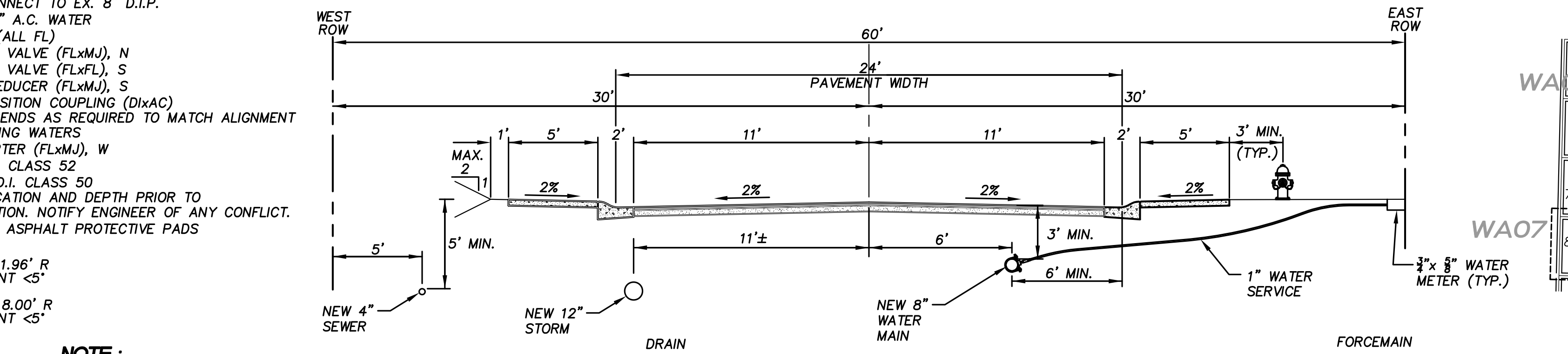
- 18 20+19.33, 6.00' R END HORIZONTAL CURVE (R=200')
- 19 18+83.09, 3.73' R BEGIN HORIZONTAL CURVE (R=200')
- 21 18+15.25, 6.00' R BEGIN HORIZONTAL CURVE (R=200')
- 23 18+08.00, 6.00' R 1-8"x6" TEE (MxMxFL) 1-8" GATE VALVE (FLxM) 16LF 6" D.I.P. 1-FIRE HYDRANT ASSEMBLY
- 24 18+65.60, 6.00' R 1-8" 22 1/2" BEND (M) W/CONC. BLOCKING END HORIZONTAL CURVE (R=200')

- 33 14+37±, 3.7± R CUT IN CONNECT TO EX. 8" D.I.P. AND EX. 4" A.C. WATER 1-8" TEE (ALL FL) 1-8" GATE VALVE (FLxM), N 1-8" GATE VALVE (FLxFL), S 1-8"x4" REDUCER (FLxM), S 1-4" TRANSITION COUPLING (DixAC) SEVERAL BENDS AS REQUIRED TO MATCH ALIGNMENT WITH EXISTING WATERS 1-8" ADAPTER (FLxM), W 2LF 4" D.I. CLASS 52 14±LF 8" D.I. CLASS 50 VERIFY LOCATION AND DEPTH PRIOR TO CONSTRUCTION. NOTIFY ENGINEER OF ANY CONFLICT. 2-3"x3"x3" ASPHALT PROTECTIVE PADS
- 34 15+40.91, 1.96' R ANGLE POINT <5'
- 35 17+28.00, 6.00' R ANGLE POINT <5'

NOTE:
EXISTING PARCEL NUMBERS AND LOT NUMBERS WILL BE UPDATED AFTER BOUNDARY LINE ADJUSTMENTS ARE RECORDED.

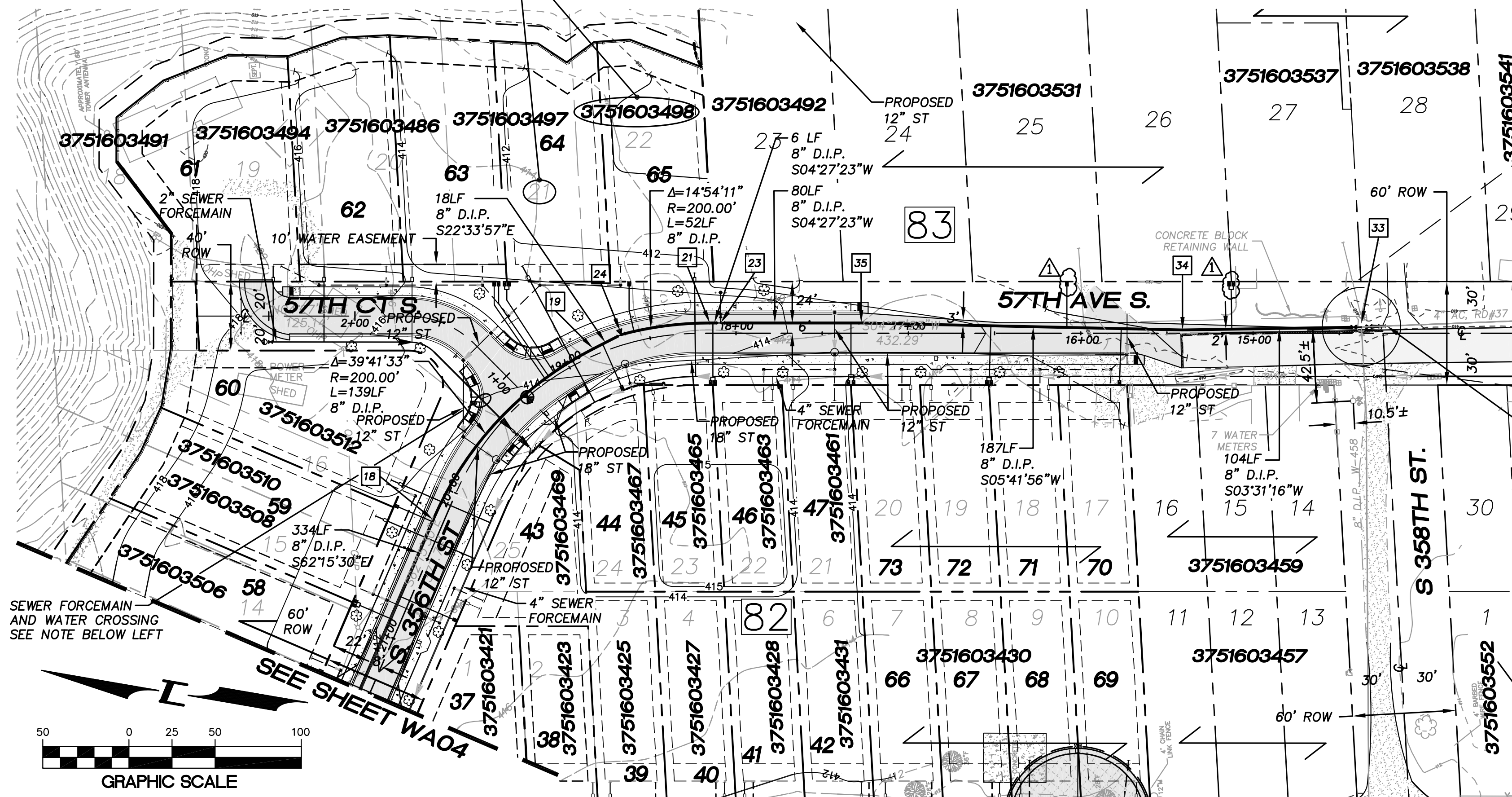
NOTE:

- ALL SEWER FORCEMAIN PIPES ARE DR-11 HDPE PIPES. THE SEWER FORCEMAIN SHALL HAVE 10' MINIMUM HORIZONTAL CLEARANCE BETWEEN WATERMAIN. WHEN CROSSING WITH WATERMAIN, THE SEWER FORCEMAIN SHALL CROSS UNDER AND KEEP MINIMUM 18" VERTICAL CLEARANCE FROM THE WATERMAIN. IF THE EXISTING WATERMAIN IS AC PIPE, IT SHALL BE REPLACED WITH SAME SIZE DUCTILE IRON PIPE 10 FEET EACH SIDE OF SEWER CROSSING BUT NO LESS THAN 2 FEET INTO BOTH TRENCH WALLS (NO CDF CRADLE ALLOWED).
- WATERMAINS DEPICTED IN PROFILE VIEW TO HAVE MINIMUM 3' COVER. WATERMAIN VALVE OPERATING NUT TO HAVE 12" COVER.
- LOCATIONS OF EXISTING UTILITIES ARE BASED ON FIELD SURVEY DATA. POT HOLE/RESEARCH EXISTING WATERMAIN AND OTHER UTILITIES BEFORE CONSTRUCTION.
- ALL NEW WATERMAINS ARE DUCTILE IRON PIPES WITH MINIMUM CLASS 50.
- ALL NEW SERVICES TO INDIVIDUAL LOTS ARE 1" (SERVICE & METER) W/ 3/4" REDUCER BUSHINGS (UNLESS NOTED OTHERWISE). ALL WATER METERS TO BE INSTALLED BY LAKEHAVEN FOLLOWING COMPLETION OF NEW WATERMAIN CONSTRUCTION. UNDER SEPARATE APPLICATIONS, ANY WATER SERVICE CONNECTIONS PROPOSED FROM EXISTING WATERMAIN SHALL BE ENTIRELY INSTALLED BY LAKEHAVEN. DEVELOPER SHOULD SUBMIT APPLICATIONS FOR THESE "FULL" SERVICE INSTALLATIONS TO LAKEHAVEN AT THE COMMENCEMENT OF CONSTRUCTION.
- WRAP MINIMUM NUMBER 12 COPPER TRACER WIRE AROUND ALL NON-PERPENDICULAR SERVICE LINES, WITH 12" LOOP INSIDE OF AFFECTED METER BOX(ES).
- THE MINIMUM SEPARATION BETWEEN (PARALLEL PIPELINES) WATER MAIN, WATER SERVICE LINE AND PRESSURE SEWER FACILITIES (MUST BE BELOW WATER MAIN OR WATER SERVICE) MUST BE MET, ARE AS FOLLOWS:
HORIZONTAL $\geq 10'$ MEASURED EDGE TO EDGE
VERTICAL $\geq 18'$, MEASURED EDGE TO EDGE.
- THE MINIMUM SEPARATION BETWEEN (CROSSING PIPELINES) WATER MAIN, WATER SERVICE LINE AND PRESSURE SEWER FACILITIES (MUST BE BELOW WATER MAIN OR WATER SERVICE) MUST BE MET, ARE AS FOLLOWS:
VERTICAL $\geq 18'$ MEASURED EDGE TO EDGE



KEY MAP
SCALE: 1" = 1000'

SCALE: 1" = 10'



NOTE:
PRESSURE ZONE 538'
MAX. HEAD 537'
MIN. HEAD 517'

NOTE:

VERTICAL DATUM:

NAVD 88

BENCH MARK:

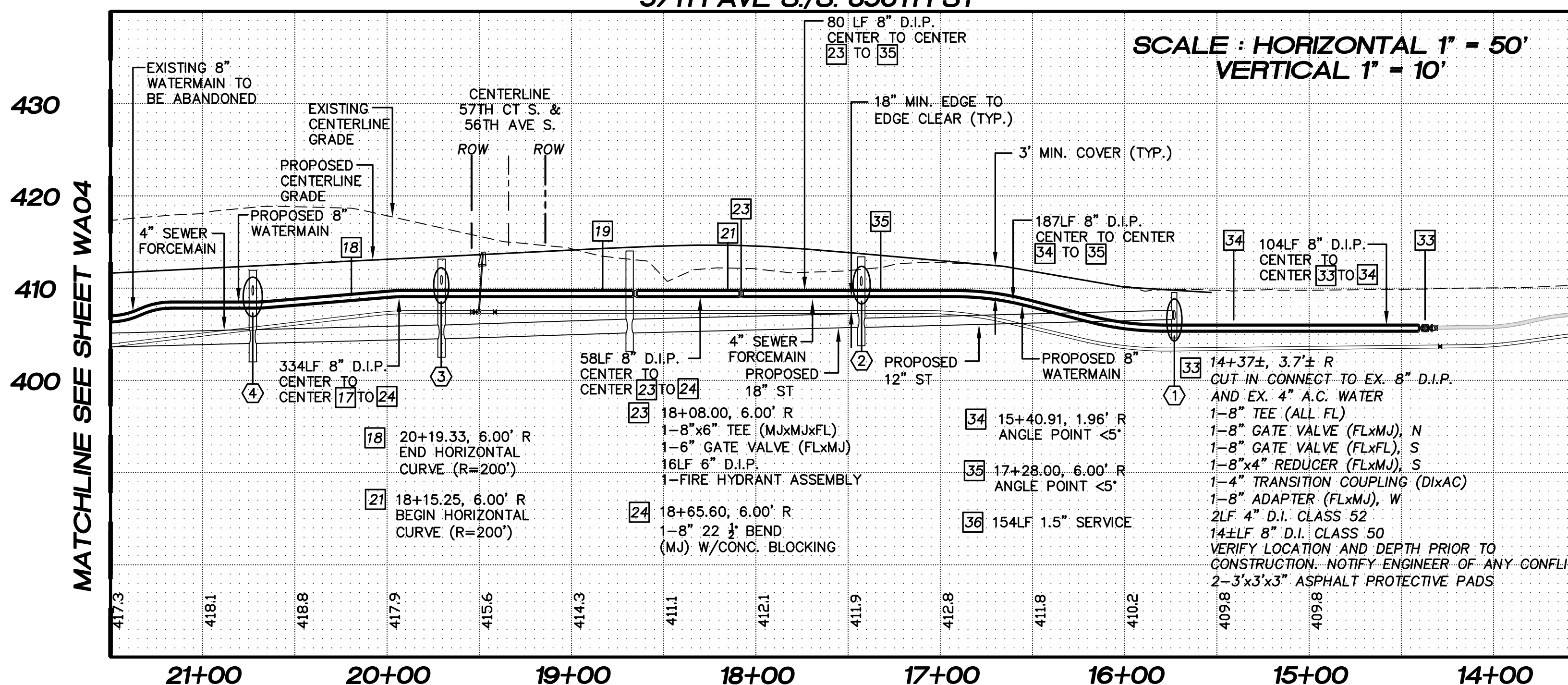
KING COUNTY SURVEY CONTROL POINT No. 6905, SW CORNER OF SECTION 27, T 24 N, R 4 E, W.M., CONCRETE MONUMENT WITH LEAD AND BRASS TACK, SET 1.2 FEET BELOW GRADE, IN STANDARD KC MON. CASE.
ELEVATION = 367.06

LEGEND

- EX. ASPHALT PAVEMENT
- EX. GRAVEL PAVEMENT
- EX. WATER MAIN
- NEW ASPHALT PAVEMENT
- NEW CONC. SIDEWALK
- NEW WATER MAIN
- NEW GATE VALVE
- NEW F.H. ASSEMBLY
- NEW WATER BEND W/ CONC. BLOCKING
- NEW WATER TEE W/ CONC. BLOCKING
- NEW WATER METER
- EX. CONTOUR
- FINISHED CONTOUR
- BLOCK NUMBER

CROSSING TABLE:

- 1) BOTTOM 12" STORM = 406.67
TOP 8" WATER = 406.00
- 2) BOTTOM 8" WATER = 410.33
TOP 12" STORM = 409.75
- 3) BOTTOM 12" STORM = 410.40
TOP 8" WATER = 409.75
- 4) BOTTOM 12" STORM = 409.16
TOP 8" WATER = 408.50



430

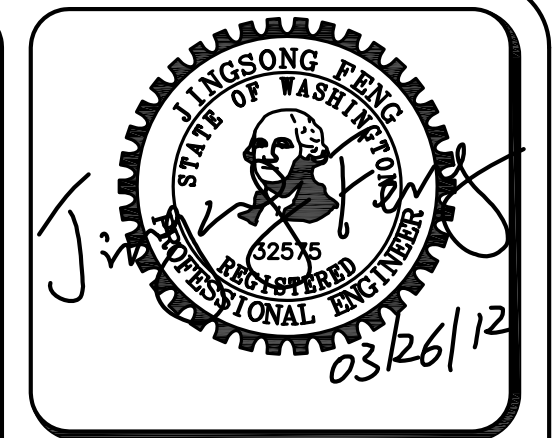
420

410

400

| BLOCK 82 (PRESSURE ZONE 538', MAX. HEAD 537', MIN. HEAD 517') | | | | |
|--|----------------------------|-----------------------------|---------------------------------------|---------------------------------------|
| LOT NO. | LOWEST FIXTURE ELEV. (FT.) | HIGHEST FIXTURE ELEV. (FT.) | ESTIMATED MIN. STATIC PRESSURE (PSI.) | ESTIMATED MAX. STATIC PRESSURE (PSI.) |
| 70 | 413.00' | 428.00' | 39 | 54 |
| 71 | 413.00' | 428.00' | 39 | 54 |
| 72 | 413.00' | 428.00' | 39 | 54 |
| 73 | 413.00' | 428.00' | 39 | 54 |
| 43 | 414.00' | 429.00' | 38 | 53 |
| 44 | 414.00' | 429.00' | 38 | 53 |
| 45 | 415.00' | 430.00' | 38 | 53 |
| 46 | 415.00' | 430.00' | 38 | 53 |
| 47 | 414.00' | 429.00' | 38 | 53 |

| BLOCK 83 (PRESSURE ZONE 538', MAX. HEAD 537', MIN. HEAD 517') | | | | |
|--|----------------------------|-----------------------------|---------------------------------------|---------------------------------------|
| LOT NO. | LOWEST FIXTURE ELEV. (FT.) | HIGHEST FIXTURE ELEV. (FT.) | ESTIMATED MIN. STATIC PRESSURE (PSI.) | ESTIMATED MAX. STATIC PRESSURE (PSI.) |
| 58 | 415.00' | 430.00' | 38 | 53 |
| 59 | 415.00' | 430.00' | 38 | 53 |
| 60 | 415.00' | 430.00' | 38 | 53 |
| 61 | 417.00' | 432.00' | 37 | 52 |
| 62 | 415.00' | 430.00' | 38 | 53 |
| 63 | 416.00' | 428.00' | 39 | 54 |
| 64 | 411.00' | 426.00' | 39 | 55 |
| 65 | 411.00' | 426.00' | 39 | 55 |



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Pacific Engineering Design, LLC
Civil Engineering and Planning Consultants

LAKEHAVEN UTILITY DISTRICT PROJECT No. 6904025
PEPPER HILL ESTATES
KING COUNTY, WA.
FOR: HIGHLAND PACIFIC HOUSING GROUP I, LLC
1420 5TH AVE, SUITE 2200
SEATTLE, WA, 98101-5346
PHONE: (206) 521-5979, FAX: (206) 254-2880

PROJECT NO.: **05052**
DRAWN BY: **JGC**
ISSUE DATE: **07-31-07**
SHEET REV.: **03-26-2012**

WATER MAIN
57TH AVE. S./
S. 356TH ST
STA. 14+37± TO
STA. 21+50.00
PLAN AND PROFILE

05052WA05-WA05.DWG
WA05