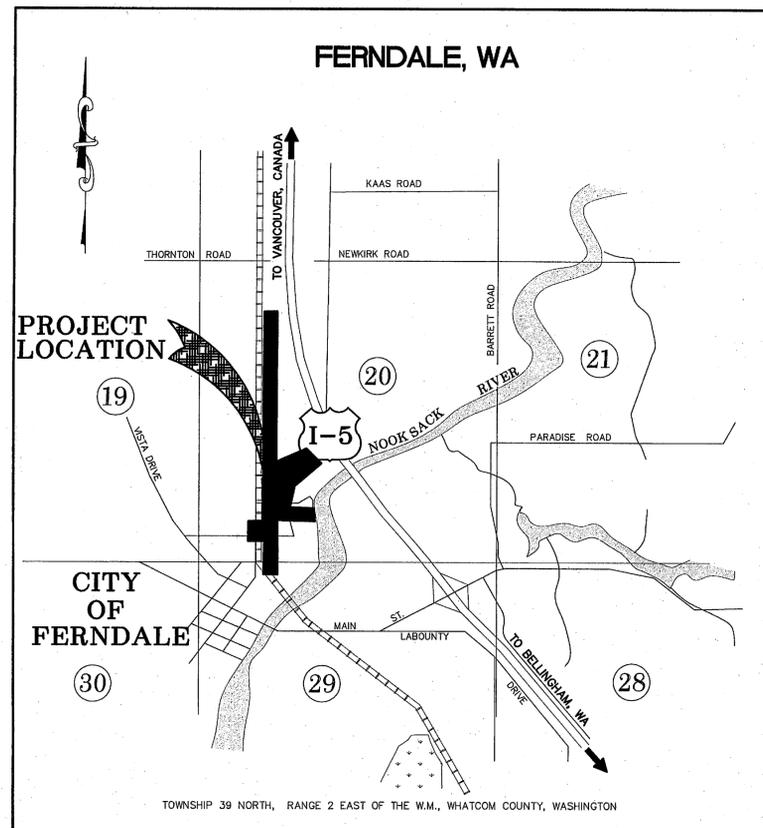


SECOND AVENUE STREET IMPROVEMENTS CITY OF FERNDALE

VICINITY MAP
NTS



NOTE:
CONTRACTOR TO FIELD VERIFY
SIZE, TYPE, LOCATION AND DEPTH OF
ALL EXISTING UTILITIES.
CALL FOR LOCATES BEFORE YOU DIG.

SHEET INDEX

1. COVER SHEET
- 2-6. EXISTING CONDITIONS
- 7-10. TRAFFIC CONTROL
- 11-18. CONSTRUCTION PHASING
- 19-23. EROSION CONTROL
- 24-28. DEMOLITION PLANS
- 29-39. SECOND AVE PLAN & PROFILE
- 40-47. THORNTON PLAN & PROFILE
48. WALL PLAN & PROFILE
- 49-53. TYPICAL SECTIONS
- 54-57. GRADING PLANS
- 58-61. CHANNELIZATION PLANS
- 62-69. DETAIL SHEETS
- 70-72. WETLANDS MITIGATION PLANS
- 15 SHEETS=REID MIDDLETON ROUNDABOUT PLANS
- 12 SHEETS=CASCADE DESIGN GROUP LANDSCAPING PLANS

LEGEND

| EXISTING | PROPOSED |
|----------|---|
| BB | PROPOSED AUTOTURN |
| OH | PROPOSED DITCH CL |
| 95 | PROPOSED BUILDING |
| 95 | PROPOSED TOE OF BANK |
| X | PROPOSED CONDUIT |
| X | PROPOSED TOP OF BANK |
| FO | PROPOSED MAJOR CONTOUR |
| G | PROPOSED MINOR CONTOUR |
| O | PROPOSED FENCE |
| PR | PROPOSED HANDRAIL |
| PR | PROPOSED CONSTRUCTION EASEMENT |
| PR | PROPOSED SANITARY SEWER FORCE MAIN |
| PR | PROPOSED FIBER OPTICS |
| PR | PROPOSED GRADE BREAK |
| PR | PROPOSED GAURDRAIL |
| PR | PROPOSED GRAVEL |
| PR | PROPOSED PATH |
| PR | PROPOSED TRAFFIC STRIPE |
| PR | PROPOSED ROCK WALL |
| PR | PROPOSED BACK OF CURB |
| PR | PROPOSED ROAD CENTERLINE |
| PR | PROPOSED EDGE OF PAVEMENT |
| PR | PROPOSED FACE OF CURB |
| PR | PROPOSED RIGHT OF WAY |
| PR | PROPOSED SAWCUT |
| PR | PROPOSED STORM DRAIN |
| PR | PROPOSED FIELD STORM DRAIN |
| PR | PROPOSED TRAFFIC SIGNAL CONDUCTOR |
| PR | PROPOSED SILT FENCE |
| PR | PROPOSED SANITARY SEWER |
| PR | PROPOSED TREE LINE |
| PR | PROPOSED WATERMAIN |
| PR | PROPOSED SIDEWALK |
| PR | PROPOSED PAVEMENT VALLEY |
| PR | PROPOSED MONITORING WELL |
| PR | PROPOSED STORM DRAIN CATCH BASIN TYPE I |
| PR | PROPOSED STORM DRAIN CATCH BASIN TYPE II |
| PR | PROPOSED STORM CLEANOUT |
| PR | PROPOSED STORM DRAIN INLET |
| PR | PROPOSED SANITARY SEWER MANHOLE |
| PR | PROPOSED SANITARY SEWER MANHOLE |
| PR | PROPOSED SANITARY SEWER CLEAN OUT |
| PR | PROPOSED HYDRANT |
| PR | PROPOSED WATER METER |
| PR | PROPOSED WATER VALVE |
| PR | PROPOSED COUPLER |
| PR | PROPOSED UTILITY POLE |
| PR | PROPOSED SIGN |
| PR | PROPOSED FLOW ARROW |
| PR | PROPOSED TREE |
| PR | PROPOSED VEGETATION |
| PR | PROPOSED EXISTING RR TRACKS |
| PR | PROPOSED EX BUILDING |
| PR | PROPOSED EX GUY WIRE |
| PR | PROPOSED EX STORM CLEANOUT |
| PR | PROPOSED EX SEWER CLEANOUT |
| PR | PROPOSED EX JBOX |
| PR | PROPOSED EX STREET LIGHT |
| PR | PROPOSED EX MAIL BOX |
| PR | PROPOSED EX WATER METER |
| PR | PROPOSED EX WATER SPIGOT |
| PR | PROPOSED EX WATER VALVE |
| PR | PROPOSED EX FIRE HYDRANT |
| PR | PROPOSED EX TRAFFIC SIGNAL VAULT |
| PR | PROPOSED EX SEWER MANHOLE |
| PR | PROPOSED EX STORM DRAIN CATCH BASIN TYPE I |
| PR | PROPOSED EX STORM DRAIN CATCH BASIN TYPE II |
| PR | PROPOSED EX UTILITY POLE |
| PR | PROPOSED EX GAS METER |
| PR | PROPOSED EX TRANSFORMER PAD |
| PR | PROPOSED EX POWER VAULT |
| PR | PROPOSED EX SIGN |
| PR | PROPOSED EX TELEPHONE PEDESTAL |
| PR | PROPOSED EX TREE |
| PR | PROPOSED EX VEGETATION |
| PR | PROPOSED EX WSDOT CONTROLLED ACCESS |



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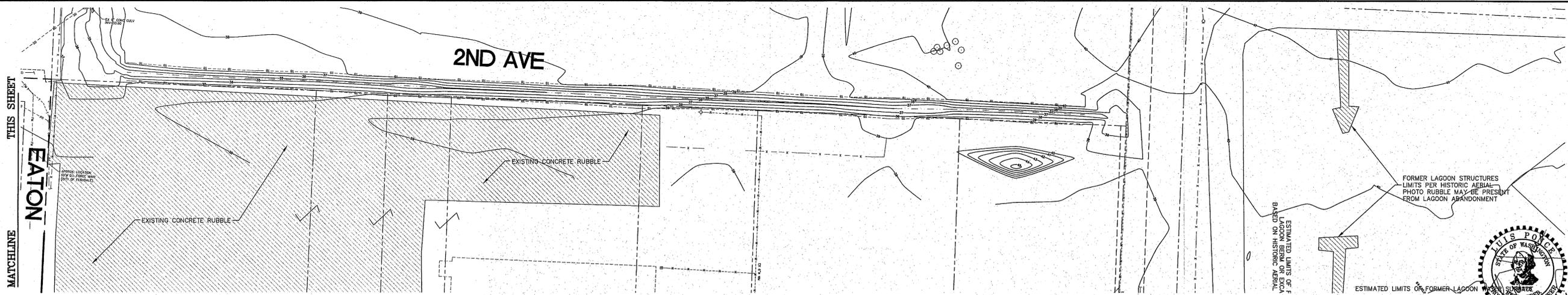
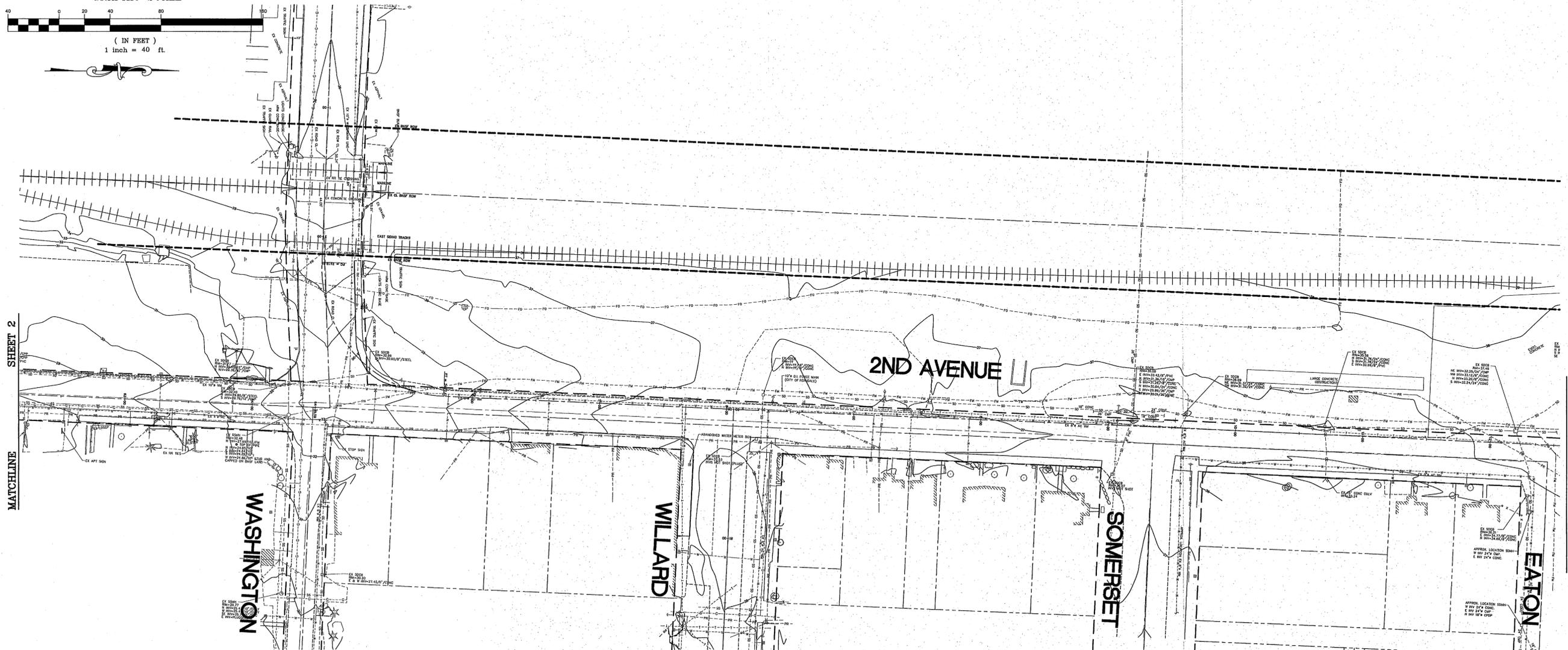
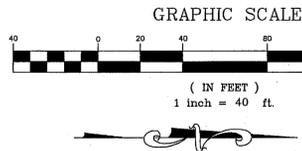
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Lynden, Washington 98264 Fax (360) 354-0407

| NO. | DATE | REVISION | BY |
|-----|------|----------|----|
|-----|------|----------|----|

CITY OF FERNDALE
2095 MAIN STREET
FERNDALE, WA 98248

2ND AVENUE
STREET IMPROVEMENTS
COVER SHEET

| | |
|------------|---------|
| JOB# / DWG | DATE |
| 07038 SP2 | 7-8-09 |
| SCALE | SHEET |
| H:NA v:NA | 1 of 72 |



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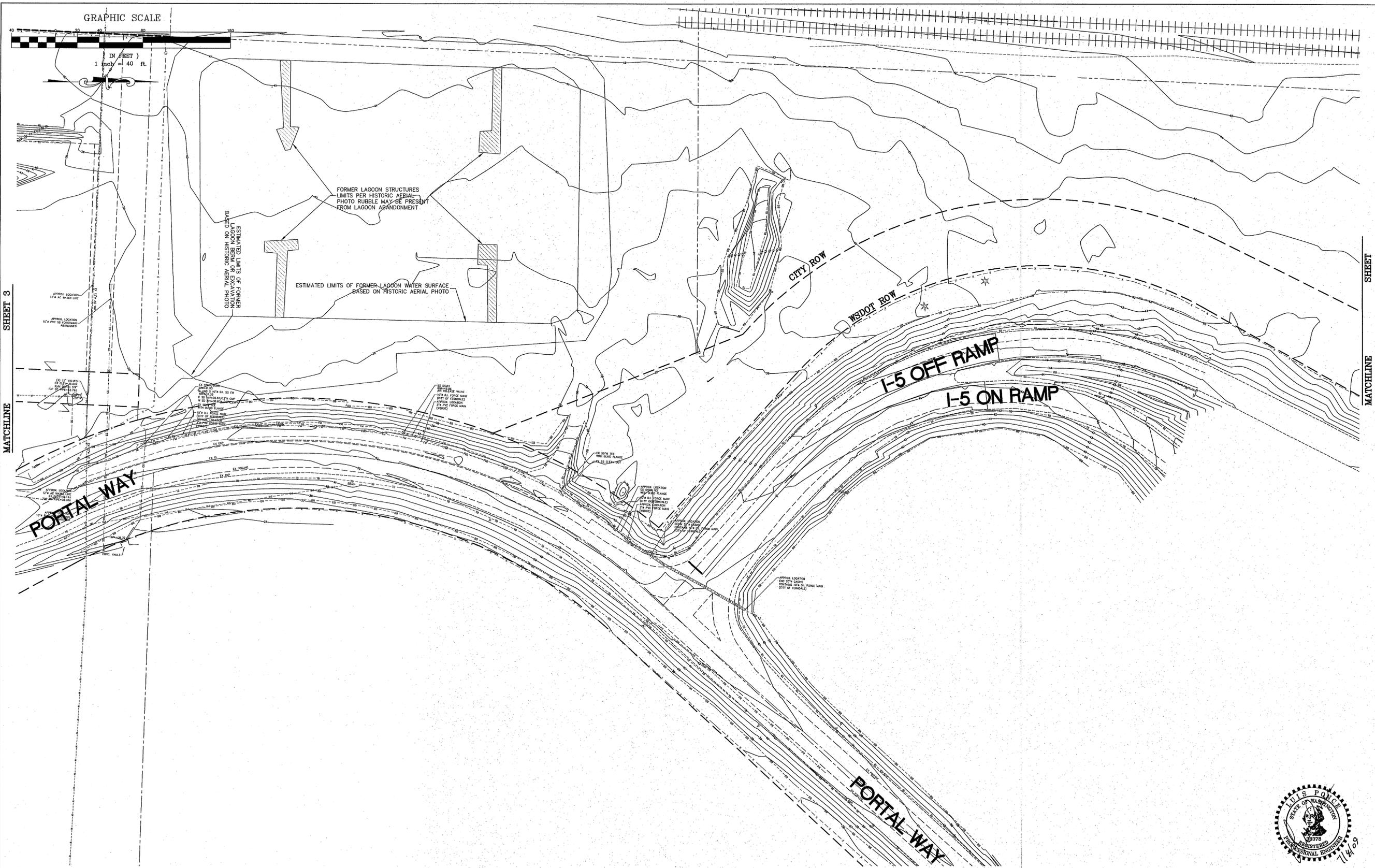
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|-----|------|----------|----|
| | | | |

CITY OF FERDALE
2095 MAIN STREET
FERDALE, WA 98248

2ND AVENUE
STREET IMPROVEMENTS
EXISTING CONDITIONS

JOB# / DWG
07038 SP2
SCALE
1" = 40' v.N/A

DATE
7-8-09
SHEET
3 of 72



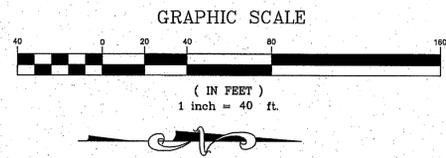
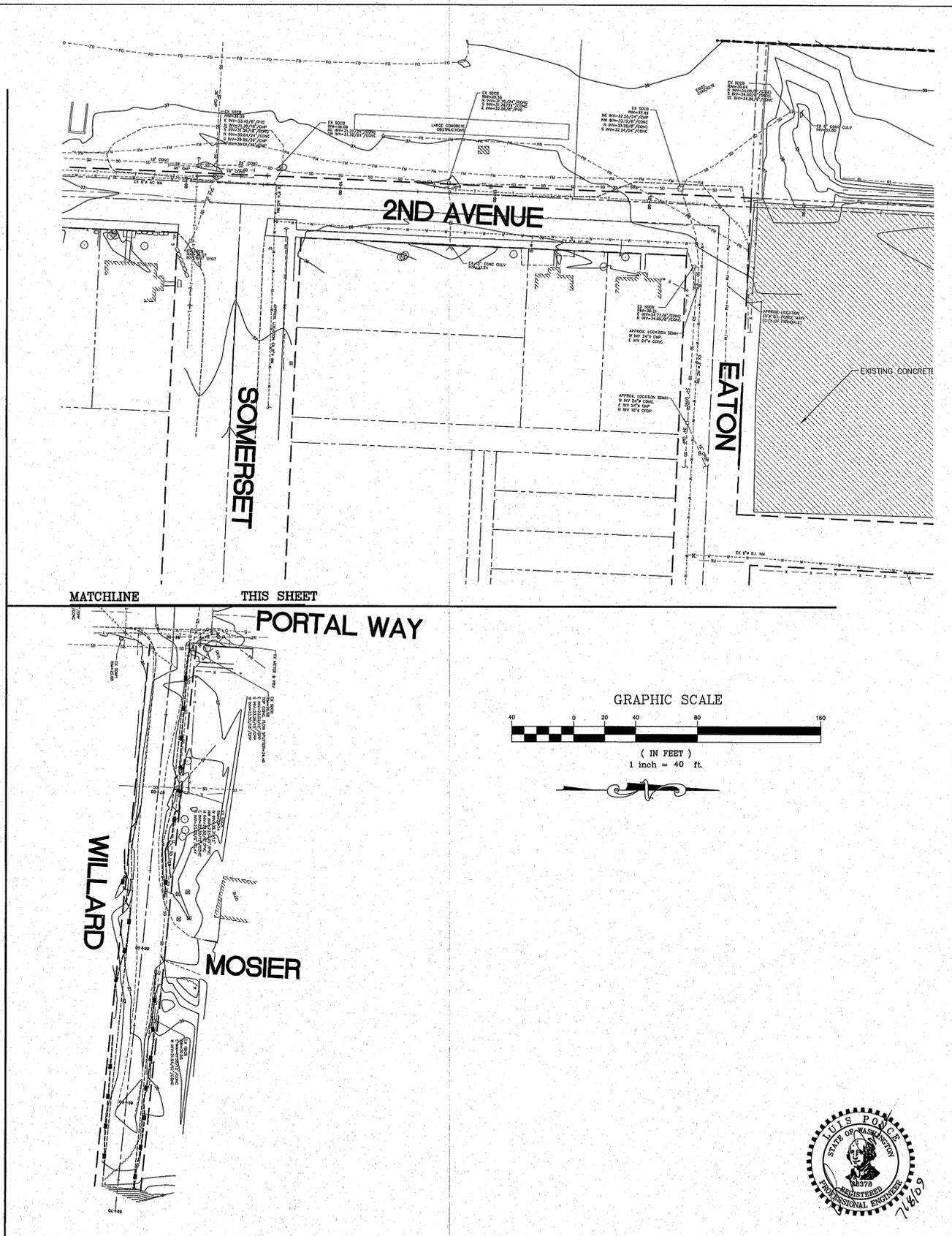
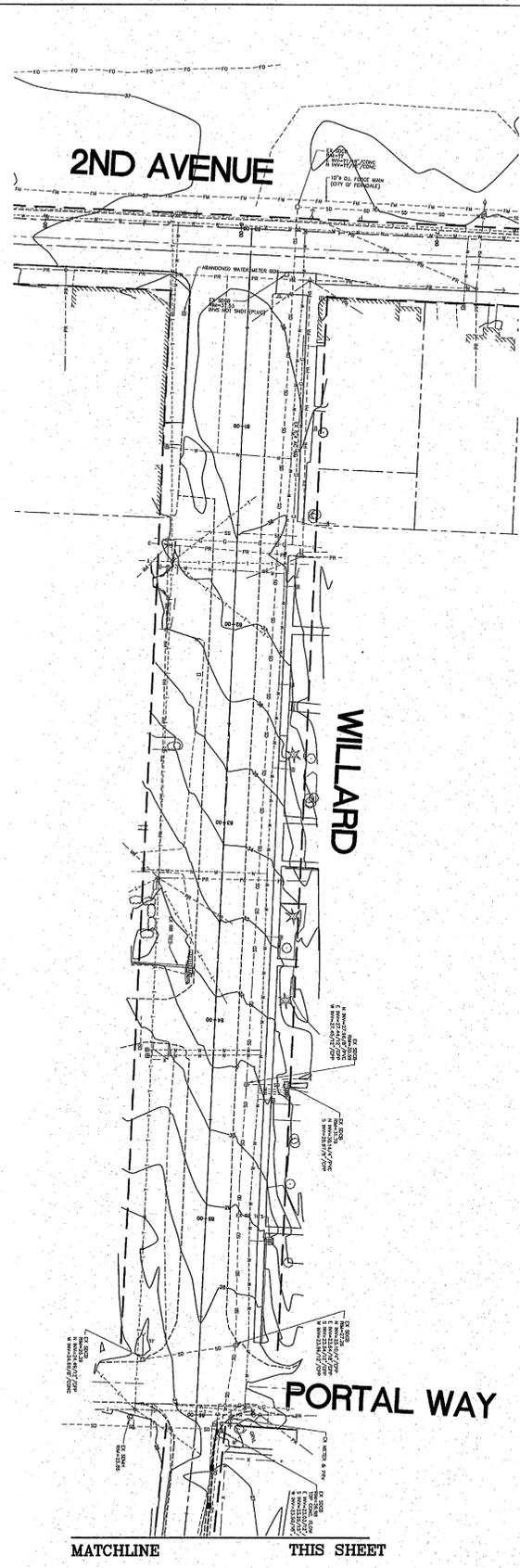
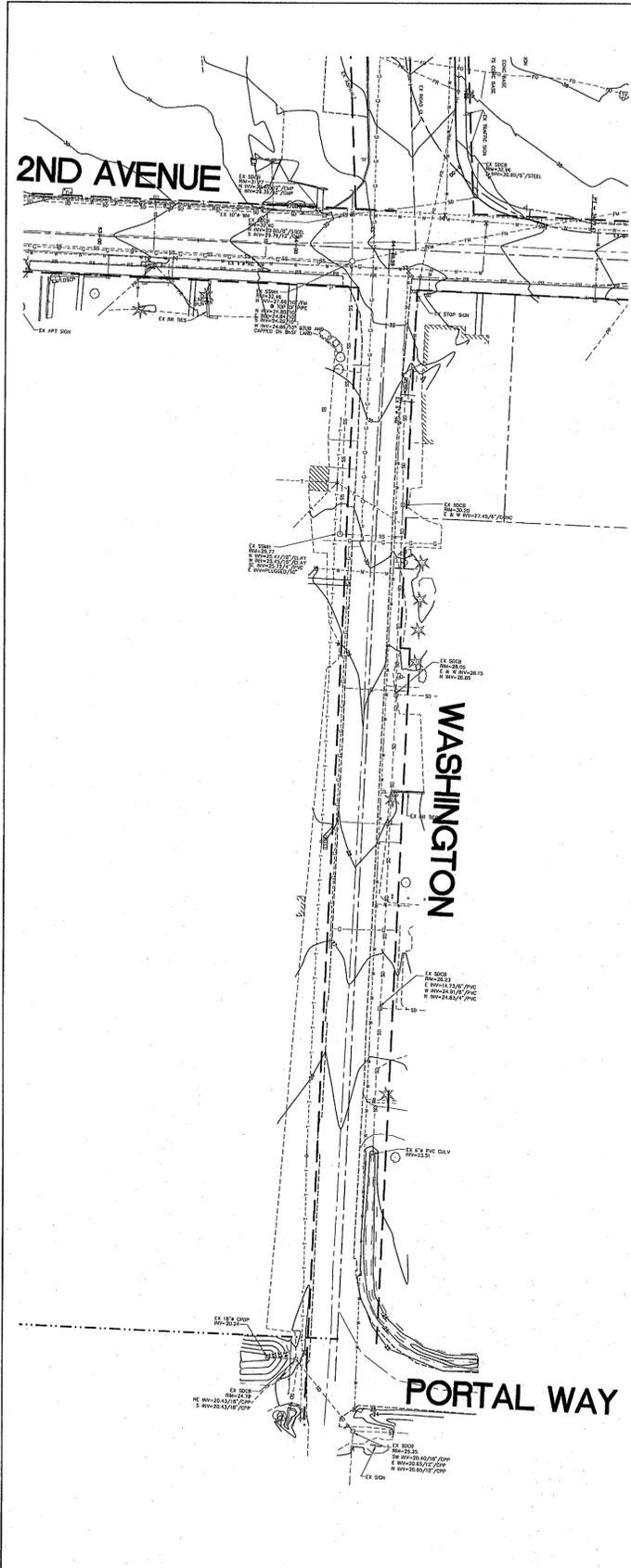
SHEET 3

MATCHLINE SHEET



| | | | | | | | | | |
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| DESIGNED BY LP |  REICHHARDT & EBE ENGINEERING, INC. CONSULTING ENGINEERS PO Box 978 423 Front St., Ste 201 Lynden, Washington 98284 Ph (360) 354-3887 Fax (360) 354-0407 | NO. | DATE | REVISION | BY | CITY OF FERDALE 2095 MAIN STREET FERDALE, WA 98248 | 2ND AVENUE STREET IMPROVEMENTS EXISTING CONDITIONS | JOB# / DWG 07038 SP2 | DATE 7-8-09 |
| DRAWN BY MLK/LMC | | | | | | | | SCALE H:1"=40' v:N/A | SHEET |
| CHECKED BY | | | | | | | | | 4 of 72 |

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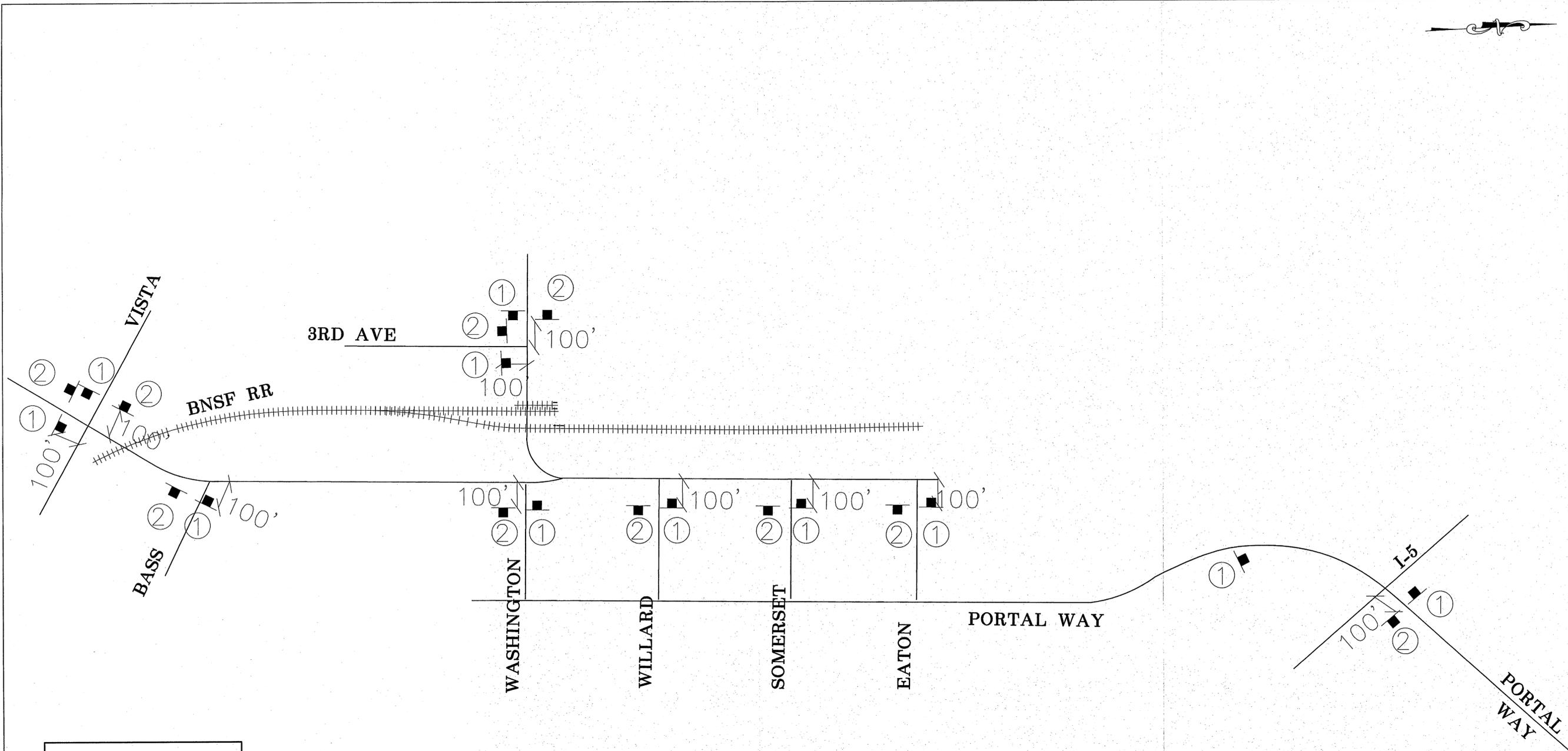
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 Lynden, Washington 98264 Fax (360) 354-0407

| NO. | DATE | REVISION | BY |
|-----|------|----------|----|
| | | | |

CITY OF FERDALE
 2095 MAIN STREET
 FERDALE, WA 98248

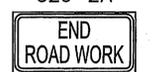
2ND AVENUE
STREET IMPROVEMENTS
EXISTING CONDITIONS

| | |
|-----------------------------|------------------|
| JOB# / DWG 07038 SP2 | DATE 7-8-09 |
| SCALE H: 1" = 40' v: N/A | SHEET 6 of 72 |



LEGEND

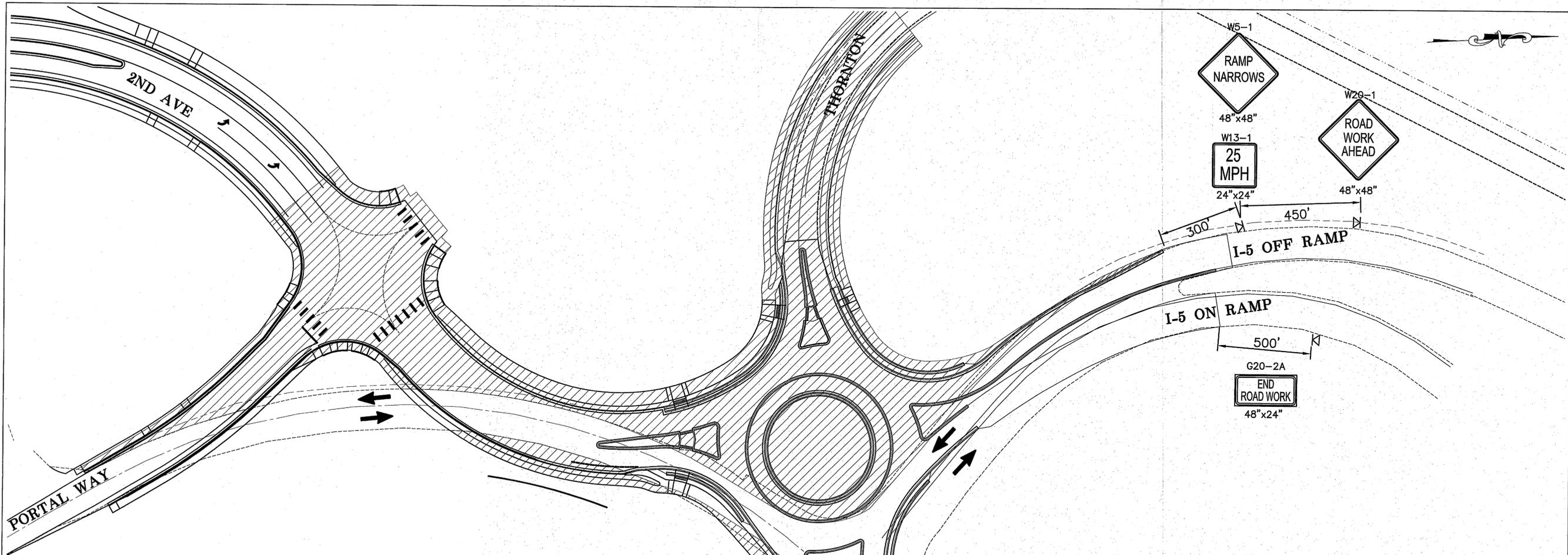
 ①
 W20-1

 ②
 G20-2A
 END ROAD WORK



| | | | | | | | | | |
|---------------------|--|-----|------|----------|----|--|--|----------------------------|------------------|
| DESIGNED BY LP |  REICHHARDT & EBE ENGINEERING, INC. CONSULTING ENGINEERS PO Box 978 423 Front St., Ste 201 Ph (360) 354-3687 Lynden, Washington 98284 Fax (360) 354-0407 | NO. | DATE | REVISION | BY | CITY OF FERDALE 2095 MAIN STREET FERDALE, WA 98248 | 2ND AVENUE STREET IMPROVEMENTS TRAFFIC CONTROL PLAN - 2ND AVE | JOB# / DWG 07038 SP2.TC | DATE 7-8-09 |
| DRAWN BY MLK/LMC | | NO. | DATE | REVISION | BY | | | SCALE H:NA v:NA | SHEET 7 of 72 |
| CHECKED BY | | | | | | | | | |

Project: 07038\09\SP2.TC TRAFFIC CONTROL PLAN, TC: 7/10/09 9:12:57 AM



GENERAL NOTES:

1. REMOVAL OF TEMPORARY EMBANKMENT AND REMOVAL OF TEMPORARY PAVEMENT TO BE PAID FOR AS ROADWAY EXCAVATION INCLUDING HAUL.
2. CONFLICTING PAVEMENT MARKINGS NO LONGER APPLICABLE SHALL BE REMOVED. TEMPORARY MARKINGS SHALL BE USED AS NECESSARY. IF SIGNS ARE IN PLACE FOR MORE THAN THREE DAYS THEN THEY SHALL BE POST MOUNTED.
3. THIS PLAN ASSUMES NO DROP-OFF GREATER THAN 2" WILL BE LEFT EXPOSED TO TRAFFIC DURING NON-WORKING HOURS. SEE STD SPECS 1-07.23(1) FOR ADDITIONAL GUIDANCE.
4. ACTUAL WIDTHS AND OFFSETS MAY VARY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ADJUST THE WORK AS NECESSARY WITH APPROVAL FROM THE ENGINEER.
5. "MOTORCYCLES USE EXTREME CAUTION" SIGNS (W21-1701) SHALL BE INSTALLED THROUGHOUT THE WORKZONE AND AFTER EACH SIGNIFICANT INTERSECTION ON OR OFF RAMP WHEN THE FOLLOWING ROADWAY CONDITIONS EXIST:
 - GROOVED PAVEMENT
 - ABRUPT LANE EDGE
 - STEEL PLATES
 - LOOSE GRAVEL OR EARTH
 SPECIFIC SIGNS FOR EACH OF THE CONDITIONS NOTED SHALL BE INSTALLED ALONG WITH THE "MOTORCYCLES USE EXTREME CAUTION" SIGNS.

- LEGEND**
- WORK ZONE
 - SIGN LOCATION - POST MOUNTED
 - SEQUENTIAL ARROW SIGN
 - SIGN LOCATION - TRIPOD MOUNTED
 - FLAGGING STATION
 - OR TRAFFIC SAFETY DRUMS WITH TYPE C LIGHTS
 - PROTECTIVE VEHICLE
 - PROTECTIVE VEHICLE WITH TRUCK-MOUNTED IMPACT ATTENUATOR
 - PORTABLE CHANGEABLE MESSAGE SIGN
 - TEMPORARY SIGN SUPPORT
 - TRAFFIC FLOW ARROW

CHANNELIZING DEVICE SPACING (FEET)

| MPH | TAPER | TANGENT |
|-------|-------|---------|
| 50/70 | 40 | 80 |
| 35/45 | 30 | 60 |
| 25/30 | 20 | 40 |

SHOULDER OR LANE WIDTH (FEET) MINIMUM TAPER LENGTH IN FEET (L)

| SHOULDER OR LANE WIDTH (FEET) | POSTED SPEED LIMIT (MPH) | | | | | | | | | |
|-------------------------------|--------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | 25 | 30 | 35 | 40 | 45 | 50 | 55 | 60 | 65 | 70 |
| 6 | 63 | 90 | 123 | 165 | 270 | 300 | 330 | 360 | 390 | 420 |
| 8 | 84 | 120 | 162 | 210 | 360 | 405 | 450 | 480 | 520 | 560 |
| 10 | 105 | 150 | 204 | 270 | 450 | 500 | 550 | 600 | 650 | 700 |
| 11 | 115 | 165 | 225 | 295 | 495 | 550 | 605 | 660 | 715 | 770 |
| 12 | 125 | 180 | 245 | 320 | 540 | 600 | 660 | 720 | 780 | 840 |

3 DEVICES MINIMUM SPACED 10' O.C. IN TAPERS FOR SHOULDER WIDTHS LESS THAN 6 FEET

SIGN SPACING = X (FEET)

| | | |
|--|----------------|-------|
| RURAL HIGHWAYS | 60/65 MPH | 800'± |
| RURAL ROADS | 45/55 MPH | 500'± |
| URBAN ARTERIALS & RURAL ROADS | 35/40 MPH | 350'± |
| RURAL ROADS, URBAN STREETS, RESIDENTIAL & BUSINESS DISTRICTS | 25/30 MPH | 200'± |
| URBAN STREETS | 25 MPH OR LESS | 100'± |

"W" SIGNS ARE 48"x48" BLACK ON ORANGE UNLESS OTHERWISE DESIGNATED

ALL SPACING MAY BE ADJUSTED TO ACCOMMODATE INTERCHANGE RAMP, AT-GRADE INTERSECTIONS, AND DRIVEWAYS.

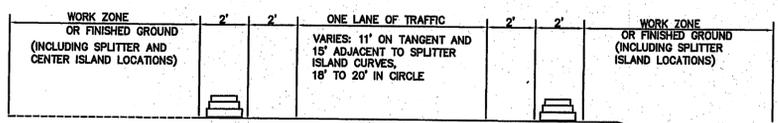
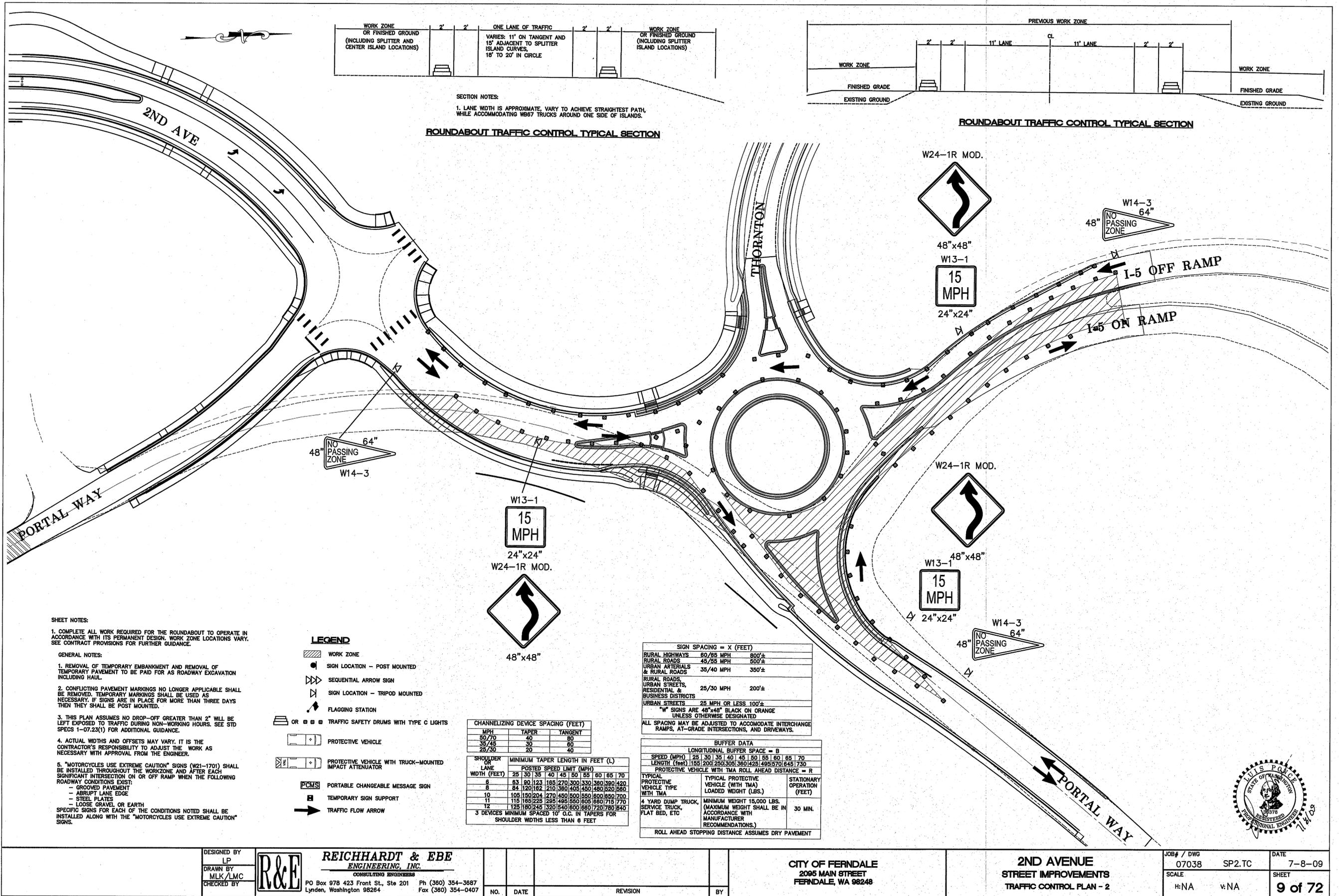
BUFFER DATA

| LONGITUDINAL BUFFER SPACE = B | | STATIONARY OPERATION (FEET) | |
|-------------------------------|---------------|-----------------------------|---------|
| SPEED (MPH) | LENGTH (feet) | MINIMUM WEIGHT (LBS.) | 30 MIN. |
| 25 | 30 | 15,000 | |
| 30 | 35 | 15,000 | |
| 40 | 45 | 15,000 | |
| 50 | 55 | 15,000 | |
| 60 | 65 | 15,000 | |
| 70 | 75 | 15,000 | |

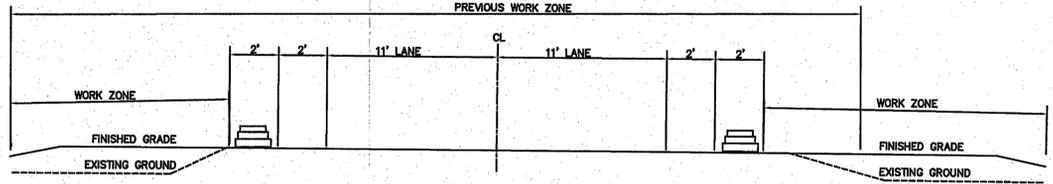
PROTECTIVE VEHICLE WITH TMA ROLL AHEAD DISTANCE = R

ROLL AHEAD STOPPING DISTANCE ASSUMES DRY PAVEMENT





SECTION NOTES:
 1. LANE WIDTH IS APPROXIMATE, VARY TO ACHIEVE STRAIGHTEST PATH, WHILE ACCOMMODATING WB67 TRUCKS AROUND ONE SIDE OF ISLANDS.



ROUNDABOUT TRAFFIC CONTROL TYPICAL SECTION

SHEET NOTES:

- COMPLETE ALL WORK REQUIRED FOR THE ROUNDABOUT TO OPERATE IN ACCORDANCE WITH ITS PERMANENT DESIGN. WORK ZONE LOCATIONS VARY. SEE CONTRACT PROVISIONS FOR FURTHER GUIDANCE.

GENERAL NOTES:

- REMOVAL OF TEMPORARY EMBANKMENT AND REMOVAL OF TEMPORARY PAVEMENT TO BE PAID FOR AS ROADWAY EXCAVATION INCLUDING HAUL.
- CONFLICTING PAVEMENT MARKINGS NO LONGER APPLICABLE SHALL BE REMOVED. TEMPORARY MARKINGS SHALL BE USED AS NECESSARY. IF SIGNS ARE IN PLACE FOR MORE THAN THREE DAYS THEN THEY SHALL BE POST MOUNTED.
- THIS PLAN ASSUMES NO DROP-OFF GREATER THAN 2" WILL BE LEFT EXPOSED TO TRAFFIC DURING NON-WORKING HOURS. SEE STD SPECS 1-07.23(1) FOR ADDITIONAL GUIDANCE.
- ACTUAL WIDTHS AND OFFSETS MAY VARY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ADJUST THE WORK AS NECESSARY WITH APPROVAL FROM THE ENGINEER.
- "MOTORCYCLES USE EXTREME CAUTION" SIGNS (W21-1701) SHALL BE INSTALLED THROUGHOUT THE WORKZONE AND AFTER EACH SIGNIFICANT INTERSECTION ON OR OFF RAMP WHEN THE FOLLOWING ROADWAY CONDITIONS EXIST:
 - GROOVED PAVEMENT
 - ABRUPT LANE EDGE
 - STEEL PLATES
 - LOOSE GRAVEL OR EARTH
 SPECIFIC SIGNS FOR EACH OF THE CONDITIONS NOTED SHALL BE INSTALLED ALONG WITH THE "MOTORCYCLES USE EXTREME CAUTION" SIGNS.

- LEGEND**
- WORK ZONE
 - SIGN LOCATION - POST MOUNTED
 - SEQUENTIAL ARROW SIGN
 - SIGN LOCATION - TRIPOD MOUNTED
 - FLAGGING STATION
 - OR TRAFFIC SAFETY DRUMS WITH TYPE C LIGHTS
 - PROTECTIVE VEHICLE
 - PROTECTIVE VEHICLE WITH TRUCK-MOUNTED IMPACT ATTENUATOR
 - PCMS PORTABLE CHANGEABLE MESSAGE SIGN
 - TEMPORARY SIGN SUPPORT
 - TRAFFIC FLOW ARROW

CHANNELIZING DEVICE SPACING (FEET)

| MPH | TAPER | TANGENT |
|-------|-------|---------|
| 50/70 | 40 | 80 |
| 35/45 | 30 | 60 |
| 25/30 | 20 | 40 |

SHOULDER OR LANE WIDTH (FEET)

| MINIMUM TAPER LENGTH IN FEET (L) | POSTED SPEED LIMIT (MPH) |
|----------------------------------|--------------------------|
| 25 | 35 |
| 35 | 40 |
| 45 | 45 |
| 55 | 50 |
| 65 | 55 |
| 75 | 60 |
| 85 | 65 |
| 95 | 70 |
| 105 | 75 |
| 115 | 80 |
| 125 | 85 |
| 135 | 90 |
| 145 | 95 |
| 155 | 100 |
| 165 | 105 |
| 175 | 110 |
| 185 | 115 |
| 195 | 120 |
| 205 | 125 |
| 215 | 130 |
| 225 | 135 |
| 235 | 140 |
| 245 | 145 |
| 255 | 150 |
| 265 | 155 |
| 275 | 160 |
| 285 | 165 |
| 295 | 170 |
| 305 | 175 |
| 315 | 180 |
| 325 | 185 |
| 335 | 190 |
| 345 | 195 |
| 355 | 200 |
| 365 | 205 |
| 375 | 210 |
| 385 | 215 |
| 395 | 220 |
| 405 | 225 |
| 415 | 230 |
| 425 | 235 |
| 435 | 240 |
| 445 | 245 |
| 455 | 250 |
| 465 | 255 |
| 475 | 260 |
| 485 | 265 |
| 495 | 270 |
| 505 | 275 |
| 515 | 280 |
| 525 | 285 |
| 535 | 290 |
| 545 | 295 |
| 555 | 300 |
| 565 | 305 |
| 575 | 310 |
| 585 | 315 |
| 595 | 320 |
| 605 | 325 |
| 615 | 330 |
| 625 | 335 |
| 635 | 340 |
| 645 | 345 |
| 655 | 350 |
| 665 | 355 |
| 675 | 360 |
| 685 | 365 |
| 695 | 370 |
| 705 | 375 |
| 715 | 380 |
| 725 | 385 |
| 735 | 390 |
| 745 | 395 |
| 755 | 400 |
| 765 | 405 |
| 775 | 410 |
| 785 | 415 |
| 795 | 420 |
| 805 | 425 |
| 815 | 430 |
| 825 | 435 |
| 835 | 440 |
| 845 | 445 |
| 855 | 450 |
| 865 | 455 |
| 875 | 460 |
| 885 | 465 |
| 895 | 470 |
| 905 | 475 |
| 915 | 480 |
| 925 | 485 |
| 935 | 490 |
| 945 | 495 |
| 955 | 500 |
| 965 | 505 |
| 975 | 510 |
| 985 | 515 |
| 995 | 520 |

3 DEVICES MINIMUM SPACED 10' O.C. IN TAPERS FOR SHOULDER WIDTHS LESS THAN 6 FEET

SIGN SPACING - X (FEET)

| ROAD TYPE | SPACING (FEET) |
|--|----------------|
| RURAL HIGHWAYS 50/55 MPH | 800± |
| RURAL ROADS 45/55 MPH | 600± |
| URBAN ARTERIALS & RURAL ROADS 35/40 MPH | 350± |
| RURAL ROADS 25/30 MPH | 200± |
| URBAN STREETS, RESIDENTIAL & BUSINESS DISTRICTS 25 MPH OR LESS | 100± |
| URBAN STREETS 25 MPH OR LESS | 100± |

*W SIGNS ARE 48"X48" BLACK ON ORANGE UNLESS OTHERWISE DESIGNATED

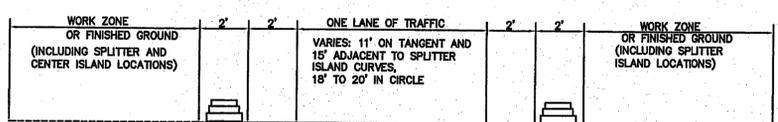
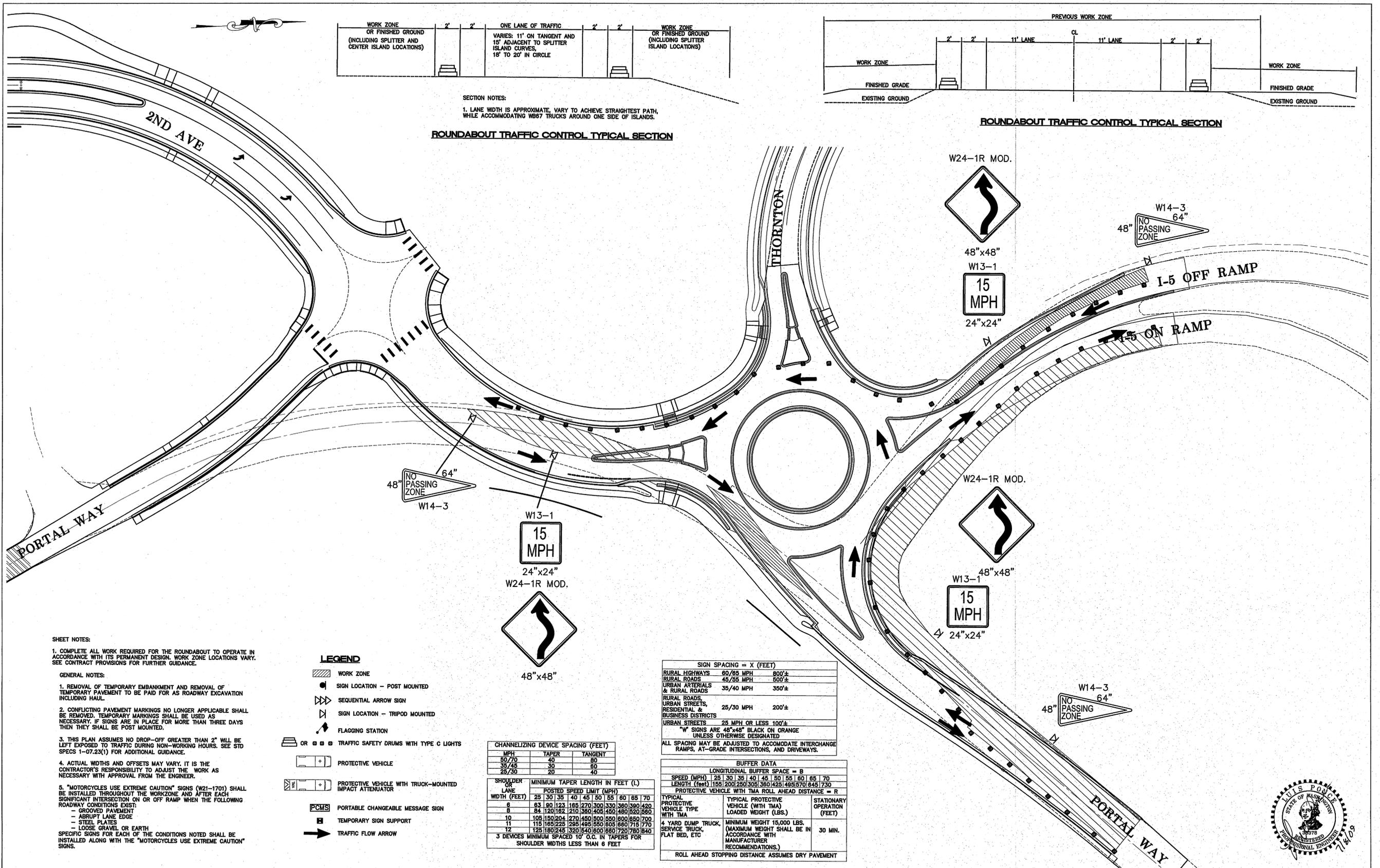
ALL SPACING MAY BE ADJUSTED TO ACCOMMODATE INTERCHANGE RAMP, AT-GRADE INTERSECTIONS, AND DRIVEWAYS.

BUFFER DATA

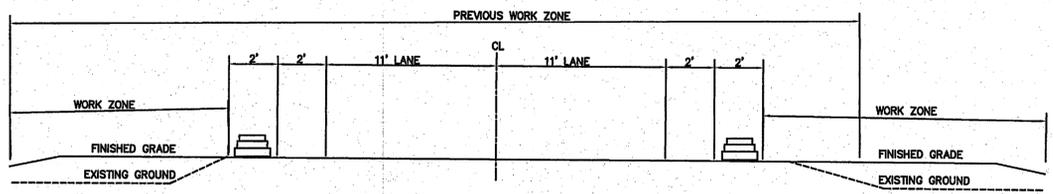
| LONGITUDINAL BUFFER SPACE - B | STATIONARY OPERATION (FEET) |
|---|-----------------------------|
| SPEED (MPH) 25 30 35 40 45 50 55 60 65 70 | |
| LENGTH (feet) 155 200 250 305 360 425 495 570 645 730 | |
| PROTECTIVE VEHICLE WITH TMA ROLL AHEAD DISTANCE - R | |
| TYPICAL PROTECTIVE VEHICLE TYPE WITH TMA | 30 MIN. |
| 4 YARD DUMP TRUCK, SERVICE TRUCK, FLAT BED, ETC | |
| TYPICAL PROTECTIVE VEHICLE (WITH TMA) LOADED WEIGHT (LBS.) | |
| MINIMUM WEIGHT SHALL BE IN ACCORDANCE WITH MANUFACTURER RECOMMENDATIONS.) | |
| ROLL AHEAD STOPPING DISTANCE ASSUMES DRY PAVEMENT | |



| | | | | | |
|---------------------|--|--|---|----------------------------|----------------|
| DESIGNED BY LP | REICHHARDT & EBE ENGINEERING, INC. CONSULTING ENGINEERS PO Box 978 423 Front St., Ste 201 Lynden, Washington 98264 Ph (360) 354-3687 Fax (360) 354-0407 | CITY OF FERDALE 2095 MAIN STREET FERDALE, WA 98248 | 2ND AVENUE STREET IMPROVEMENTS TRAFFIC CONTROL PLAN - 2 | JOB# / DWG 07038 SP2.TC | DATE 7-8-09 |
| DRAWN BY MLK/LMC | | NO. DATE REVISION BY | SCALE H:NA v:NA | SHEET 9 of 72 | |
| CHECKED BY | | | | | |



SECTION NOTES:
 1. LANE WIDTH IS APPROXIMATE, VARY TO ACHIEVE STRAIGHTEST PATH, WHILE ACCOMMODATING WB67 TRUCKS AROUND ONE SIDE OF ISLANDS.



ROUNDABOUT TRAFFIC CONTROL TYPICAL SECTION

SHEET NOTES:

1. COMPLETE ALL WORK REQUIRED FOR THE ROUNDABOUT TO OPERATE IN ACCORDANCE WITH ITS PERMANENT DESIGN. WORK ZONE LOCATIONS VARY. SEE CONTRACT PROVISIONS FOR FURTHER GUIDANCE.
2. REMOVAL OF TEMPORARY EMBANKMENT AND REMOVAL OF TEMPORARY PAVEMENT TO BE PAID FOR AS ROADWAY EXCAVATION INCLUDING HAUL.
3. THIS PLAN ASSUMES NO DROP-OFF GREATER THAN 2" WILL BE LEFT EXPOSED TO TRAFFIC DURING NON-WORKING HOURS. SEE STD SPECS 1-07.23(1) FOR ADDITIONAL GUIDANCE.
4. ACTUAL WIDTHS AND OFFSETS MAY VARY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ADJUST THE WORK AS NECESSARY WITH APPROVAL FROM THE ENGINEER.
5. "MOTORCYCLES USE EXTREME CAUTION" SIGNS (W21-1701) SHALL BE INSTALLED THROUGHOUT THE WORKZONE AND AFTER EACH SIGNIFICANT INTERSECTION ON OR OFF RAMP WHEN THE FOLLOWING ROADWAY CONDITIONS EXIST:
 - GROOVED PAVEMENT
 - ABRUPT LANE EDGE
 - STEEL PLATES
 - LODGE GRAVEL OR EARTH
 SPECIFIC SIGNS FOR EACH OF THE CONDITIONS NOTED SHALL BE INSTALLED ALONG WITH THE "MOTORCYCLES USE EXTREME CAUTION" SIGNS.

GENERAL NOTES:

- LEGEND**
- WORK ZONE
 - SIGN LOCATION - POST MOUNTED
 - SEQUENTIAL ARROW SIGN
 - SIGN LOCATION - TRIPOD MOUNTED
 - FLAGGING STATION
 - OR TRAFFIC SAFETY DRUMS WITH TYPE C LIGHTS
 - PROTECTIVE VEHICLE
 - PROTECTIVE VEHICLE WITH TRUCK-MOUNTED IMPACT ATTENUATOR
 - PCMS PORTABLE CHANGEABLE MESSAGE SIGN
 - TEMPORARY SIGN SUPPORT
 - TRAFFIC FLOW ARROW

CHANNELIZING DEVICE SPACING (FEET)

| MPH | TAPER | TANGENT |
|-------|-------|---------|
| 50/70 | 40 | 60 |
| 35/45 | 30 | 60 |
| 25/30 | 20 | 40 |

SHOULDER OR LANE WIDTH (FEET) | MINIMUM TAPER LENGTH IN FEET (L)

| POSTED SPEED LIMIT (MPH) | 25 | 30 | 35 | 40 | 45 | 50 | 55 | 60 | 65 | 70 |
|--------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 8 | 63 | 80 | 123 | 165 | 270 | 330 | 360 | 390 | 420 | 450 |
| 10 | 105 | 150 | 204 | 270 | 450 | 550 | 600 | 650 | 700 | 750 |
| 11 | 115 | 165 | 225 | 295 | 495 | 550 | 605 | 660 | 715 | 770 |
| 12 | 125 | 180 | 245 | 320 | 540 | 600 | 660 | 720 | 780 | 840 |

3 DEVICES MINIMUM SPACED 10' O.C. IN TAPERS FOR SHOULDER WIDTHS LESS THAN 8 FEET

SIGN SPACING = X (FEET)

| | | |
|---|----------------|------|
| RURAL HIGHWAYS | 60/65 MPH | 600± |
| RURAL ROADS | 45/55 MPH | 500± |
| URBAN ARTERIALS & RURAL ROADS | 35/40 MPH | 350± |
| RURAL ROADS, RESIDENTIAL & BUSINESS DISTRICTS | 25/30 MPH | 200± |
| URBAN STREETS | 25 MPH OR LESS | 100± |

*W SIGNS ARE 48"x48" BLACK ON ORANGE UNLESS OTHERWISE DESIGNATED

ALL SPACING MAY BE ADJUSTED TO ACCOMMODATE INTERCHANGE RAMP, AT-GRADE INTERSECTIONS, AND DRIVEWAYS.

BUFFER DATA

LONGITUDINAL BUFFER SPACE = B

| SPEED (MPH) | 25 | 30 | 35 | 40 | 45 | 50 | 55 | 60 | 65 | 70 |
|---------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| LENGTH (feet) | 155 | 200 | 250 | 305 | 360 | 425 | 495 | 570 | 645 | 730 |

PROTECTIVE VEHICLE WITH TMA ROLL AHEAD DISTANCE = R

| TYPICAL PROTECTIVE VEHICLE TYPE WITH TMA | STATIONARY OPERATION (FEET) |
|---|-----------------------------|
| 4-YARD DUMP TRUCK, SERVICE TRUCK, FLAT BED, ETC | 30 MIN. |

ROLL AHEAD STOPPING DISTANCE ASSUMES DRY PAVEMENT



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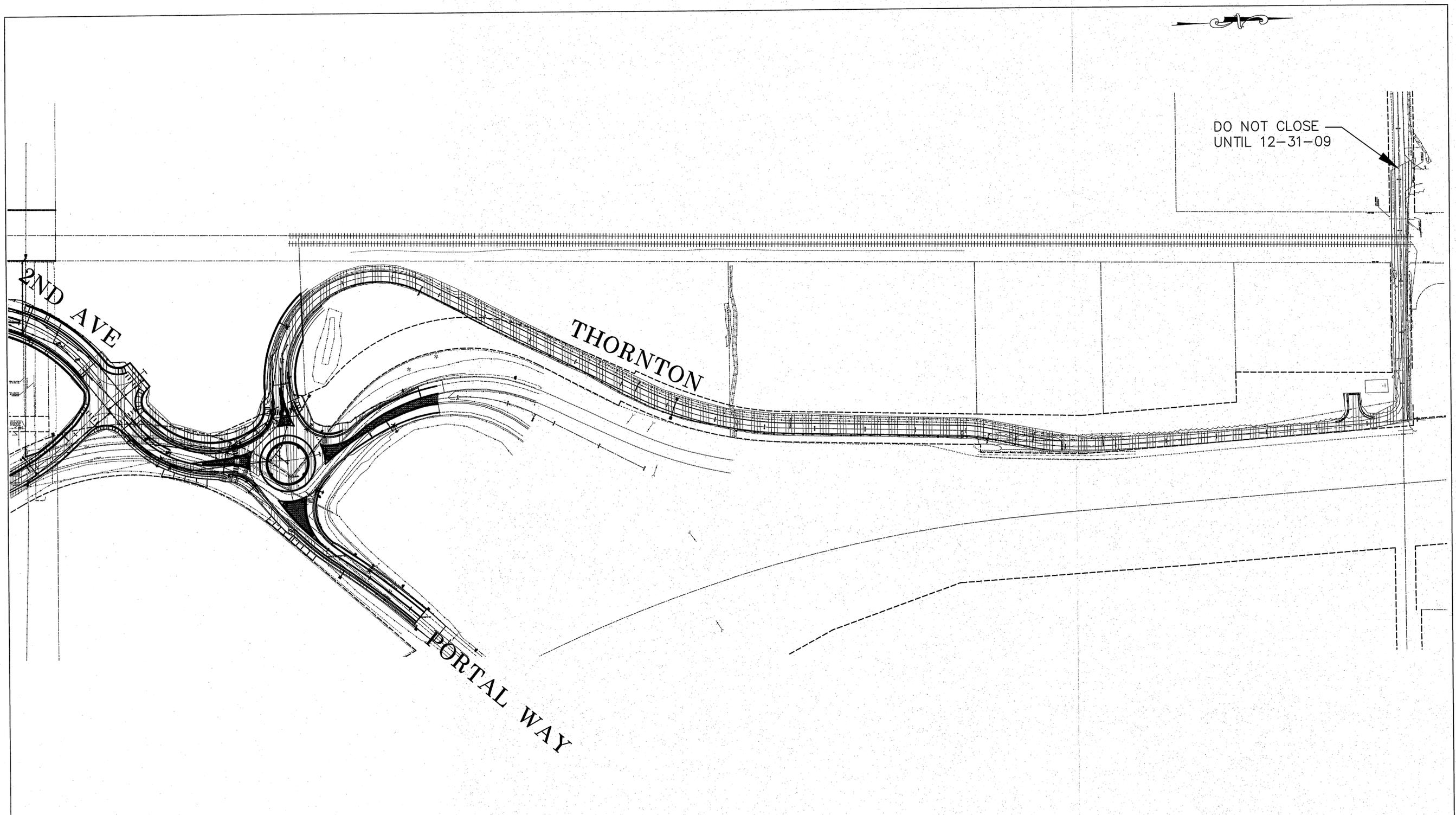
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CITY OF FERDALE
 2095 MAIN STREET
 FERDALE, WA 98248

2ND AVENUE
 STREET IMPROVEMENTS
 TRAFFIC CONTROL PLAN - 3

JOB# / DWG 07038 SP2.TC
 SCALE H:NA v:NA

DATE 7-8-09
 SHEET 10 of 72



PHASE 2=



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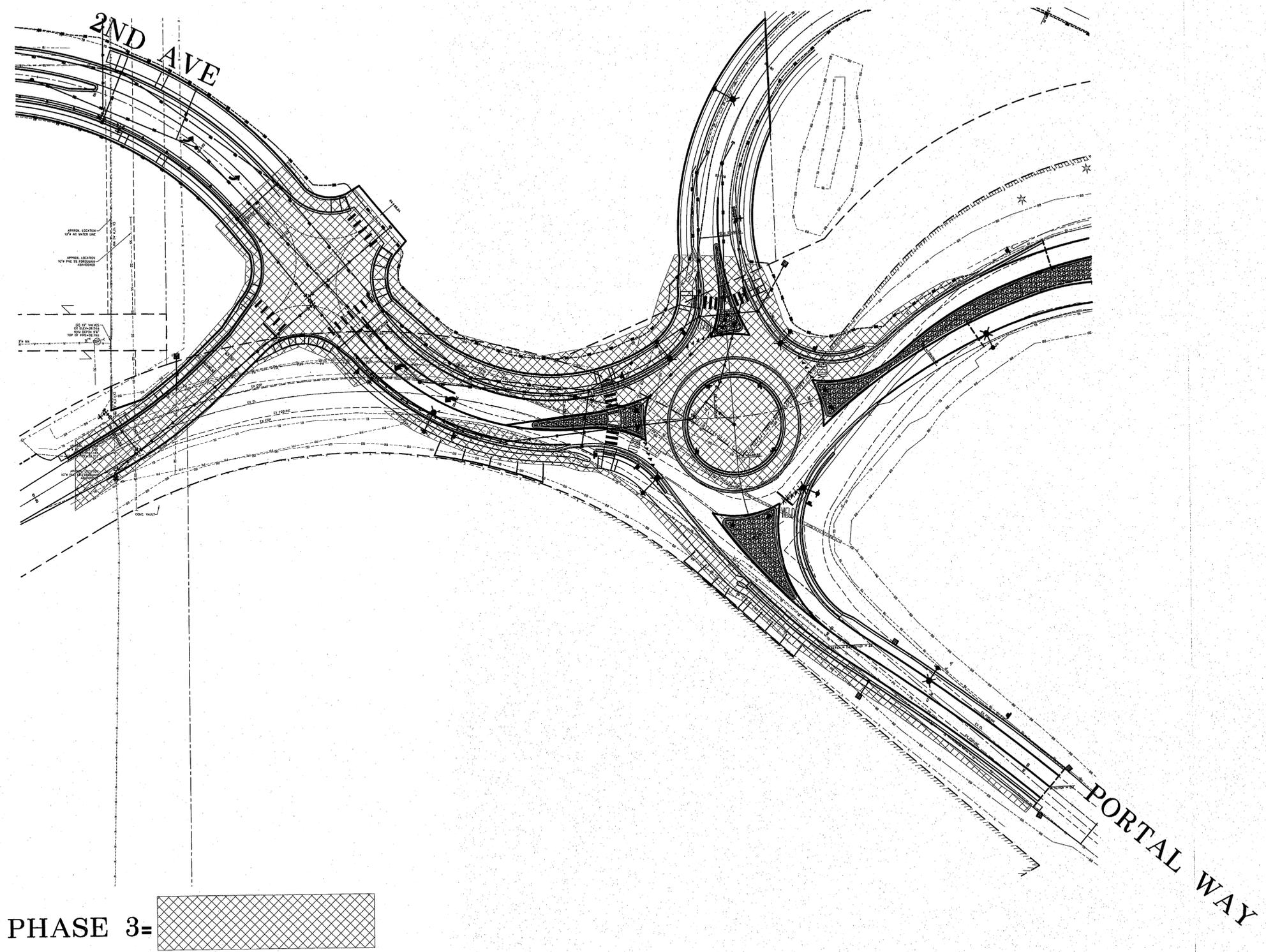
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2095 MAIN STREET
FERDALE, WA 98248

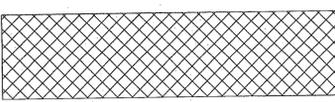
2ND AVENUE
STREET IMPROVEMENTS
CONSTRUCTION PHASING, PHASE 2

| | |
|-------------------------|-------------------|
| JOB# / DWG 07038 SP2 | DATE 7-8-09 |
| SCALE H:NA v:NA | SHEET 12 of 72 |

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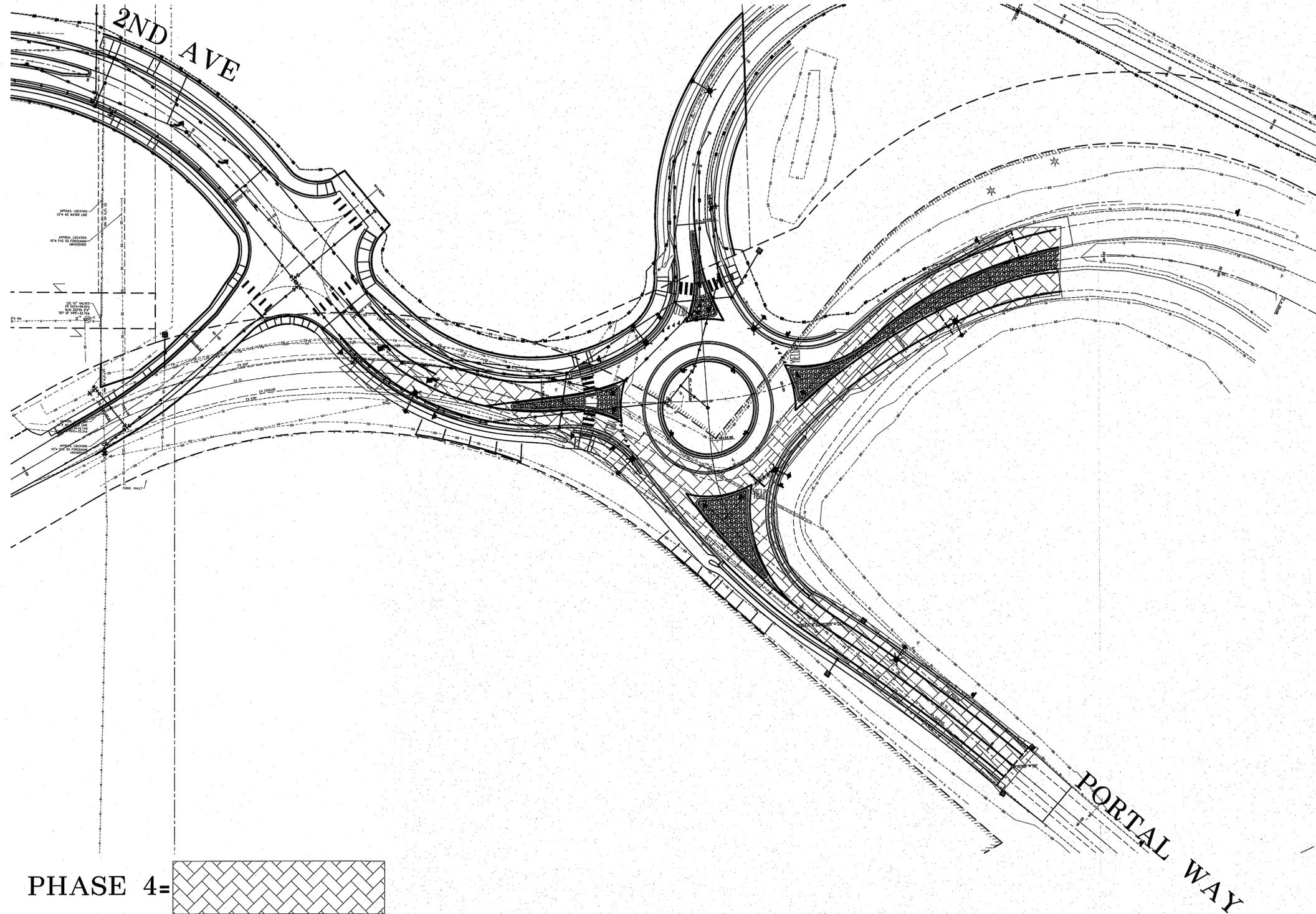


PHASE 3=



| | | | | | | |
|--|--|---------------------------------|--|---|------------------------------|--------------------------|
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| | | | | | SCALE H:NA V:NA | SHEET 14 of 72 |

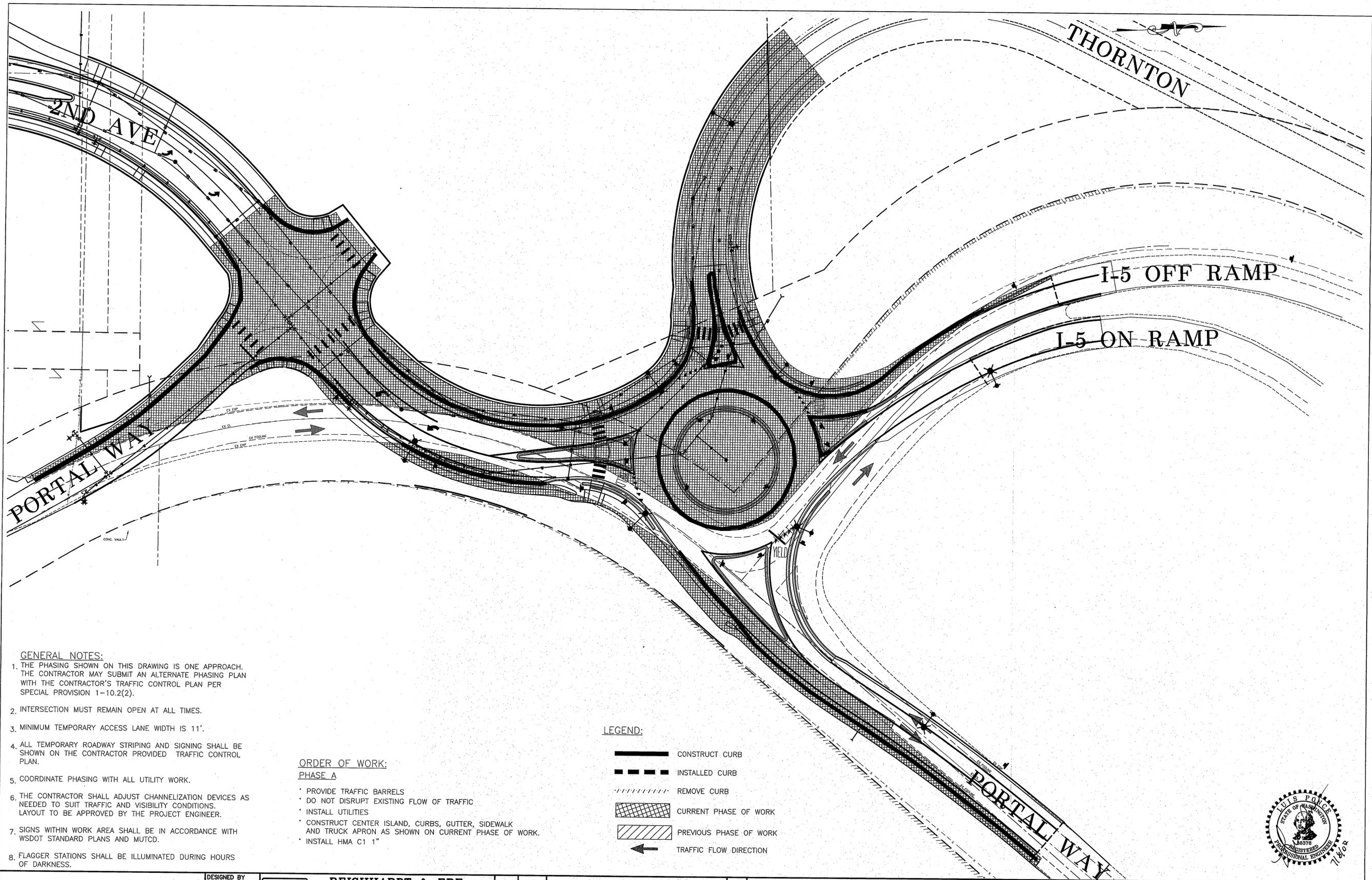
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PHASE 4=



| | | | | | | | | | |
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| DRAWN BY MLK/LMC | | SCALE H:NA v:NA | SHEET | | 15 of 72 | | | | |
| CHECKED BY | | | | | | | | | |



GENERAL NOTES:

1. THE PHASING SHOWN ON THIS DRAWING IS ONE APPROACH. THE CONTRACTOR MAY SUBMIT AN ALTERNATE PHASING PLAN WITH THE CONTRACTOR'S TRAFFIC CONTROL PLAN PER SPECIAL PROVISION 1-10.2(2).
2. INTERSECTION MUST REMAIN OPEN AT ALL TIMES.
3. MINIMUM TEMPORARY ACCESS LANE WIDTH IS 11'.
4. ALL TEMPORARY ROADWAY STRIPING AND SIGNING SHALL BE SHOWN ON THE CONTRACTOR PROVIDED TRAFFIC CONTROL PLAN.
5. COORDINATE PHASING WITH ALL UTILITY WORK.
6. THE CONTRACTOR SHALL ADJUST CHANNELIZATION DEVICES AS NEEDED TO SUIT TRAFFIC AND VISIBILITY CONDITIONS. LAYOUT TO BE APPROVED BY THE PROJECT ENGINEER.
7. SIGNS WITHIN WORK AREA SHALL BE IN ACCORDANCE WITH WSDOT STANDARD PLANS AND MUTCD.
8. FLAGGER STATIONS SHALL BE ILLUMINATED DURING HOURS OF DARKNESS.

**ORDER OF WORK:
PHASE A**

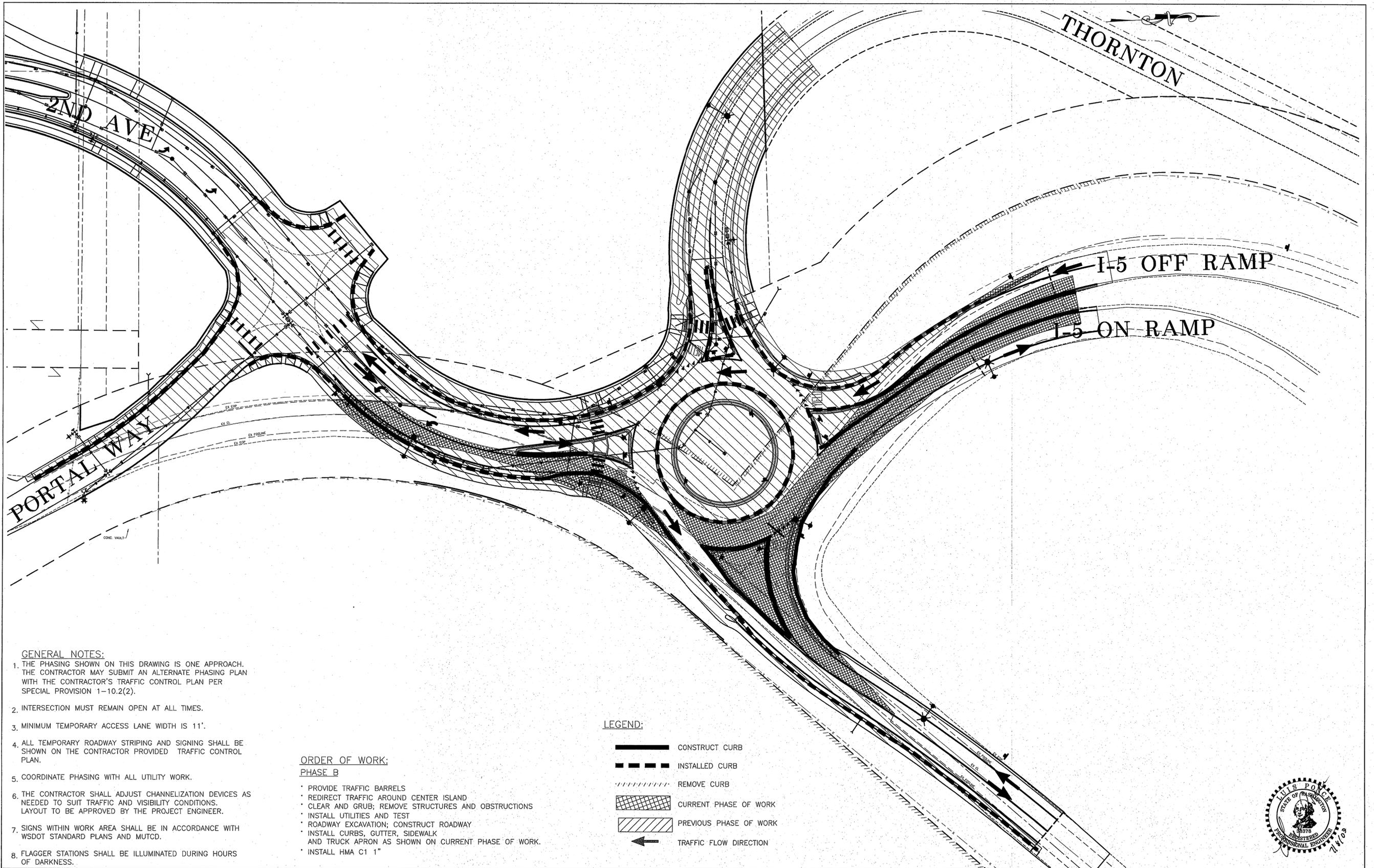
- PROVIDE TRAFFIC BARRELS
- DO NOT DISRUPT EXISTING FLOW OF TRAFFIC
- INSTALL UTILITIES
- CONSTRUCT CENTER ISLAND, CURBS, GUTTER, SIDEWALK AND TRUCK APRON AS SHOWN ON CURRENT PHASE OF WORK.
- INSTALL HMA C1 1"

LEGEND:

- CONSTRUCT CURB
- - - - - INSTALLED CURB
- REMOVE CURB
- [Cross-hatched] CURRENT PHASE OF WORK
- [Diagonal lines] PREVIOUS PHASE OF WORK
- ← TRAFFIC FLOW DIRECTION



| | | | | | |
|--|--|-------------------------------|---|---|--|
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|--|--|-------------------------------|---|---|--|



GENERAL NOTES:

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6. THE CONTRACTOR SHALL ADJUST CHANNELIZATION DEVICES AS NEEDED TO SUIT TRAFFIC AND VISIBILITY CONDITIONS. LAYOUT TO BE APPROVED BY THE PROJECT ENGINEER.
7. SIGNS WITHIN WORK AREA SHALL BE IN ACCORDANCE WITH WSDOT STANDARD PLANS AND MUTCD.
8. FLAGGER STATIONS SHALL BE ILLUMINATED DURING HOURS OF DARKNESS.

**ORDER OF WORK:
PHASE B**

- PROVIDE TRAFFIC BARRELS
- REDIRECT TRAFFIC AROUND CENTER ISLAND
- CLEAR AND GRUB; REMOVE STRUCTURES AND OBSTRUCTIONS
- INSTALL UTILITIES AND TEST
- ROADWAY EXCAVATION; CONSTRUCT ROADWAY
- INSTALL CURBS, GUTTER, SIDEWALK AND TRUCK APRON AS SHOWN ON CURRENT PHASE OF WORK.
- INSTALL HMA C1 1"

LEGEND:

- CONSTRUCT CURB
- - - - - INSTALLED CURB
- REMOVE CURB
- [Cross-hatched] CURRENT PHASE OF WORK
- [Diagonal lines] PREVIOUS PHASE OF WORK
- ← TRAFFIC FLOW DIRECTION



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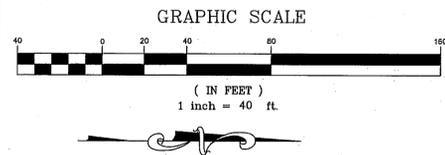
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CITY OF FERDALE
2095 MAIN STREET
FERDALE, WA 98248

2ND AVENUE
STREET IMPROVEMENTS
PHASE 4, CONSTRUCTION PHASING B

| | |
|-------------------|----------|
| JOB# / DWG | DATE |
| 07038 SP2-PHASING | 7-8-09 |
| SCALE | SHEET |
| H: NA v: NA | 17 of 72 |

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LEGEND

SYMBOL

WASHINGTON STATE DEPT. OF ECOLOGY
BEST MANAGEMENT PRACTICES (BMP)
REF.: STORMWATER MANAGEMENT MANUAL
FOR WESTERN WASHINGTON, 2005



BMP E2.10 STABILIZED CONSTRUCTION
ENTRANCE AND TIRE WASH
SEE DETAIL THIS SHEET



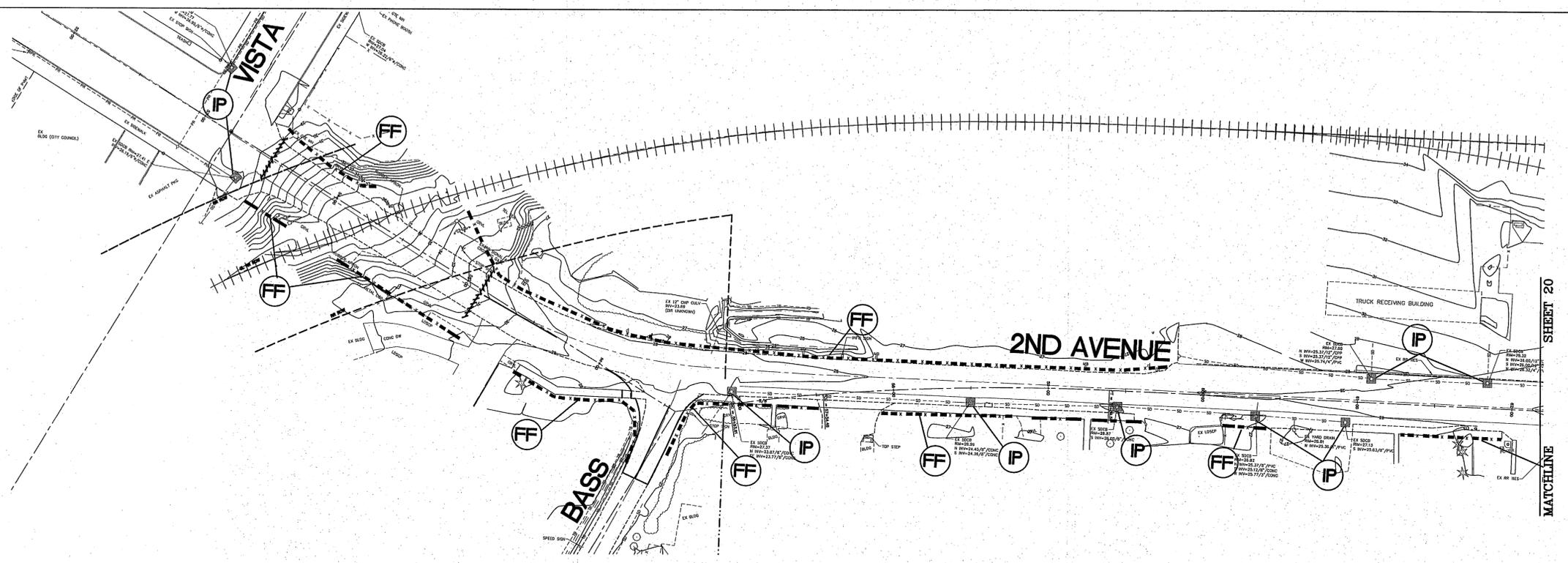
BMP E3.10 FILTER FENCE - SEE DETAIL THIS SHEET



BMP E3.30 INLET PROTECTION - PLACE SEDIMENT
FILTER AROUND OR OVER CATCH BASINS



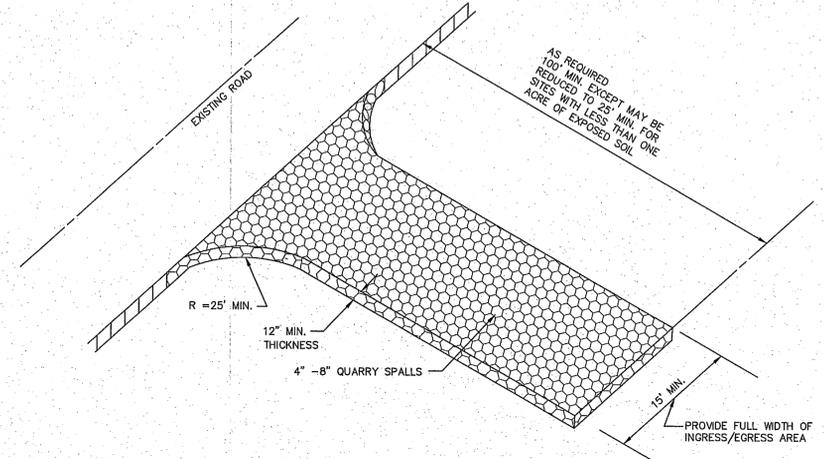
BMP E3.15 STRAW BALE BARRIER
SEE DETAIL THIS SHEET



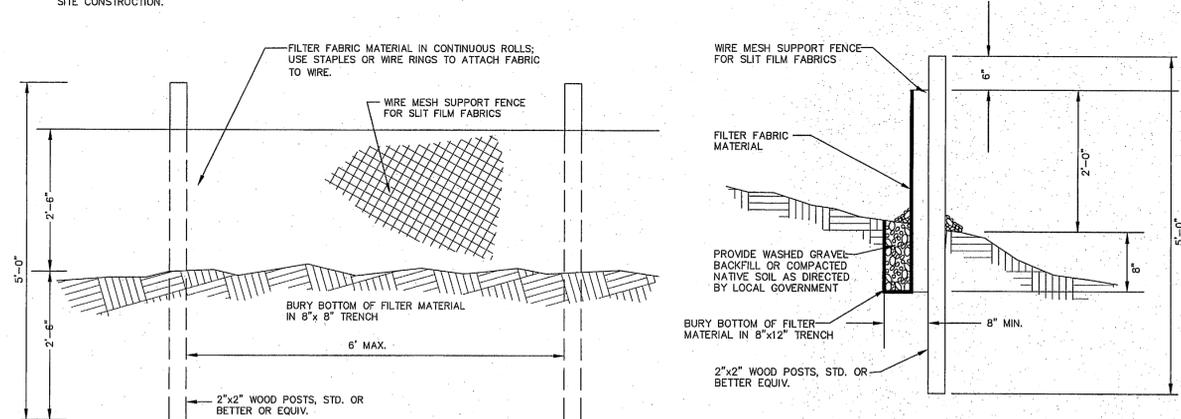
MATCHLINE SHEET 20

GENERAL NOTES

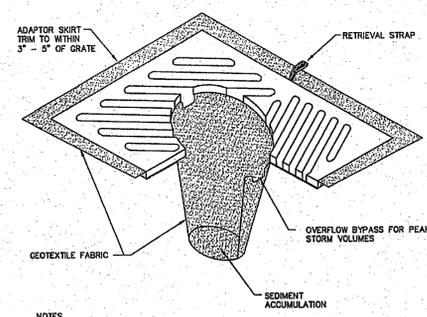
- ALL WORK AND MATERIALS SHALL BE IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
- ALL CUT AND FILL SLOPES SHALL BE SEEDED AND FERTILIZED FOR EROSION CONTROL. CONTRACTOR SHALL BE RESPONSIBLE FOR SLOPE EROSION UNTIL VEGETATION IS FIRMLY ESTABLISHED.
- CONTRACTOR SHALL INFORM THE ENGINEER AND OBTAIN APPROVAL FROM THE ENGINEER OF ANY PROPOSED CHANGES IN PLAN PRIOR TO CONSTRUCTION OF THAT CHANGE. CONTRACTOR SHALL KEEP RECORD OF DEVIATIONS AND FORWARD TO THE ENGINEER.
- CONTRACTOR WILL HAVE A WATER TRUCK AVAILABLE ON SITE AT ALL TIMES. CONTRACTOR WILL WATER SURFACES OFTEN ENOUGH TO ABATE DUST AS APPROVED BY THE ENGINEER. WATERING WILL INCLUDE WEEKENDS AND HOLIDAYS.
- THE CONTRACTOR WILL CONSTRUCT A CONSTRUCTION ENTRANCE AS SHOWN IN THE CONSTRUCTION ENTRANCE DETAIL ON THIS SHEET AT EACH ENTRANCE FROM A STAGING OR WORK AREA ONTO A PUBLIC ROAD OR NON-STAGING OR NON-WORKING AREA.
- ALL DISTURBED AREAS SHALL BE HYDROSEEDED. GRASS SEEDING SHALL BE BROADCAST IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTATION OF THE SEDIMENTATION AND EROSION CONTROL MEASURES AS SHOWN.
- THE CONSTRUCTED EROSION CONTROL AND SEDIMENTATION PLAN SHALL BE APPROVED BY THE ENGINEER PRIOR TO PERFORMING ANY SITE GRADING OR CLEARING.
- MAINTENANCE AND OPERATION OF THE EROSION CONTROL AND SEDIMENTATION SYSTEM SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTATION OF THE SEDIMENTATION AND EROSION CONTROL MEASURES.
- ANY VEGETATION NOT IN THE CONSTRUCTION AREA SHALL BE LEFT UNDISTURBED.
- ALL CLEARING LIMITS SHALL BE VISIBLY MARKED PRIOR TO CLEARING.
- ALL STORM DRAIN FACILITIES WITHIN THE PROJECT BOUNDARY, OR WHICH ARE IMPACTED BY THE PROJECT ARE TO BE CLEARED OF SEDIMENT AND DEBRIS PRIOR TO FINAL ACCEPTANCE OF THE PROJECT.
- THIS PLAN REPRESENTS THE MINIMUM REQUIREMENTS FOR THIS PROJECT. ADDITIONAL EROSION CONTROL MAY BE REQUIRED BY THE ENGINEER AS ARE FOUND NECESSARY.
- THE TEMPORARY EROSION CONTROL SYSTEMS SHALL BE INSTALLED PRIOR TO ALL OTHER SITE CONSTRUCTION.



STABILIZED CONSTRUCTION ENTRANCE
NTS



FILTER FABRIC FENCE DETAIL
NTS



CATCH BASIN INSERT
NTS

- NOTES
- INSERT SHALL BE INSTALLED PRIOR TO CLEARING AND GRADING ACTIVITY, OR UPON PLACEMENT OF A NEW CATCH BASIN.
 - SEDIMENT SHALL BE REMOVED FROM THE UNIT WHEN IT BECOMES HALF FULL.
 - SEDIMENT REMOVAL SHALL BE ACCOMPLISHED BY REMOVING THE INSERT, EMPTYING, AND RE-INSERTING IT INTO THE CATCH BASIN.



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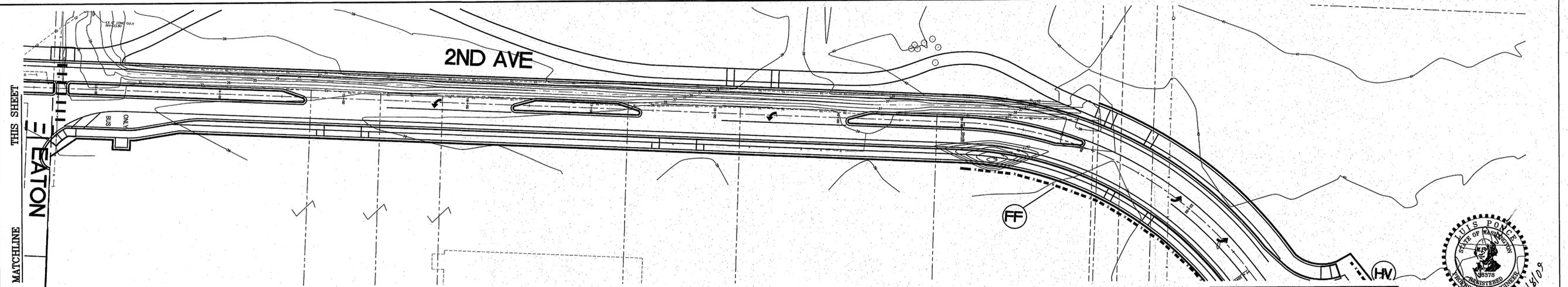
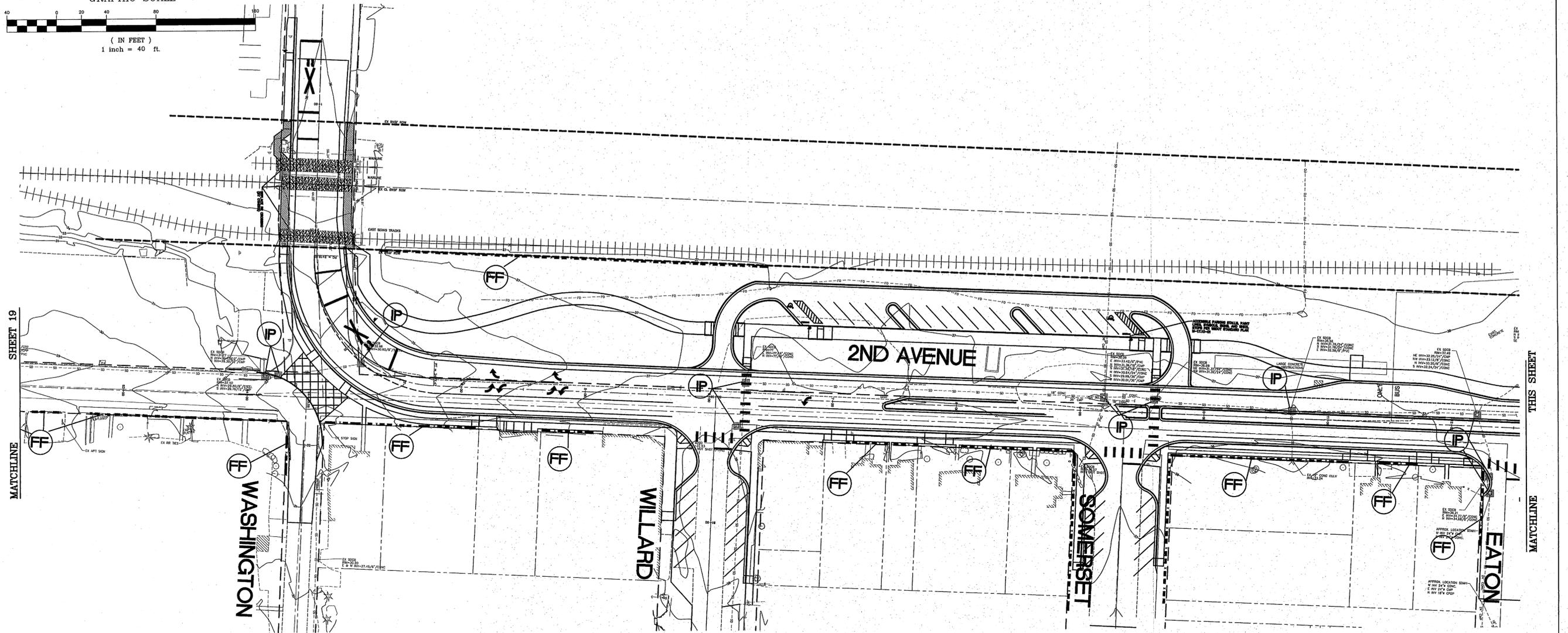
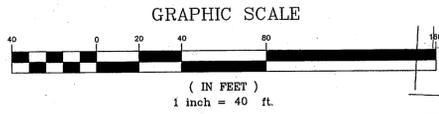
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CITY OF FERNDALE
2095 MAIN STREET
FERNDALE, WA 98248

2ND AVENUE
STREET IMPROVEMENTS
EROSION CONTROL PLAN

| | |
|--------------------|----------|
| JOB# / DWG | DATE |
| 07038 SP2 | 7-8-09 |
| SCALE | SHEET |
| H: 1" = 40' v: N/A | 19 of 72 |



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CITY OF FERDALE
2095 MAIN STREET
FERDALE, WA 98248

2ND AVENUE
STREET IMPROVEMENTS
EROSION CONTROL PLAN

JOB# / DWG 07038 SP2
SCALE H: 1" = 40' v: N/A

DATE 7-8-09
SHEET 20 of 72

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SHEET 20
MATCHLINE

SHEET 22
MATCHLINE

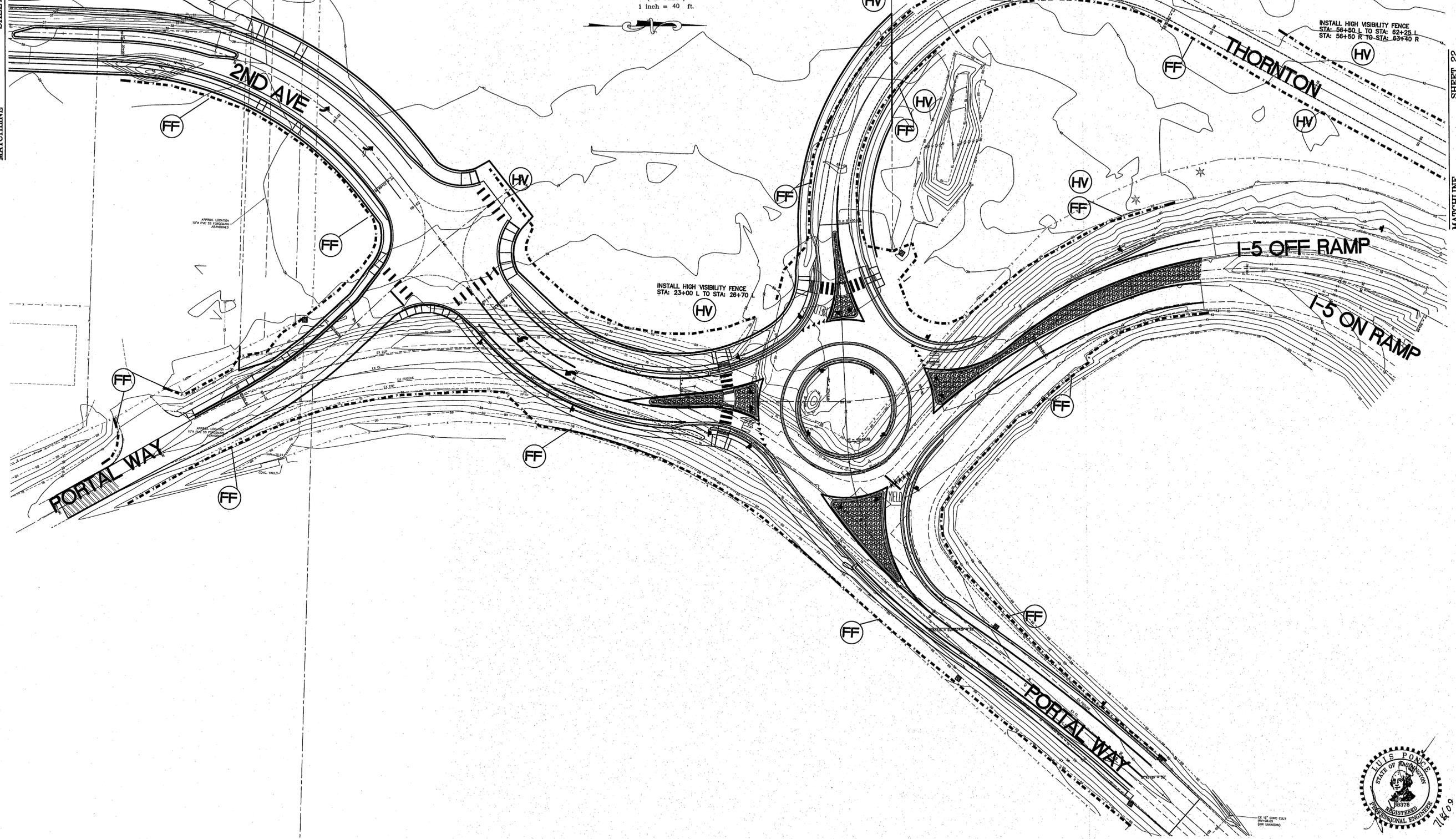
GRAPHIC SCALE

(IN FEET)
1 inch = 40 ft.

INSTALL HIGH VISIBILITY FENCE
STA: 50+80 L TO STA: 54+00 L
STA: 30+00 (SECOND) R TO STA:
54+00 R

INSTALL HIGH VISIBILITY FENCE
STA: 58+50 L TO STA: 62+25 L
STA: 58+50 R TO STA: 63+40 R

INSTALL HIGH VISIBILITY FENCE
STA: 23+00 L TO STA: 28+70



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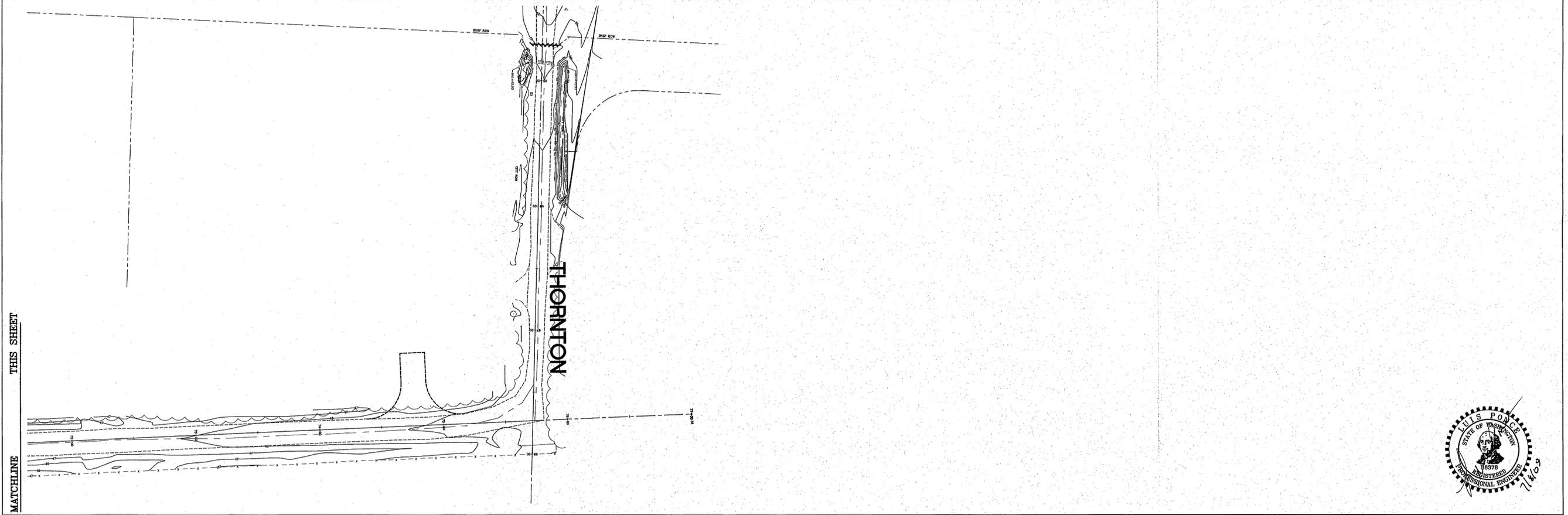
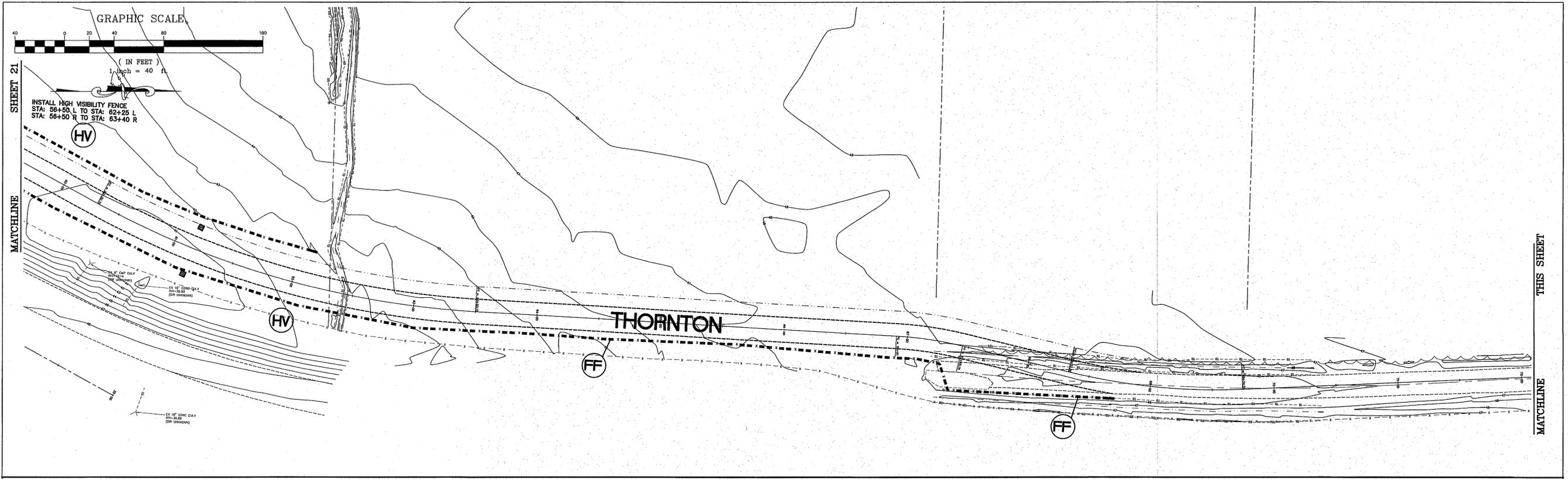
CITY OF FERDALE
2095 MAIN STREET
FERDALE, WA 98248

2ND AVENUE
STREET IMPROVEMENTS
EROSION CONTROL PLAN

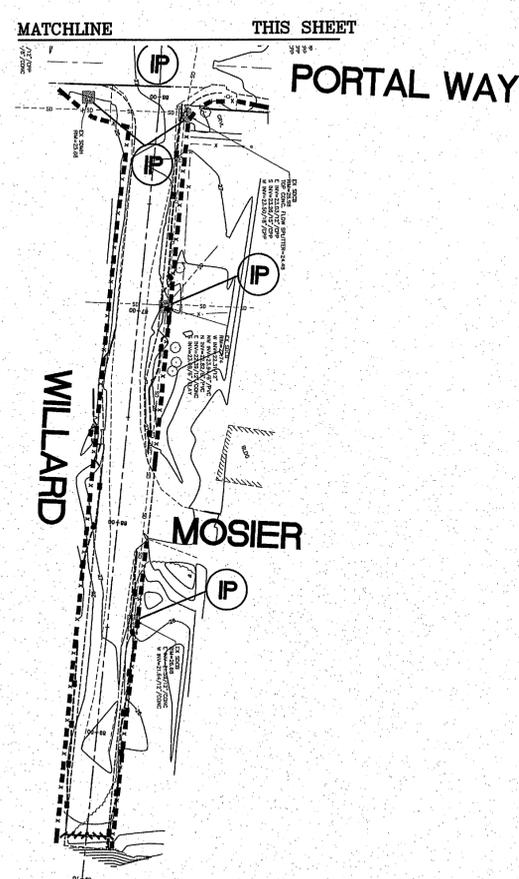
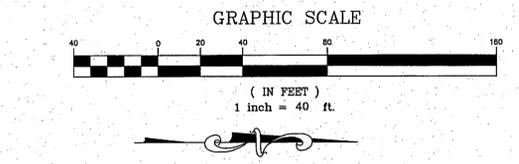
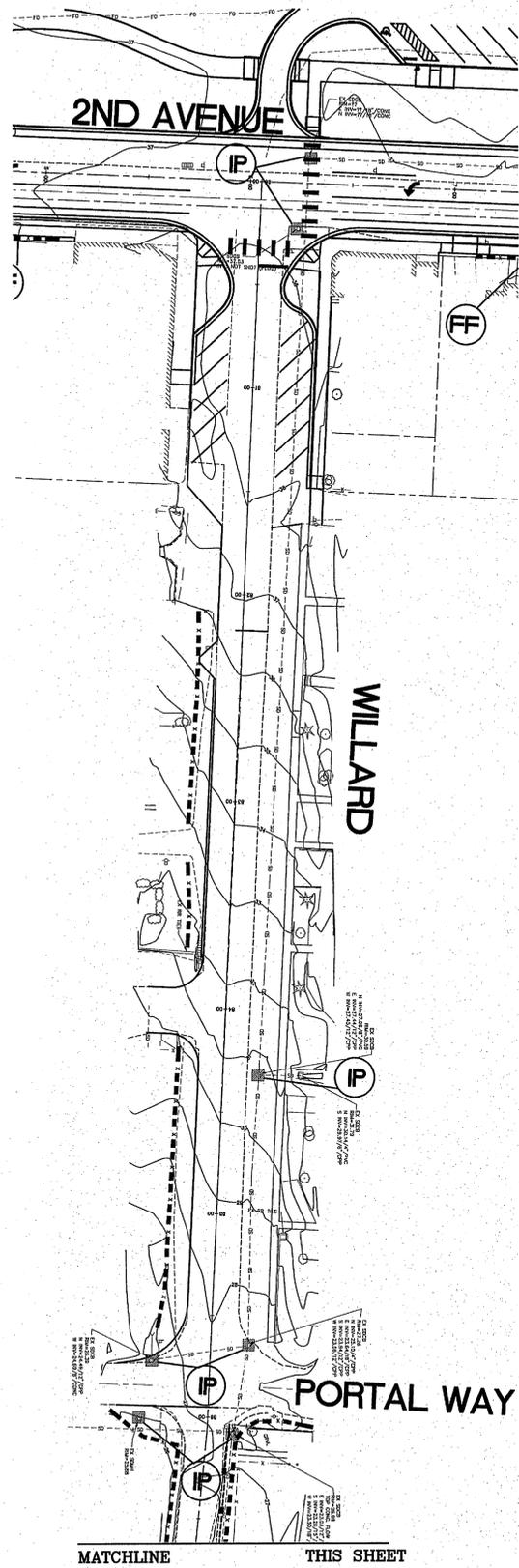
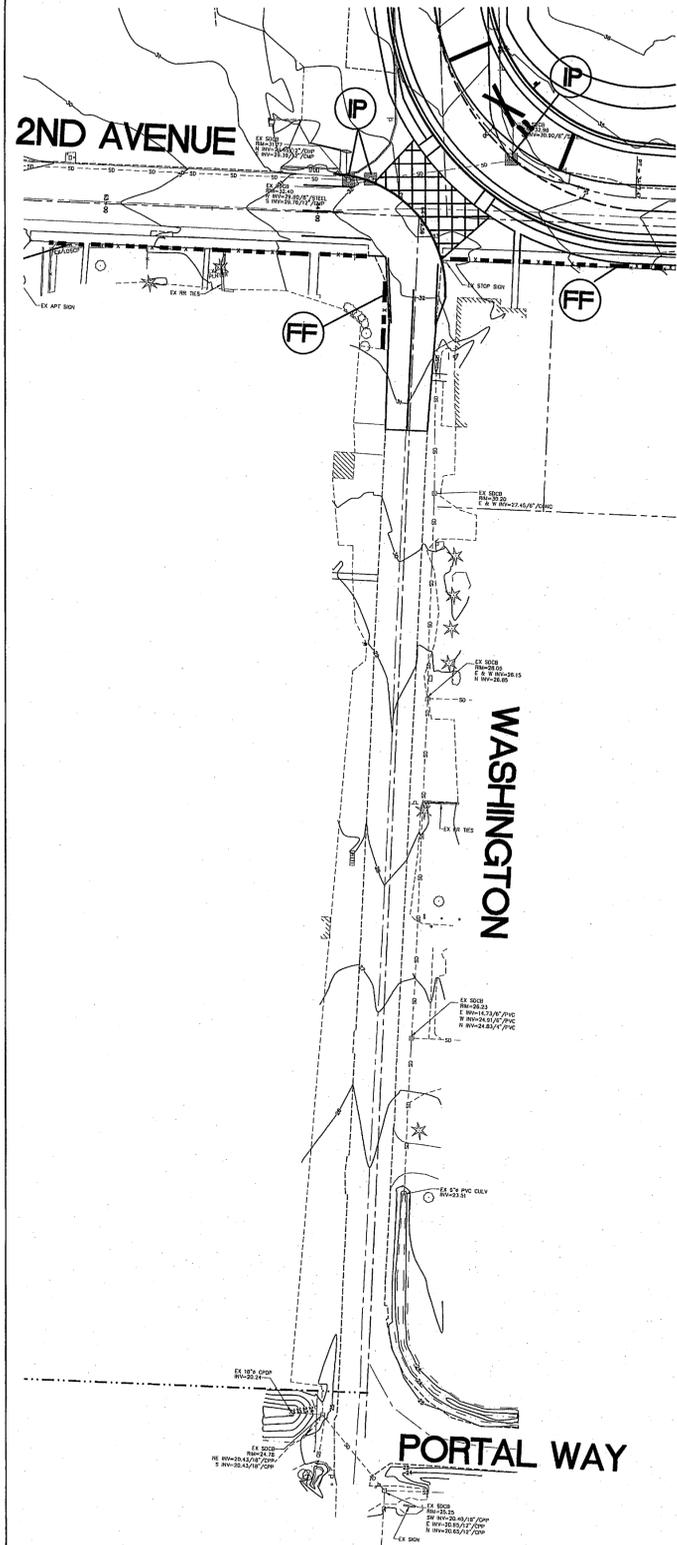
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SCALE
1" = 40' v: N/A

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7-8-09
SHEET
21 of 72

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| DRAWN BY MLK/LMC | | NO. | DATE | REVISION | BY | SCALE H: 1"=40' v: N/A | SHEET 22 of 72 | | |
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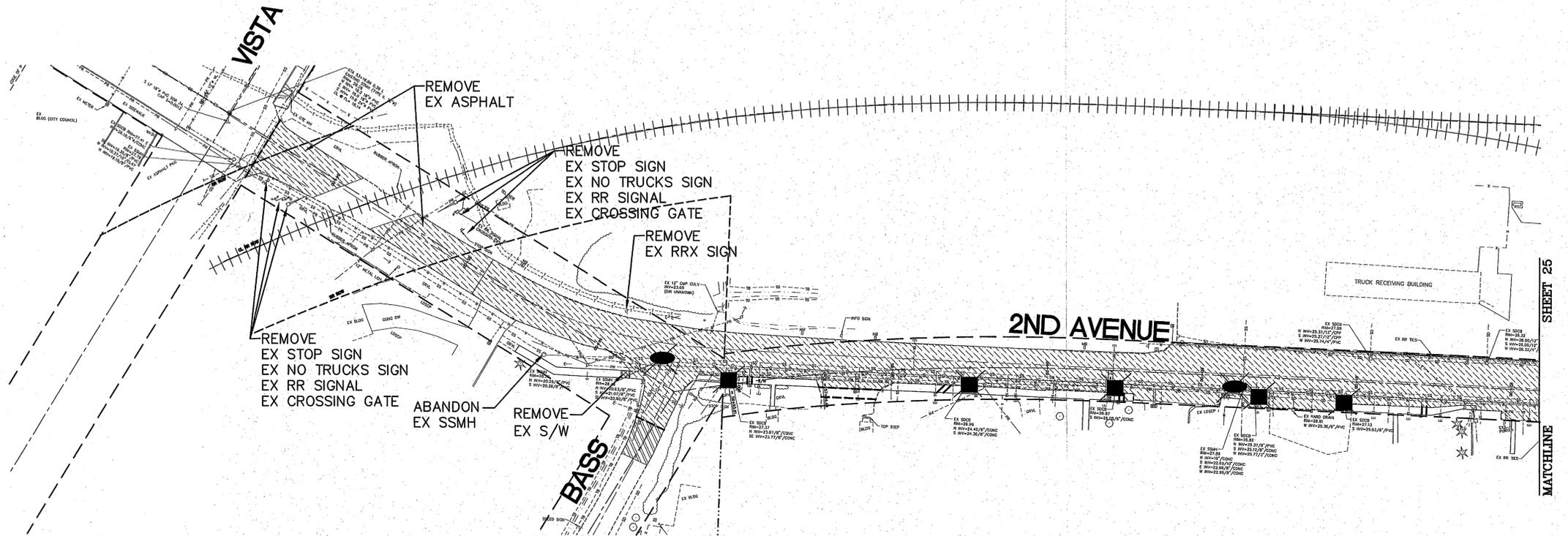
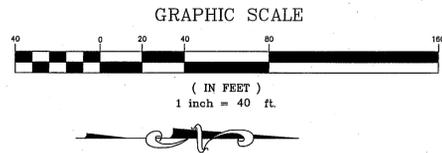
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CITY OF FERDALE
2095 MAIN STREET
FERDALE, WA 98248

2ND AVENUE
STREET IMPROVEMENTS
EROSION CONTROL PLAN

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|-----------------------------|--------------------------|----------------|
| JOB# / DWG 07038 | SP2 | DATE 7-8-09 |
| SCALE H: 1" = 40' v: N/A | SHEET 23 of 72 | |

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LEGEND

-  = EX CONCRETE PAVEMENT REMOVAL
-  = EX ASPHALT REMOVAL
-  = EX SIDEWALK REMOVAL
-  = PLANING PAVEMENT
-  = SAWCUT
-  = REMOVE EX SDCB OR SDMH
-  = REMOVE EX SSMH



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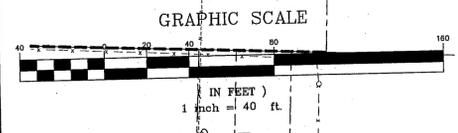
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2095 MAIN STREET
FERNDALE, WA 98248

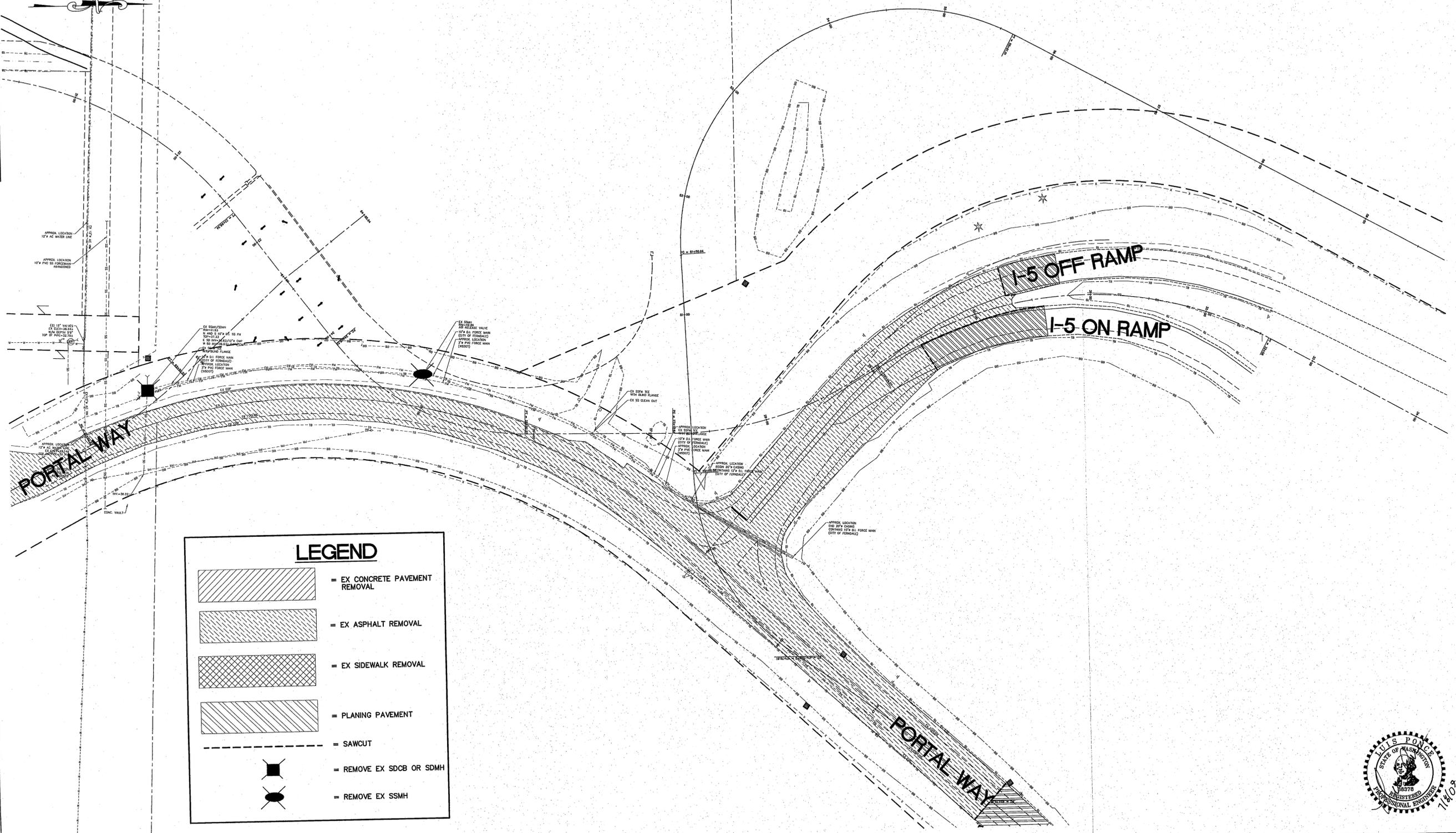
2ND AVENUE
STREET IMPROVEMENTS
DEMOLITION PLAN

JOB# / DWG
07038 SP2
SCALE
H: 1" = 40' v: N/A

DATE
7-8-09
SHEET
24 of 72



SHEET 26
MATCHLINE



LEGEND

- = EX CONCRETE PAVEMENT REMOVAL
- = EX ASPHALT REMOVAL
- = EX SIDEWALK REMOVAL
- = PLANING PAVEMENT
- = SAWCUT
- = REMOVE EX SDCB OR SDMH
- = REMOVE EX SSMH



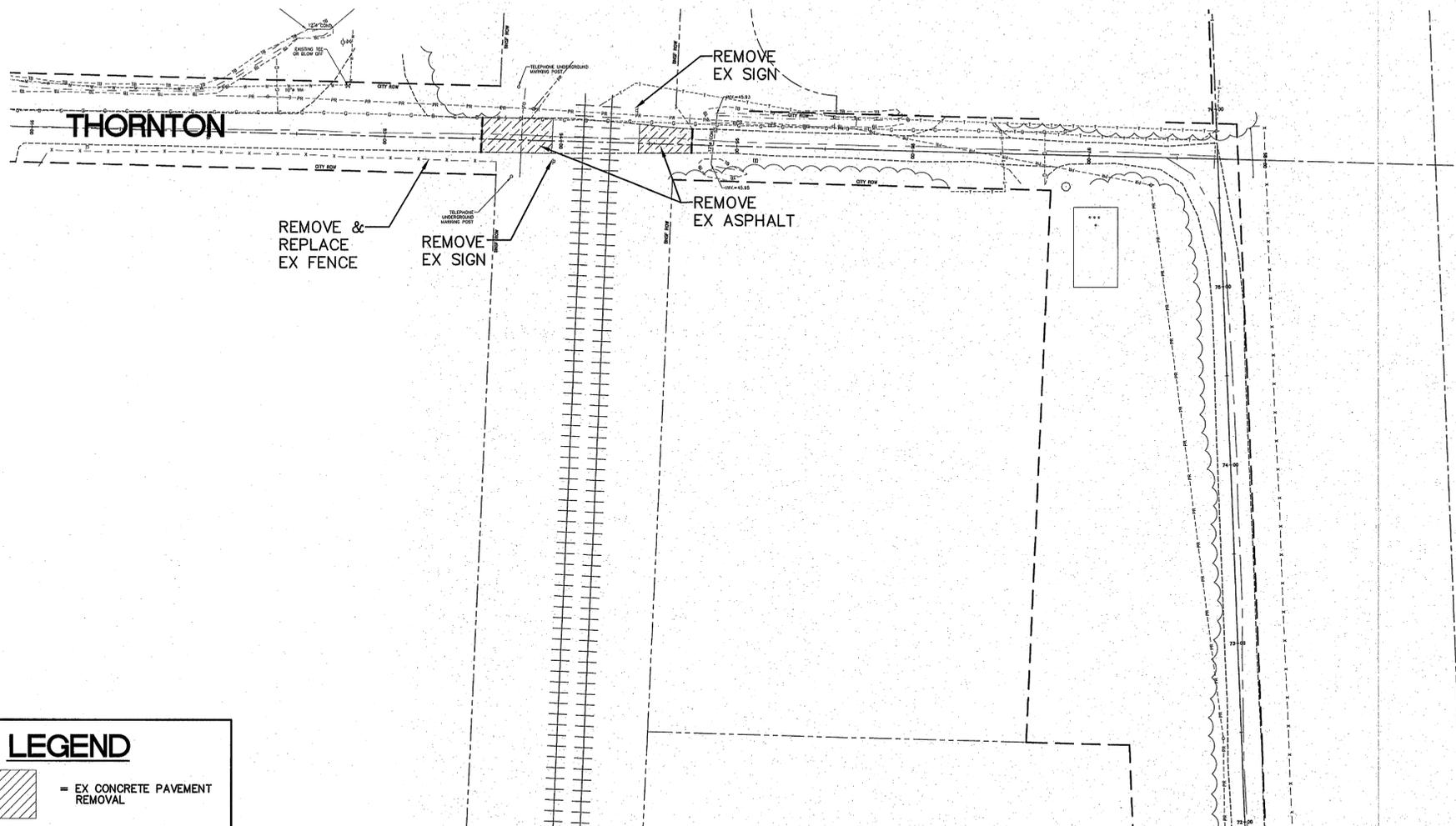
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|--|---|-------------------------------|---|---|--|--|
| DESIGNED BY LP DRAWN BY MLK/LMC CHECKED BY | REICHHARDT & EBE ENGINEERING, INC. <small>CONSULTING ENGINEERS</small> PO Box 978 423 Front St., Ste 201 Lynden, Washington 98264 Ph (360) 354-3687 Fax (360) 354-0407 | NO. DATE REVISION BY | CITY OF FERDALE 2095 MAIN STREET FERDALE, WA 98248 | 2ND AVENUE STREET IMPROVEMENTS DEMOLITION PLAN | JOB# / DWG 07038 SP2 SCALE H: 1" = 40' V: N/A | DATE 7-8-09 SHEET 26 of 72 |
|--|---|-------------------------------|---|---|--|--|

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GRAPHIC SCALE



(IN FEET)
1 inch = 40 ft.



LEGEND

-  = EX CONCRETE PAVEMENT REMOVAL
-  = EX ASPHALT REMOVAL
-  = EX SIDEWALK REMOVAL
-  = SAWCUT
-  = REMOVE EX SDCB OR SDMH
-  = REMOVE EX SSMH



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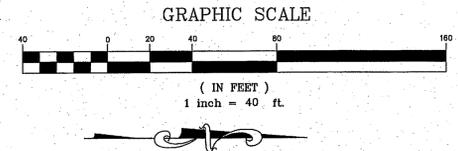
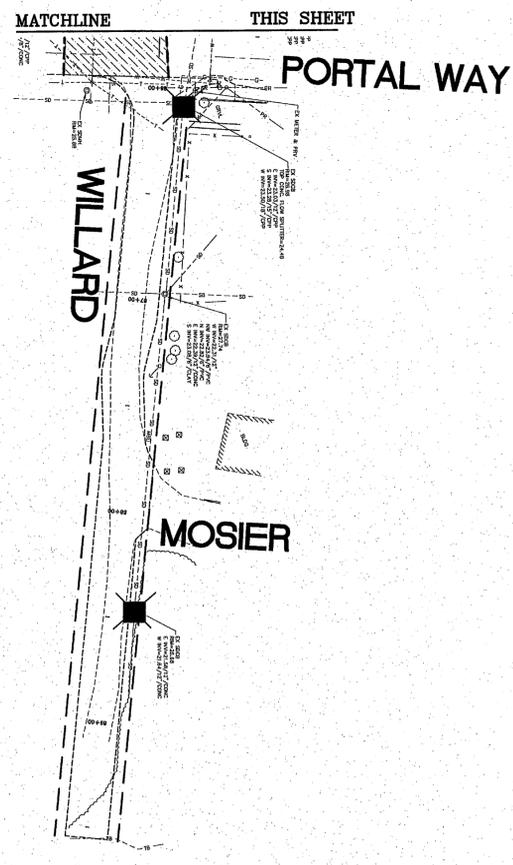
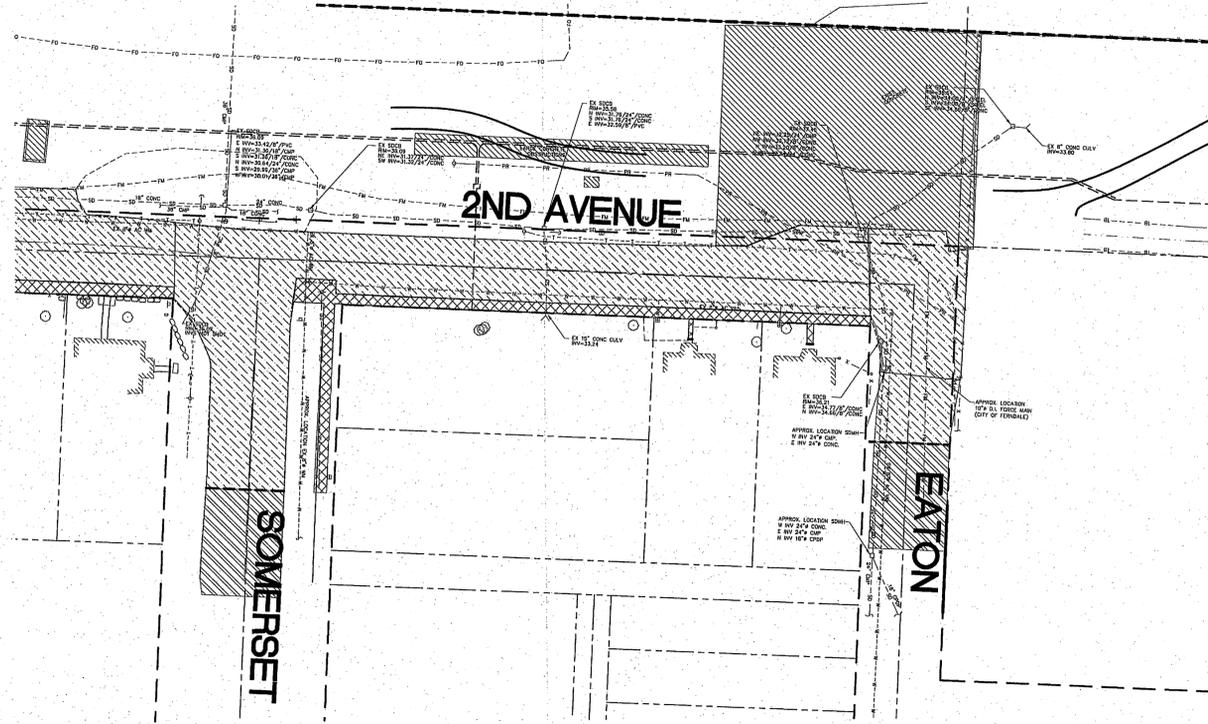
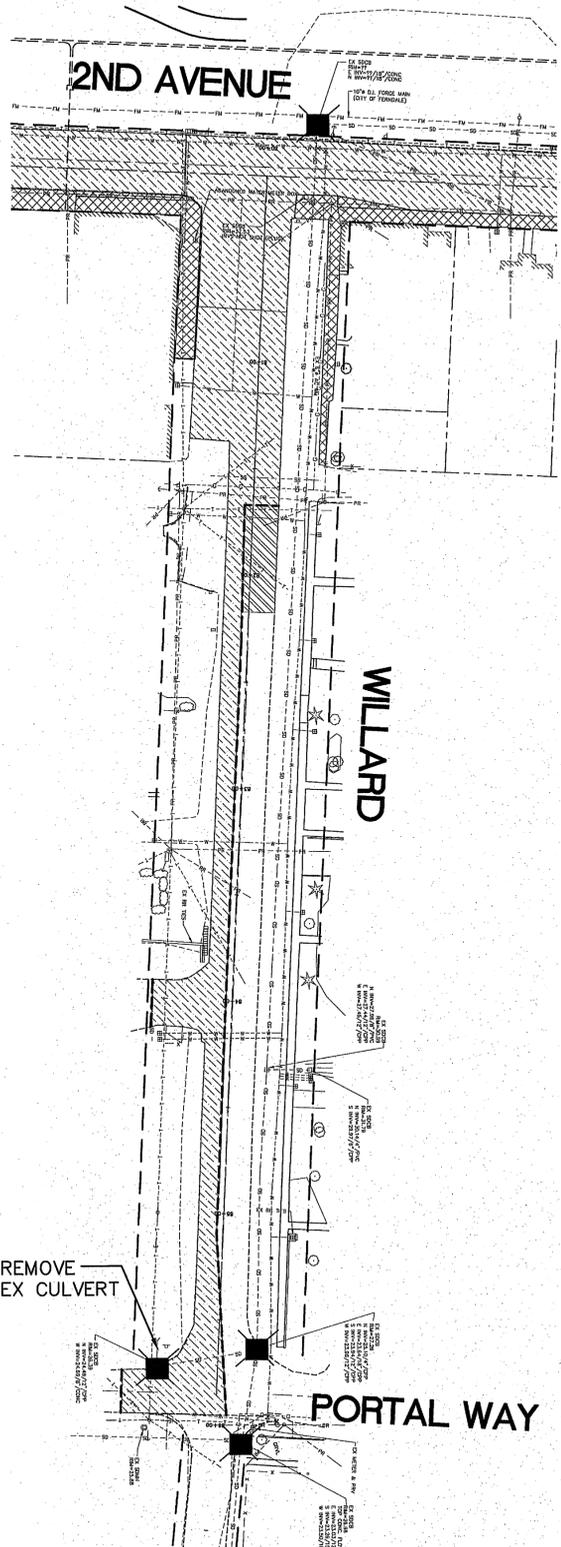
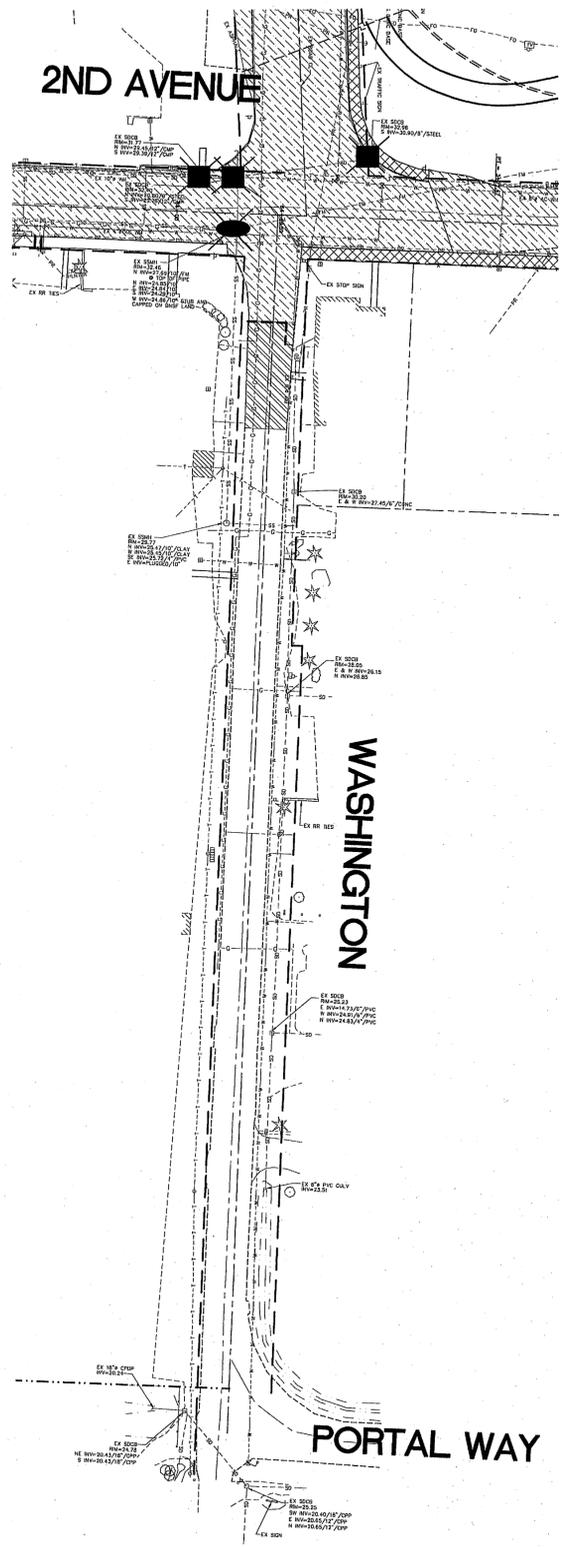
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| NO. | DATE | REVISION | BY |
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CITY OF FERNDALE
2095 MAIN STREET
FERNDALE, WA 98248

2ND AVENUE
STREET IMPROVEMENTS
DEMOLITION PLAN

| | | | |
|------------|--------------------|-------|----------|
| JOB# / DWG | 07038 SP2 | DATE | 7-8-09 |
| SCALE | H: 1" = 40' v: N/A | SHEET | 27 of 72 |



| LEGEND | |
|--------|--------------------------------|
| | = EX CONCRETE PAVEMENT REMOVAL |
| | = EX ASPHALT REMOVAL |
| | = EX SIDEWALK REMOVAL |
| | = PLANING PAVEMENT |
| | = SAWCUT |
| | = REMOVE EX SDCB OR SDMH |
| | = REMOVE EX SSMH |



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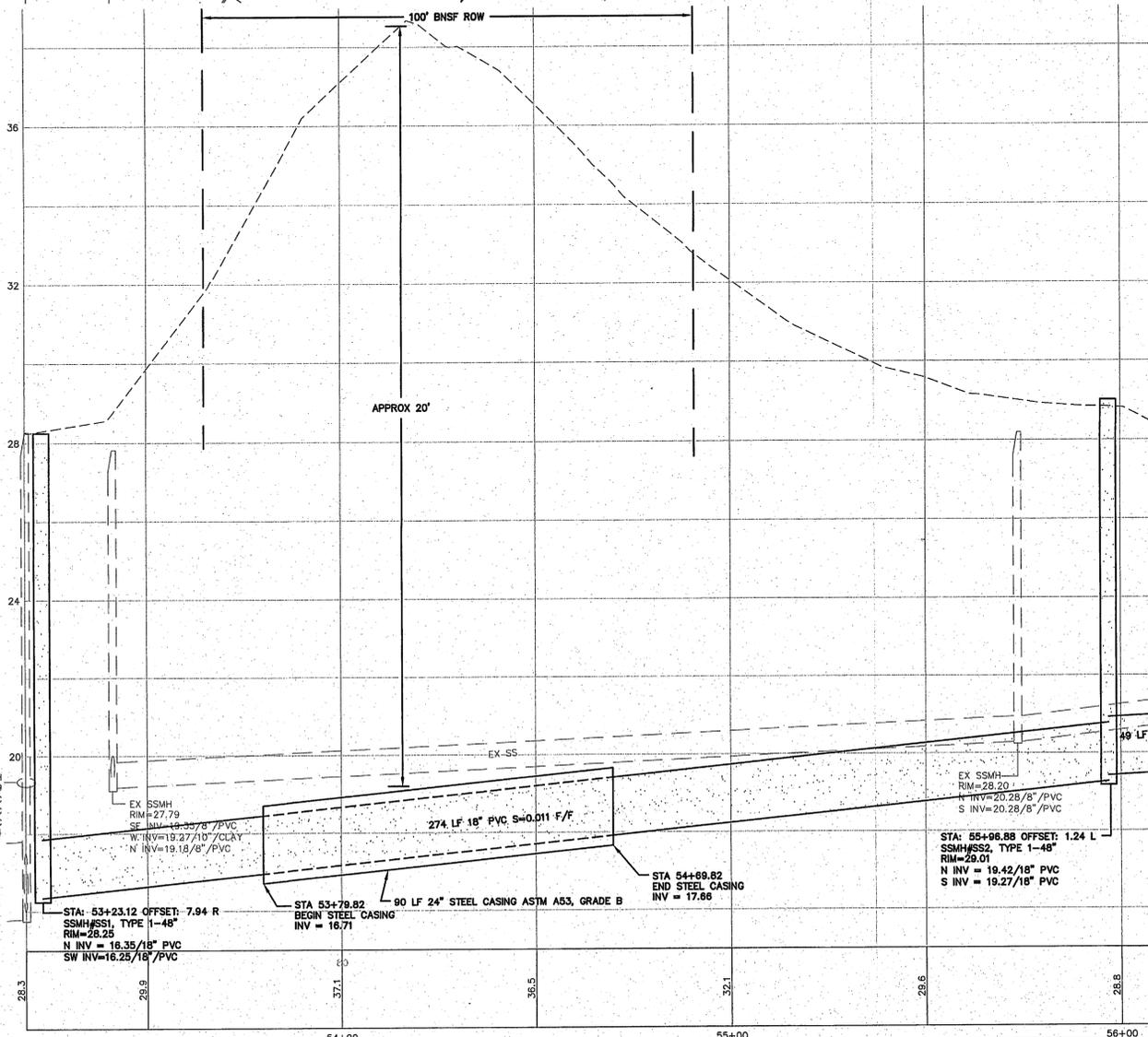
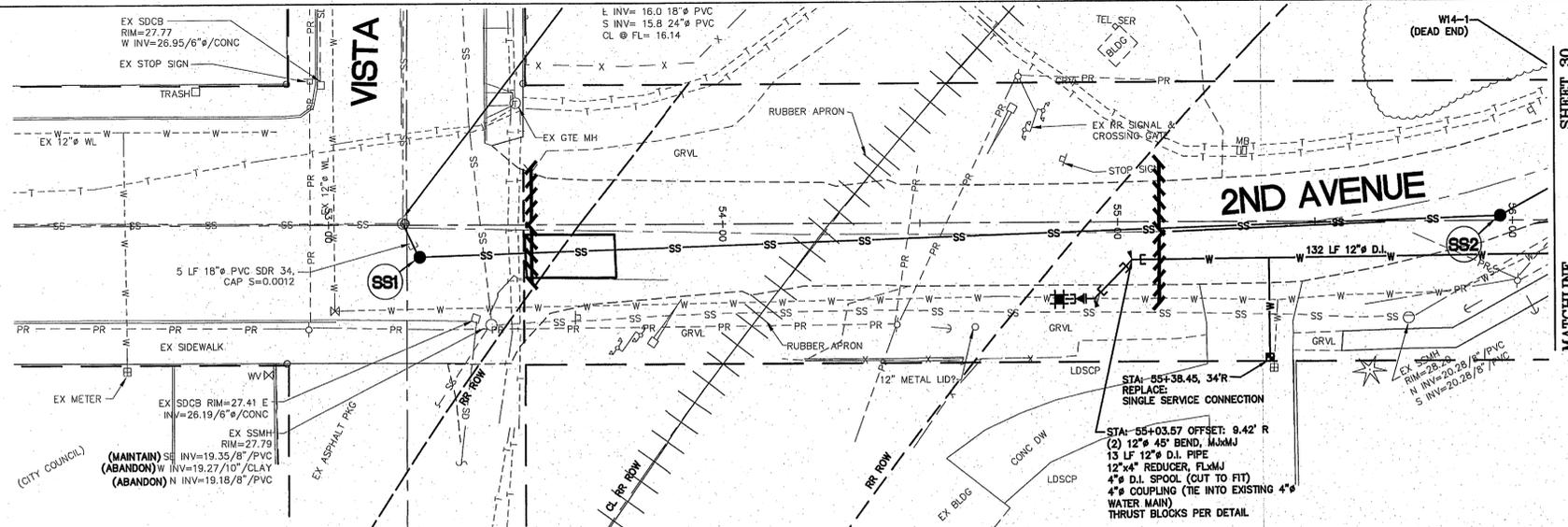
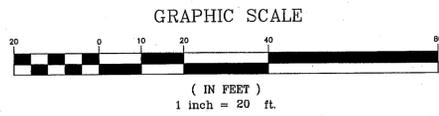
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|-----|------|----------|----|
| | | | |

CITY OF FERDALE
2085 MAIN STREET
FERDALE, WA 98248

2ND AVENUE
STREET IMPROVEMENTS
DEMOLITION PLAN

| | | |
|---------------------|--------|-------------------|
| JOB# / DWG 07038 | SP2 | DATE 7-8-09 |
| SCALE 1" = 40' | v. N/A | SHEET 28 of 72 |



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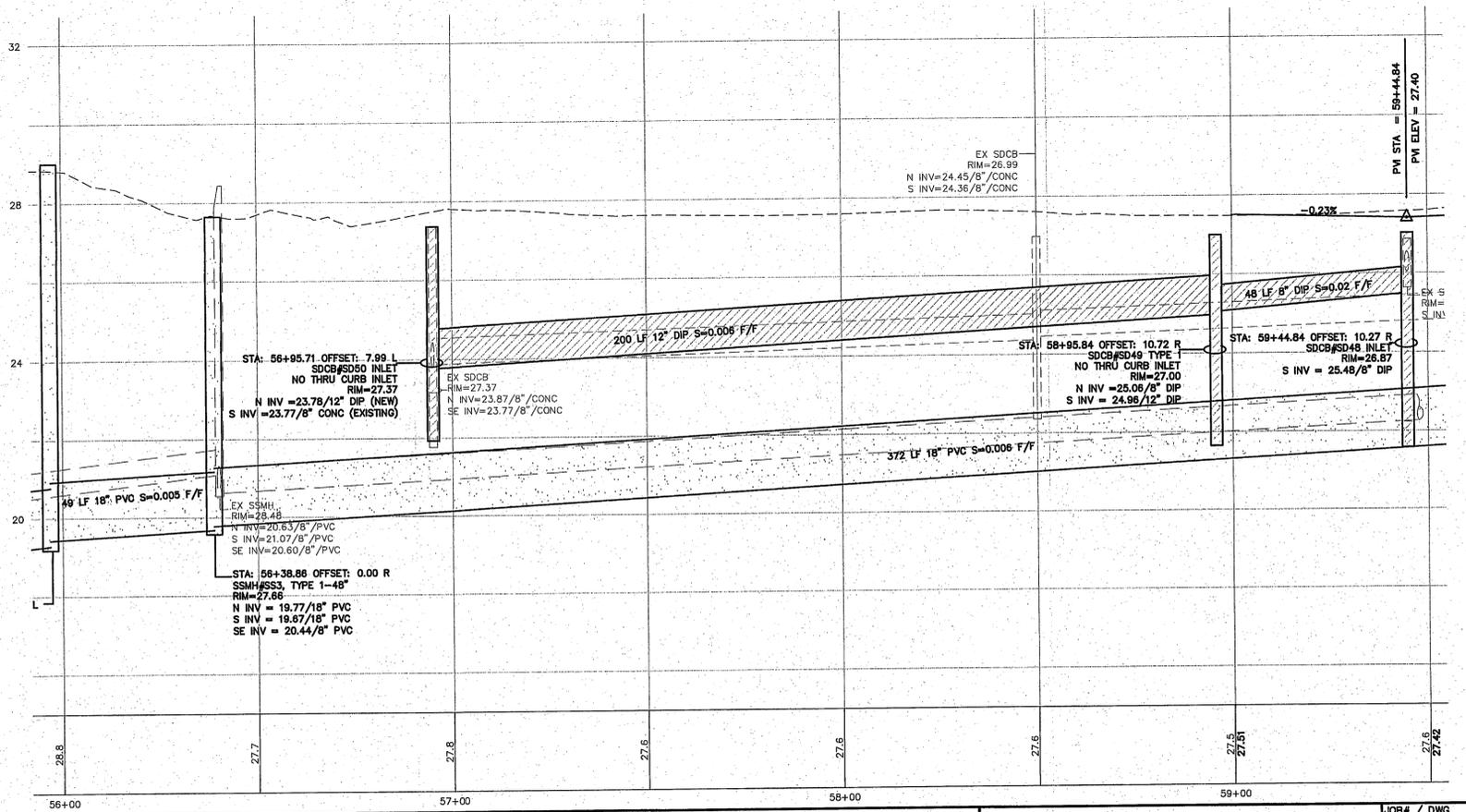
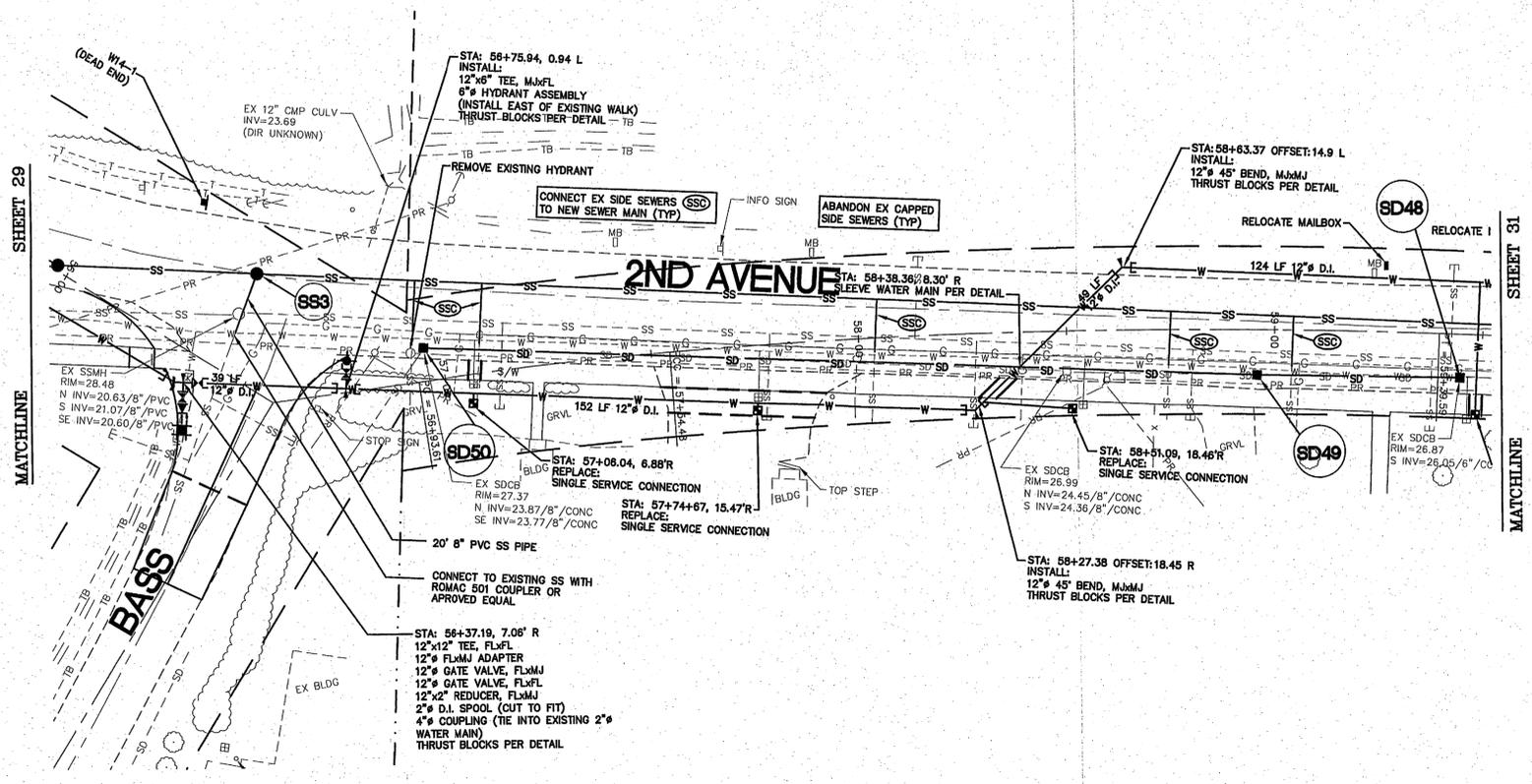
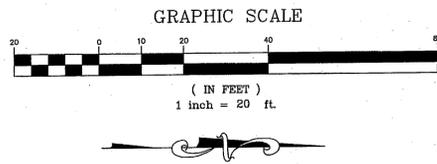
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CITY OF FERNDALE
2095 MAIN STREET
FERNDALE, WA 98248

2ND AVENUE
STREET IMPROVEMENTS
2ND AVE. - PLAN AND PROFILE

| | |
|------------------|----------|
| JOB# / DWG | DATE |
| 07038 SP2 | 7-8-09 |
| SCALE | SHEET |
| H:1"=20' V:1"=2' | 29 of 72 |



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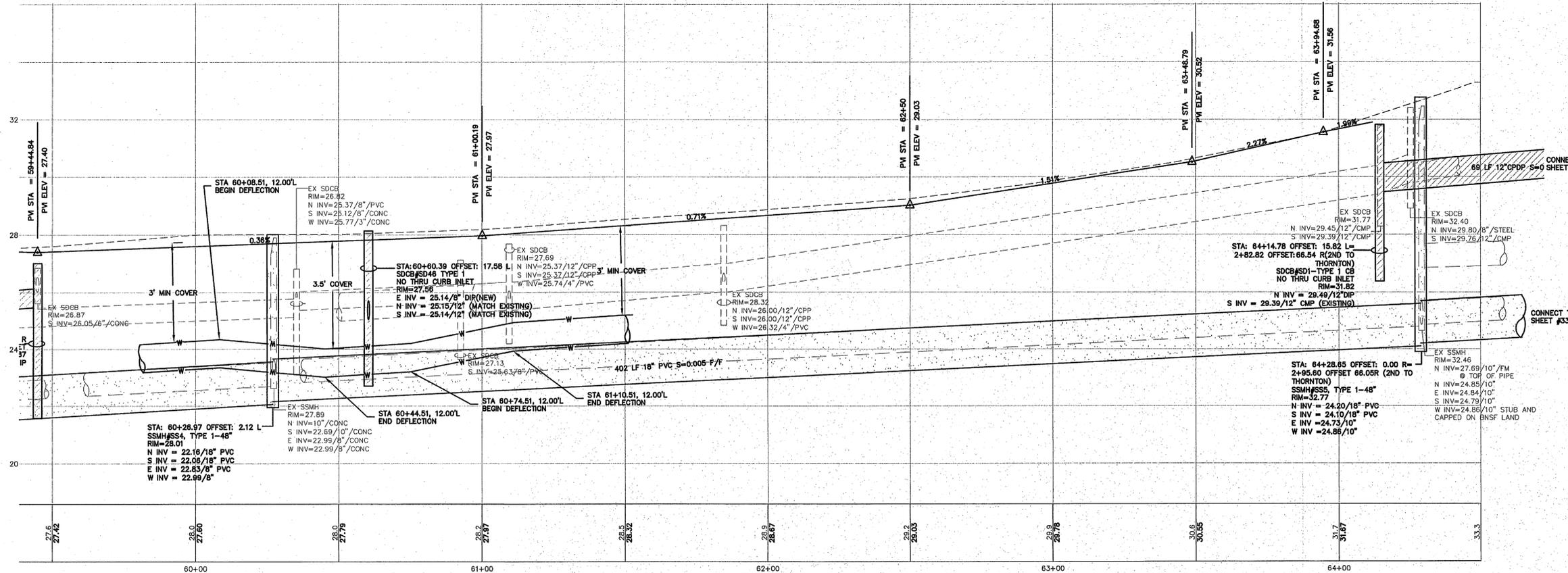
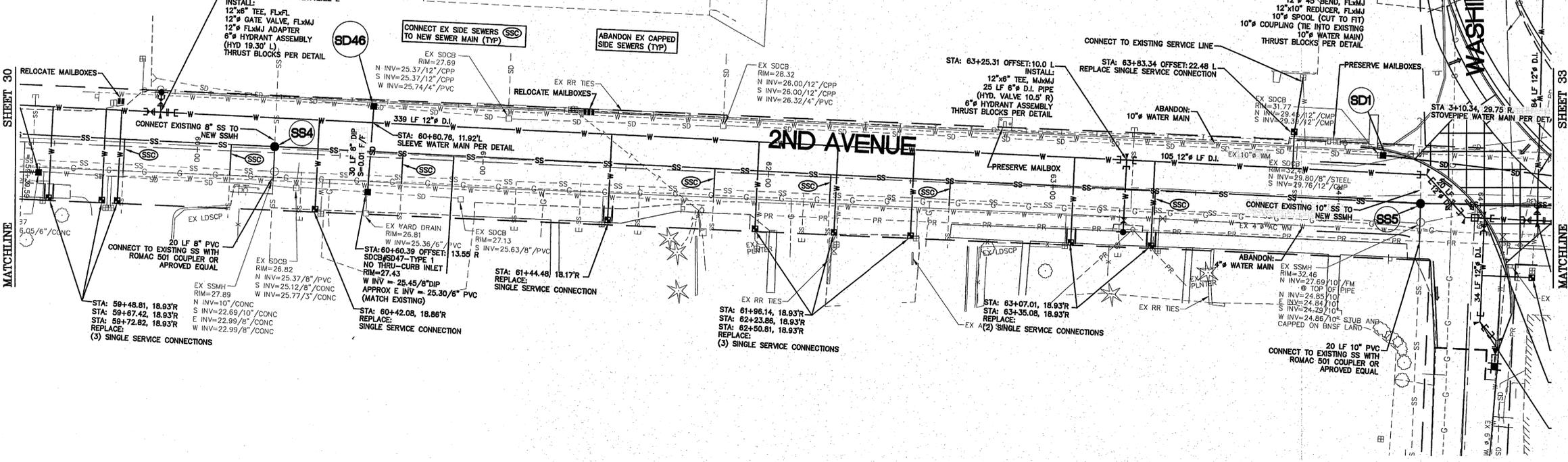
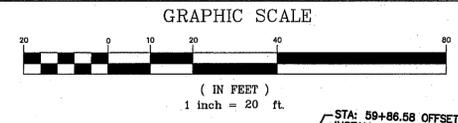
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| NO. | DATE | REVISION | BY |
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| | | | |

CITY OF FERDALE
 2095 MAIN STREET
 FERDALE, WA 98248

2ND AVENUE
 STREET IMPROVEMENTS
 2ND AVE. - PLAN AND PROFILE

JOB# / DWG 07038 SP2
 SCALE H:1"=20' V:1"=2'
 DATE 7-8-09
 SHEET 30 of 72



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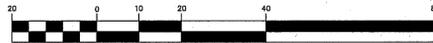
| NO. | DATE | REVISION | BY |
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2095 MAIN STREET
FERDALE, WA 98248

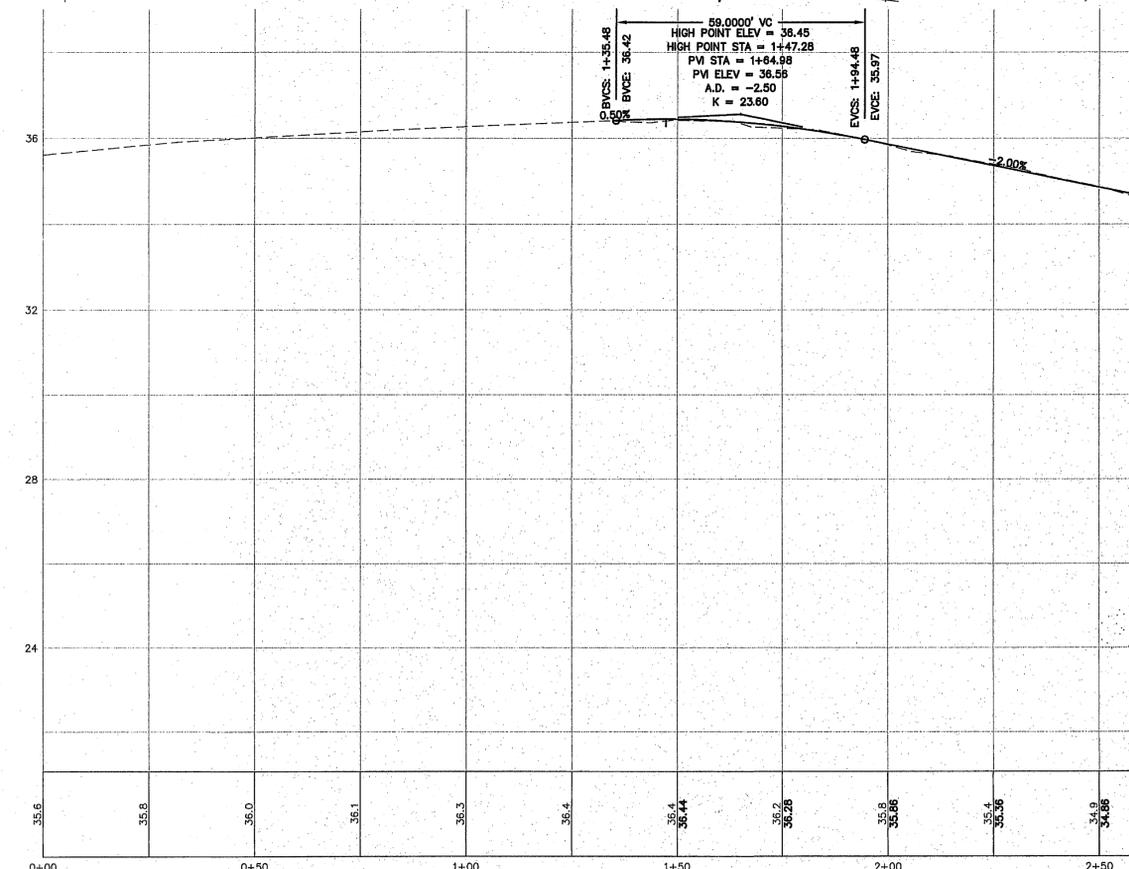
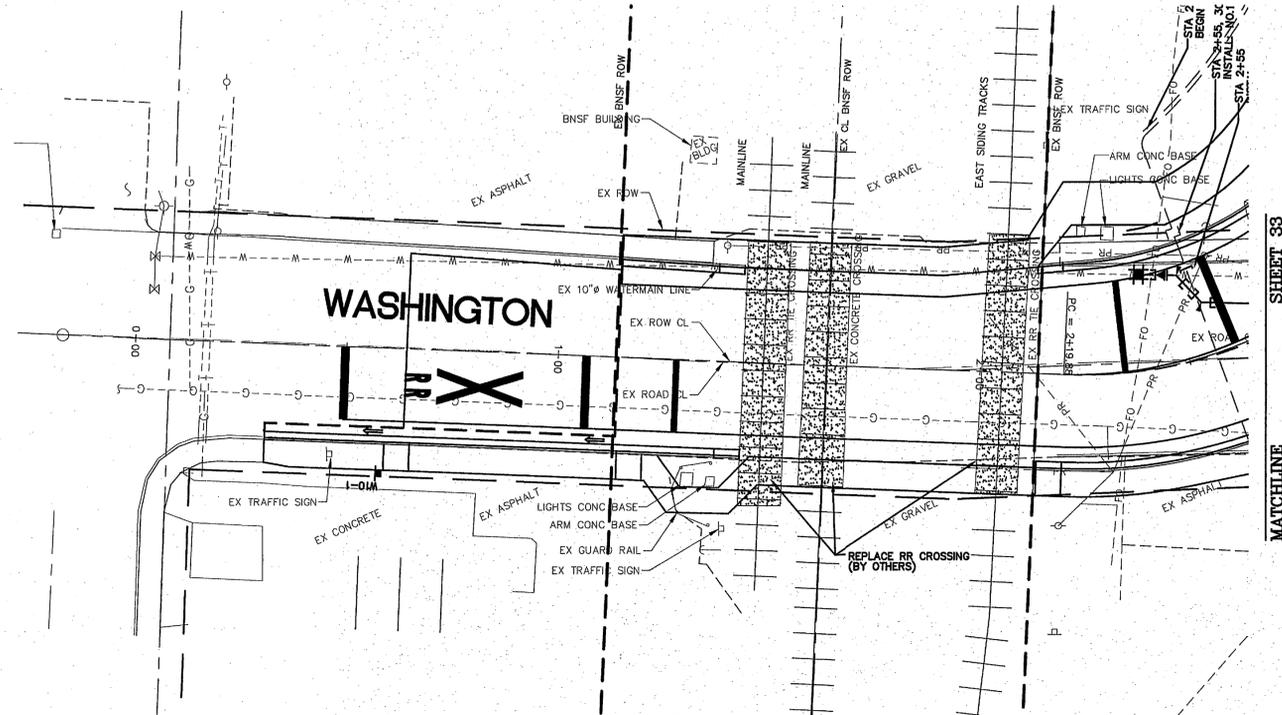
2ND AVENUE
STREET IMPROVEMENTS
2ND AVE - PLAN AND PROFILE

| | | | | |
|------------|------------------|-----|-------|----------|
| JOB# / DWG | 07038 | SP2 | DATE | 7-8-09 |
| SCALE | h:1"=20' v:1"=2' | | SHEET | 31 of 72 |

GRAPHIC SCALE



(IN FEET)
1 inch = 20 ft.



MATCHLINE SHEET 33



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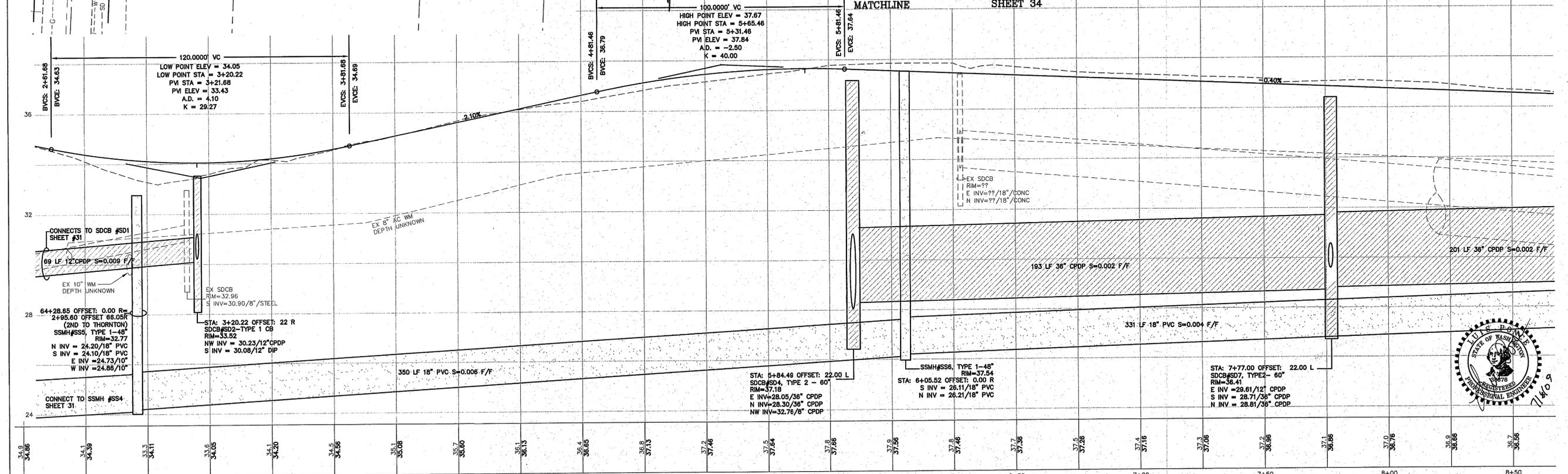
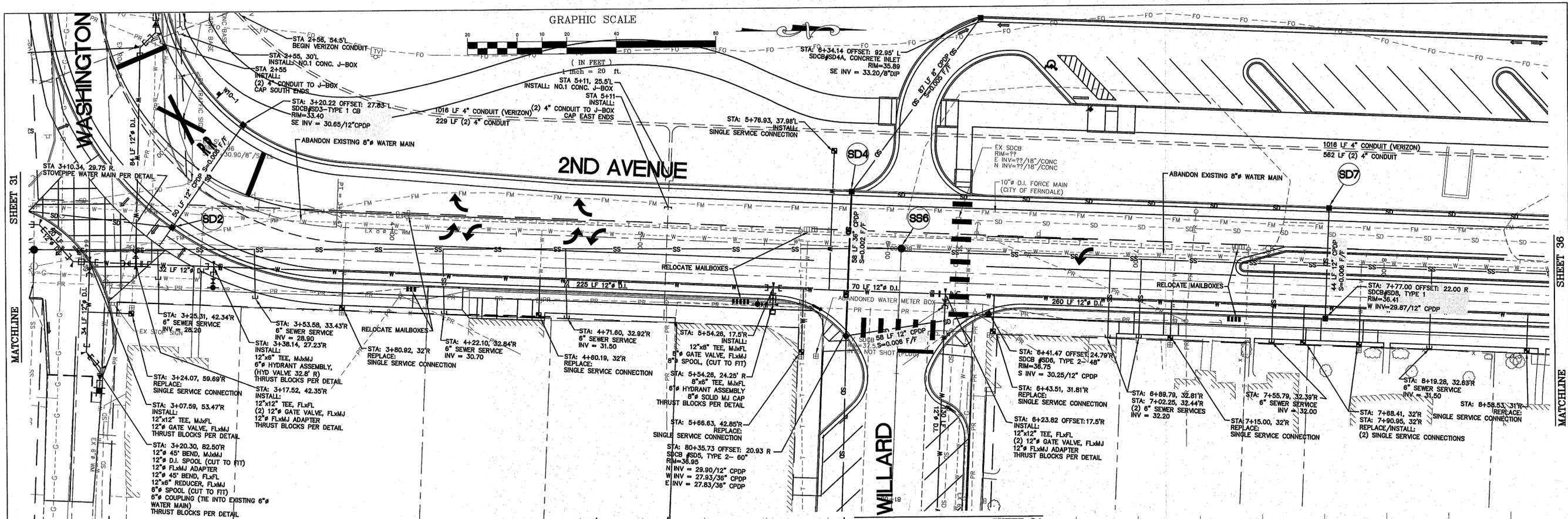
CITY OF FERDALE
2095 MAIN STREET
FERDALE, WA 98248

2ND AVENUE
STREET IMPROVEMENTS
2ND AVE. - PLAN AND PROFILE

JOB# / DWG
07038 SP2
SCALE
H:1"=20' v:1"=2'

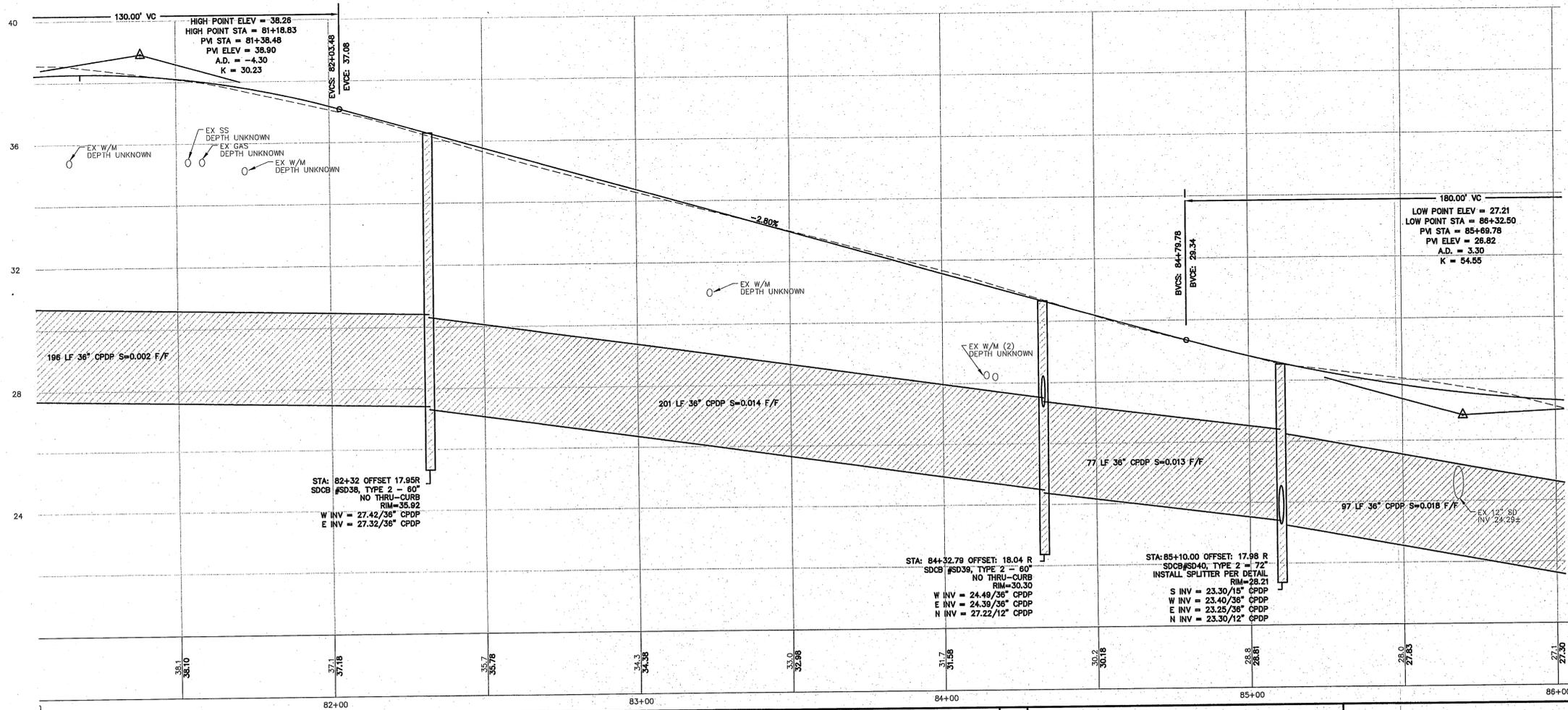
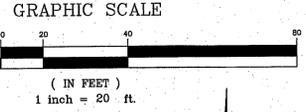
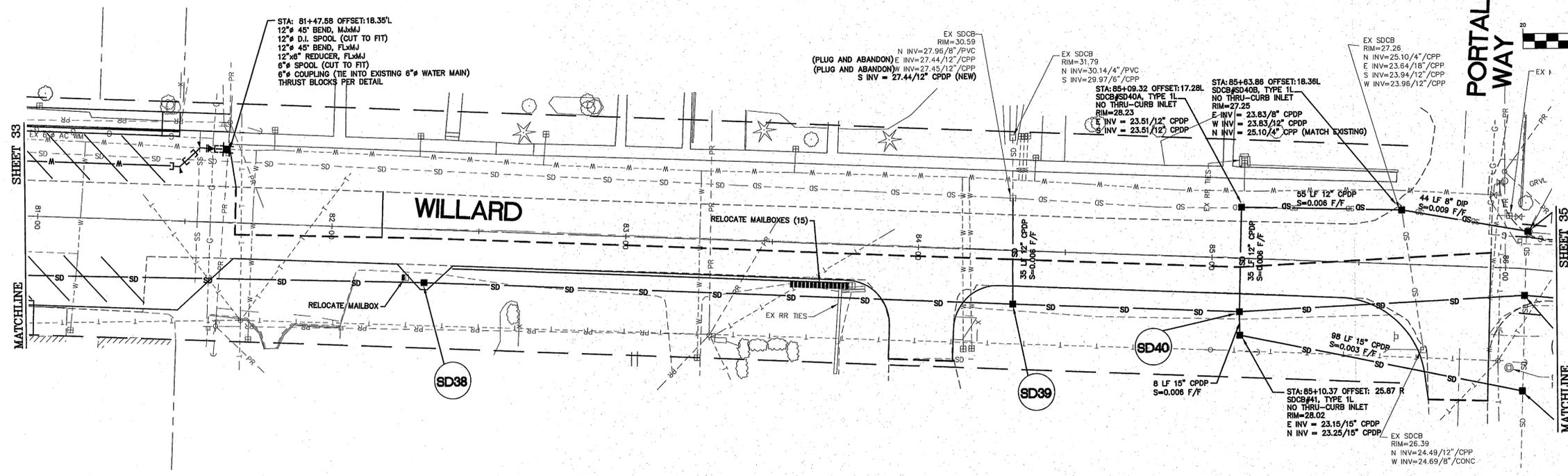
DATE
7-8-09
SHEET
32 of 72

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| DESIGNED BY LP | REICHHARDT & EBE ENGINEERING, INC. CONSULTING ENGINEERS PO Box 978 423 Front St., Ste 201 Lynden, Washington 98264 Ph (360) 354-3687 Fax (360) 354-0407 | NO. | DATE | REVISION | BY | CITY OF FERDALE 2095 MAIN STREET FERDALE, WA 98248 | 2ND AVENUE STREET IMPROVEMENTS 2ND AVE. - PLAN AND PROFILE | JOB# / DWG 07038 SP2 | DATE 7-8-09 |
| DRAWN BY MLK/LMC | | SCALE H:1"=20' V:1"=2' | SHEET 33 of 72 | | | | | | |
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| NO. | DATE | REVISION | BY |
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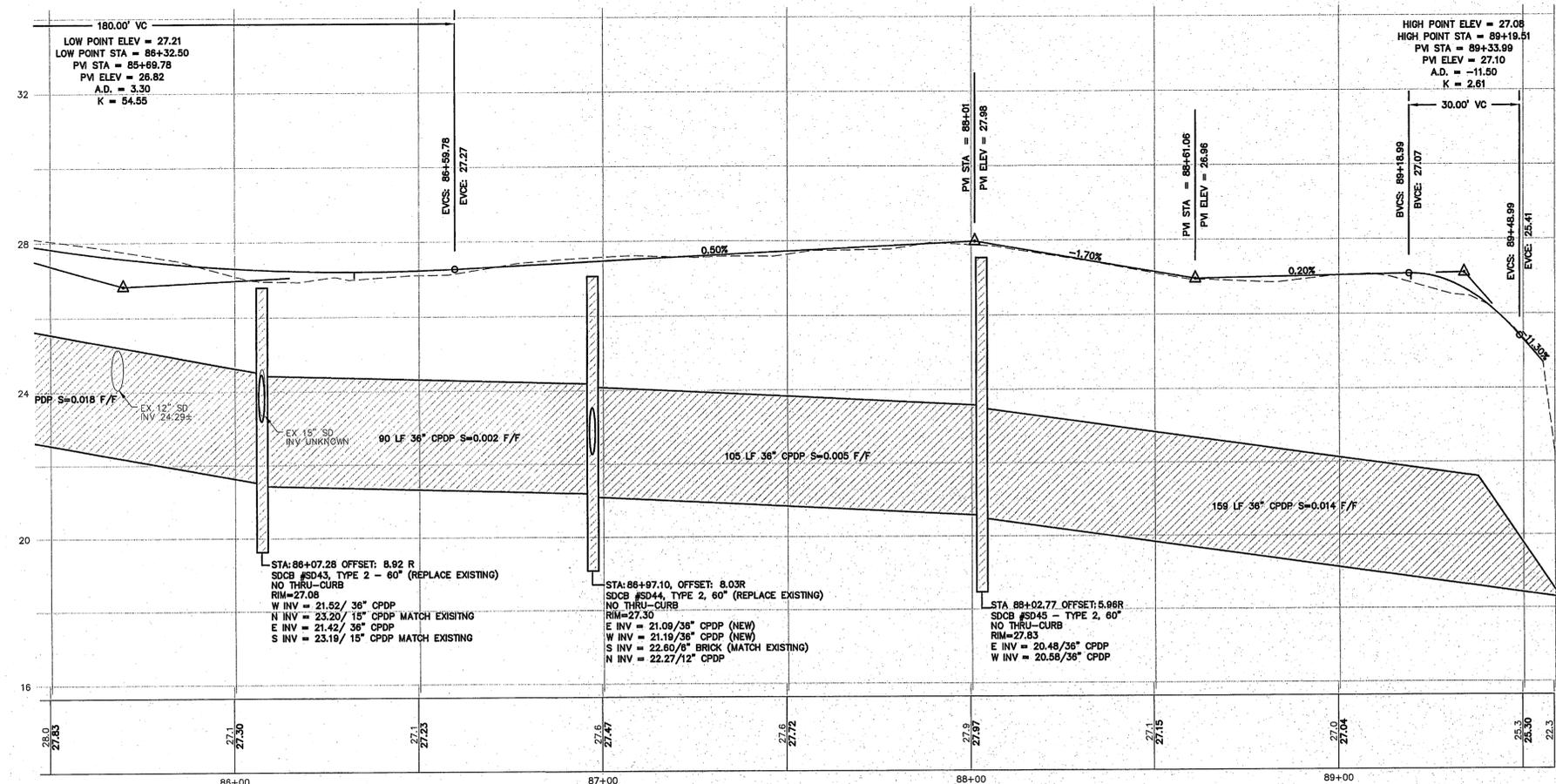
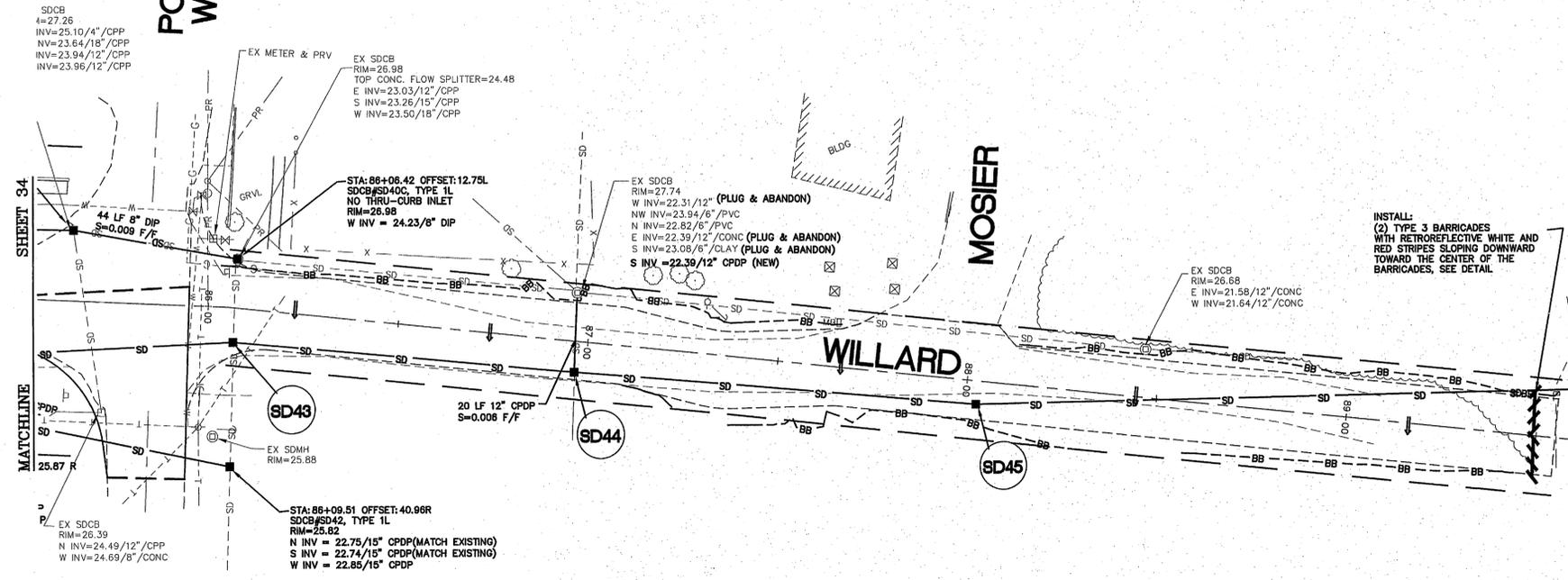
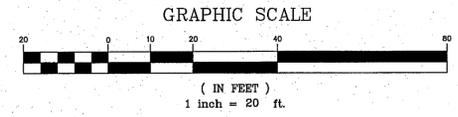
CITY OF FERDALE
2095 MAIN STREET
FERDALE, WA 98248

2ND AVENUE
STREET IMPROVEMENTS
WILLARD AVE. - PLAN AND PROFILE

| | |
|------------------|----------|
| JOB# / DWG | DATE |
| 07038 SP2 | 7-8-09 |
| SCALE | SHEET |
| H:1"=20' V:1"=2' | 34 of 72 |

11/8/09

PORTAL WAY



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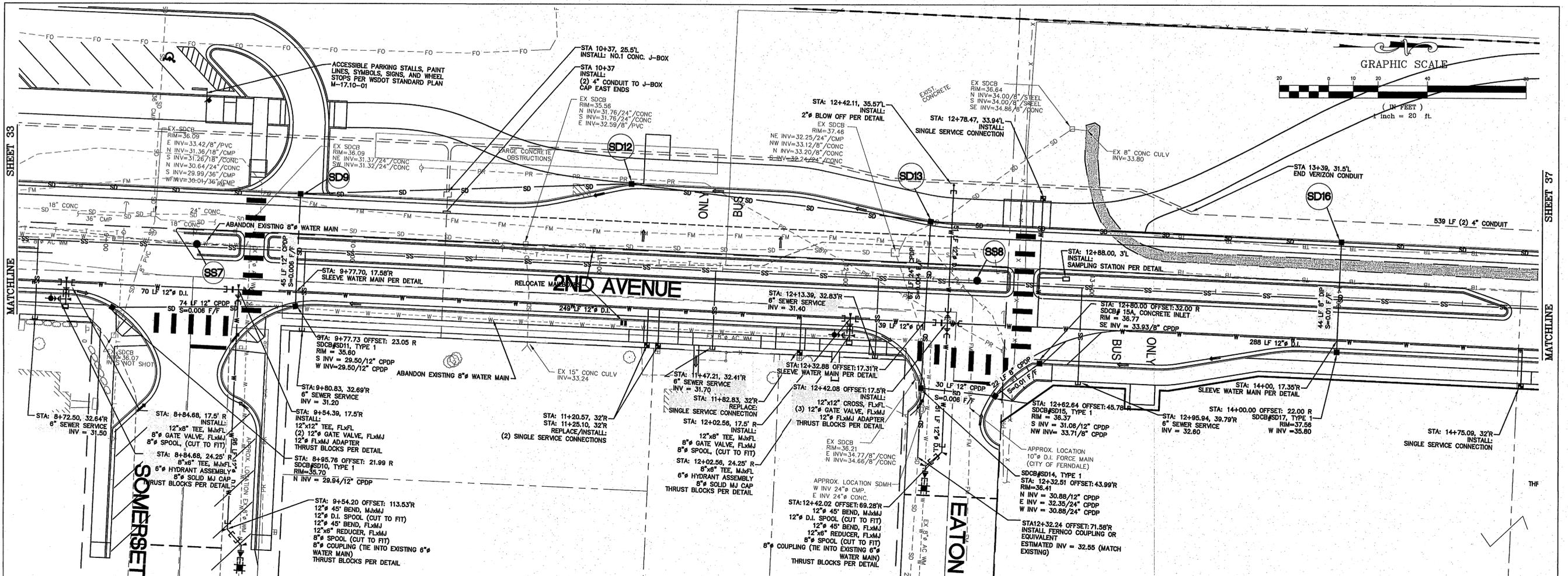
| NO. | DATE | REVISION | BY |
|-----|------|----------|----|
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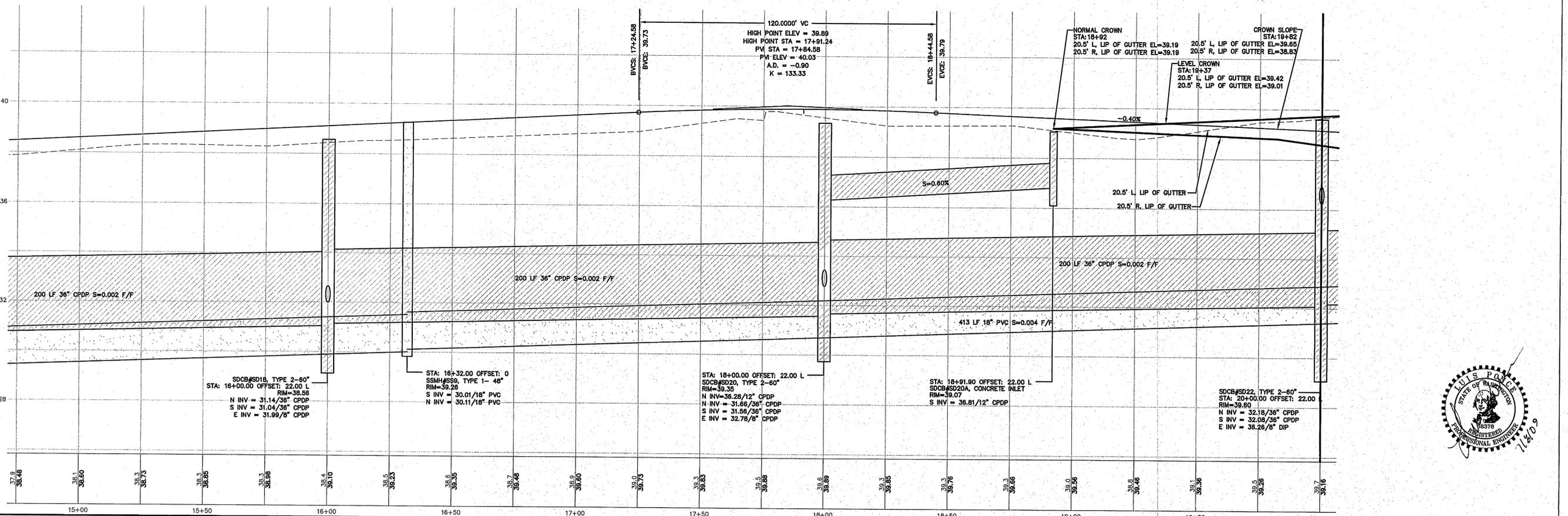
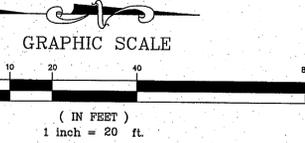
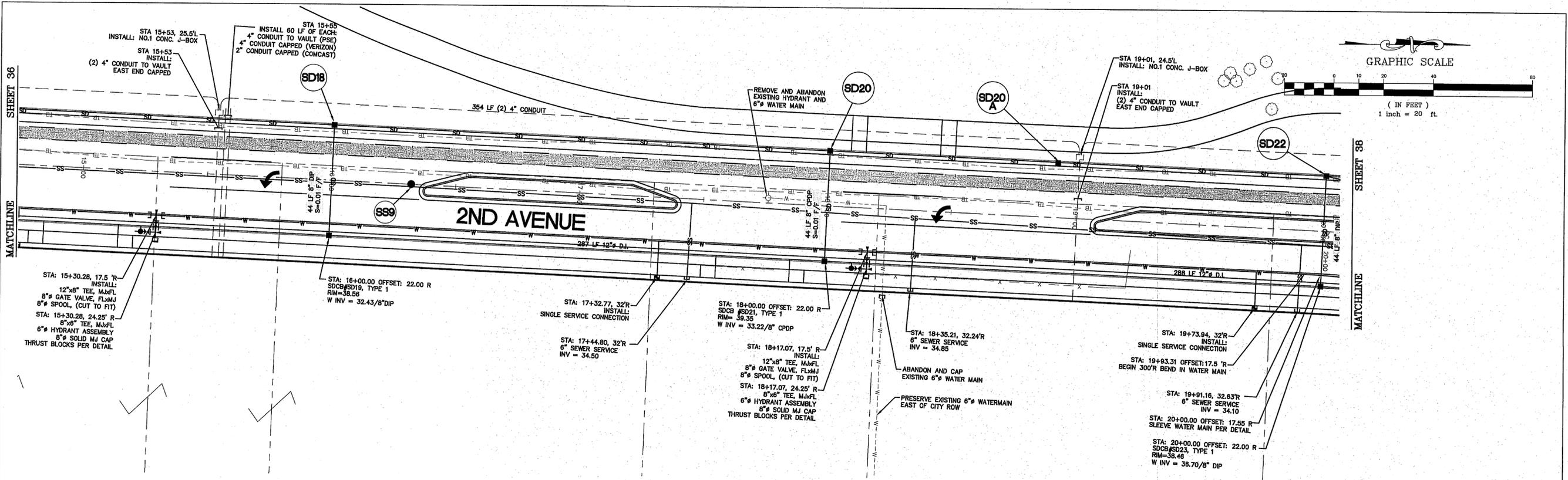
CITY OF FERDALE
2095 MAIN STREET
FERDALE, WA 98248

2ND AVENUE
STREET IMPROVEMENTS
WILLARD AVE - PLAN AND PROFILE

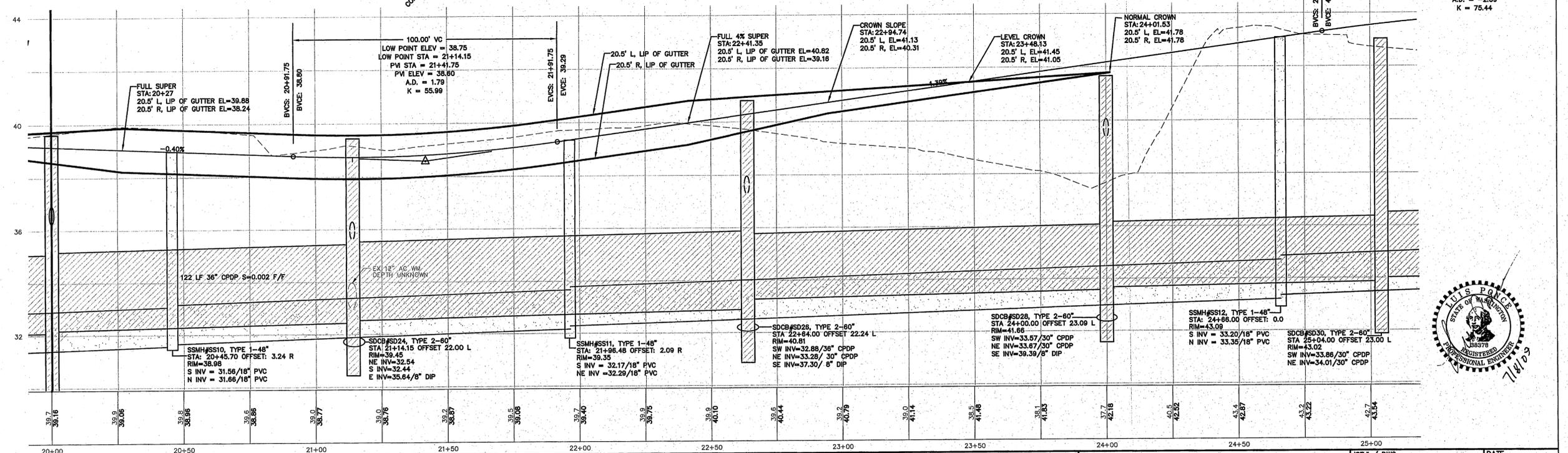
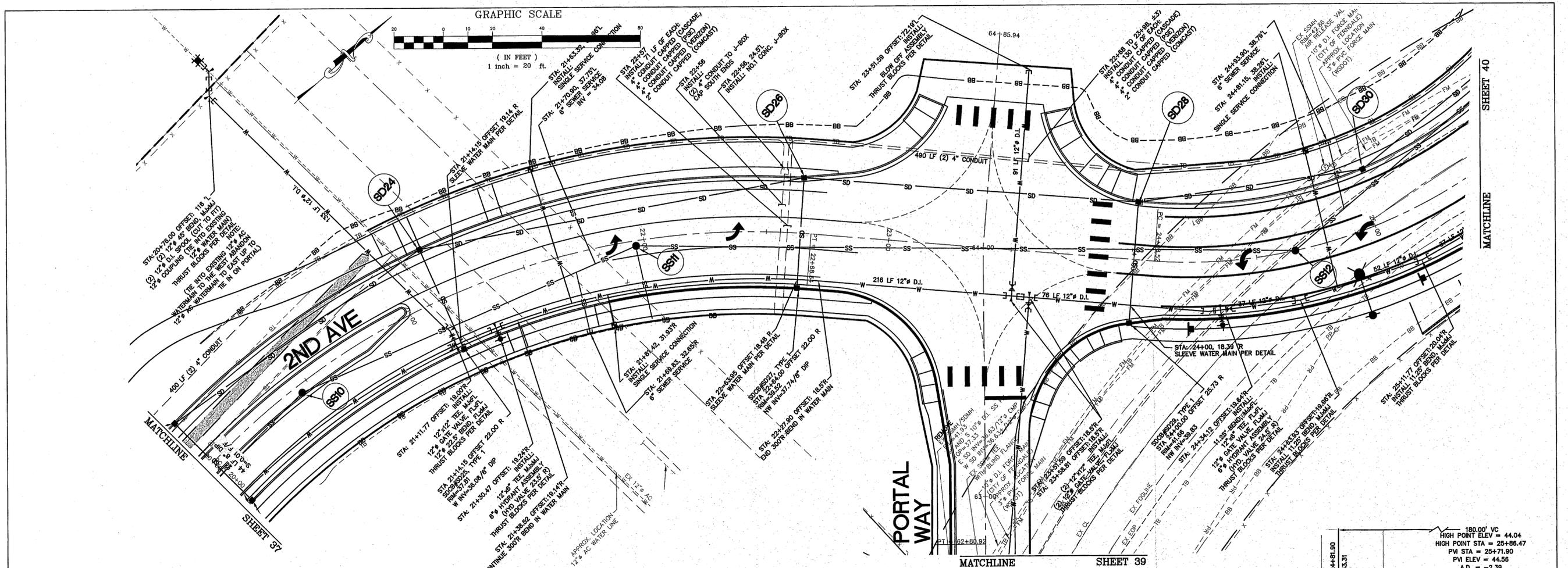
JOB# / DWG
07038 SP2
SCALE
H:1"=20' V:1"=2'

DATE
7-8-09
SHEET
35 of 72





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|---------------------|---|--|------|--|----|---------------------------|-------------------|
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| DRAWN BY MLK/LMC | | NO. | DATE | REVISION | BY | SCALE H:1"=20' V:1"=2' | SHEET 37 of 72 |
| CHECKED BY | | | | | | | |



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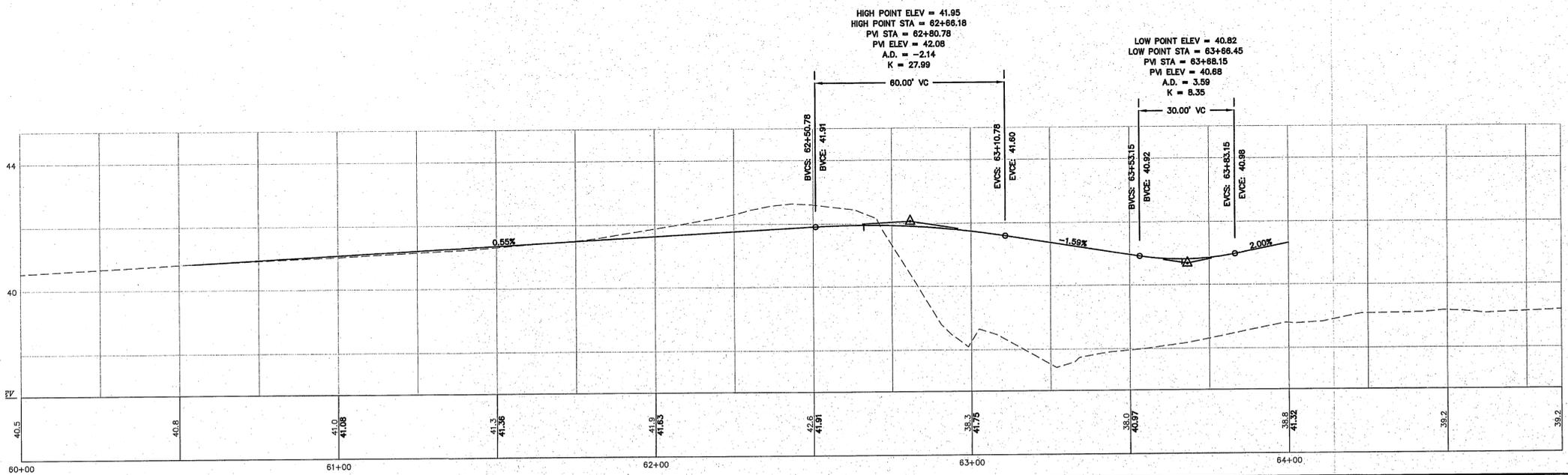
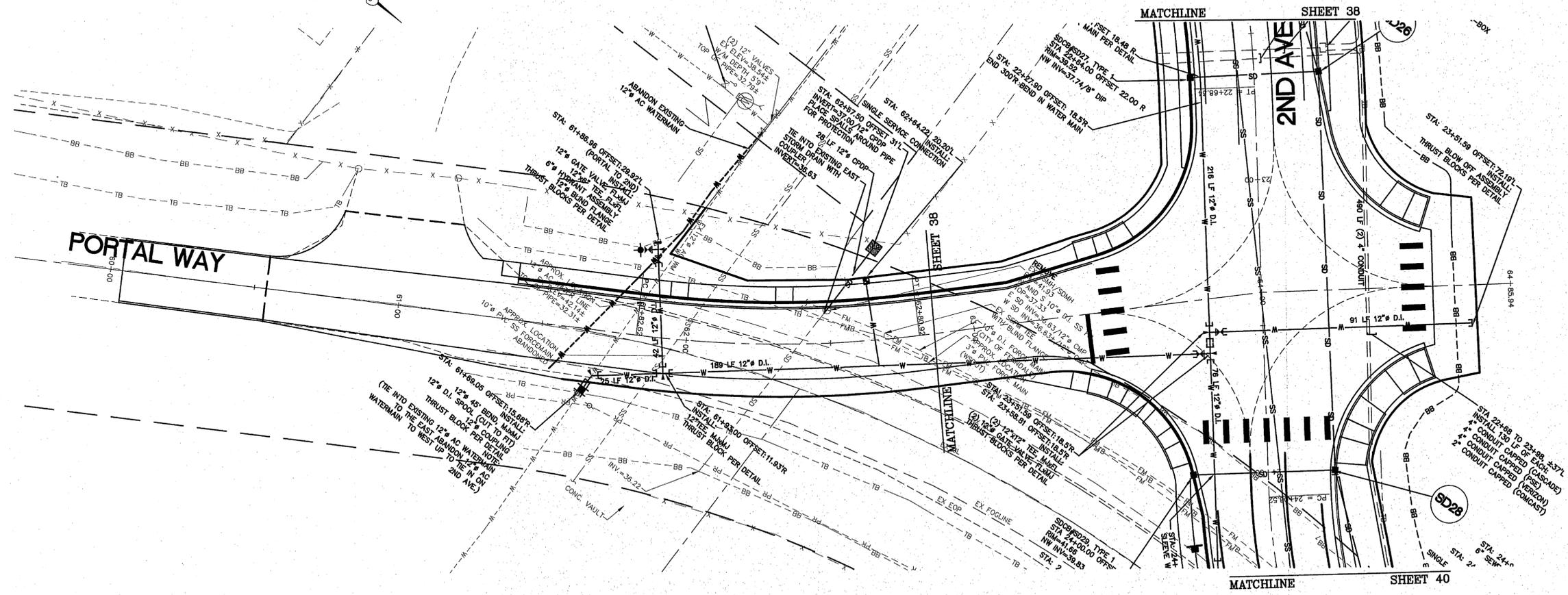
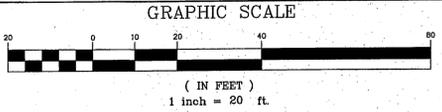
| NO. | DATE | REVISION | BY |
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CITY OF FERDALE
2005 MAIN STREET
FERDALE, WA 98248

2ND AVENUE
STREET IMPROVEMENTS
2ND AVE - PLAN AND PROFILE

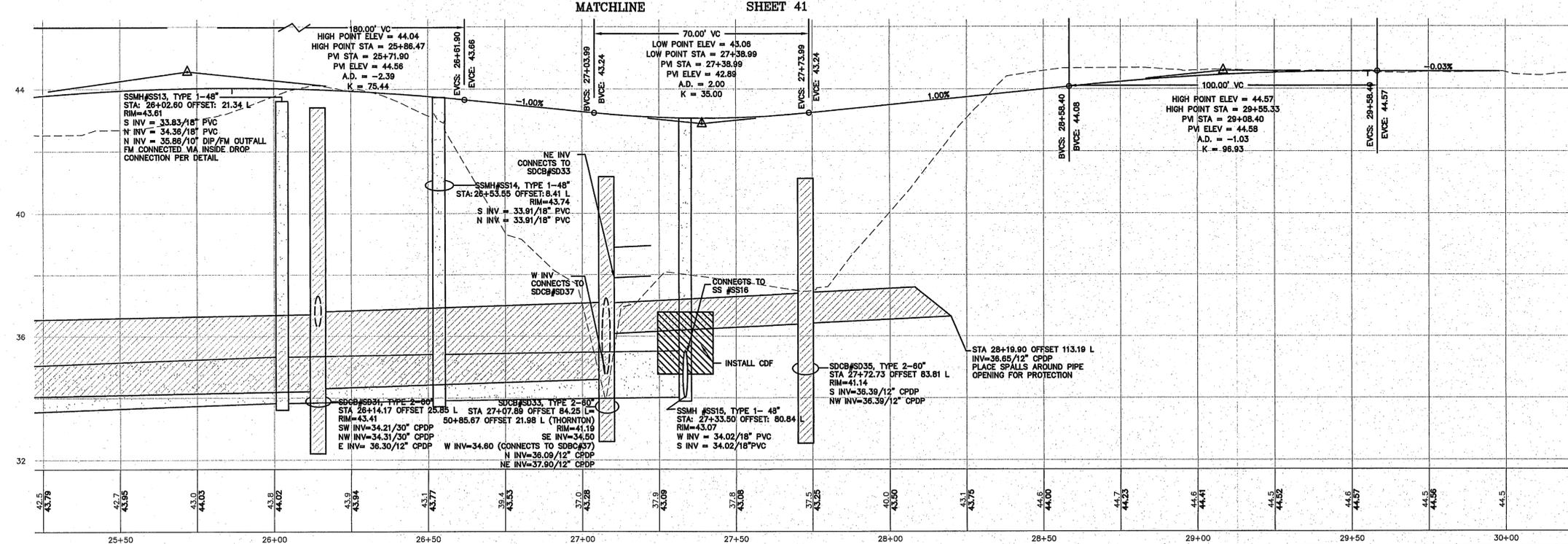
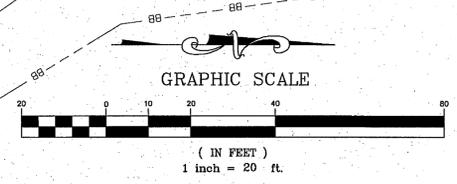
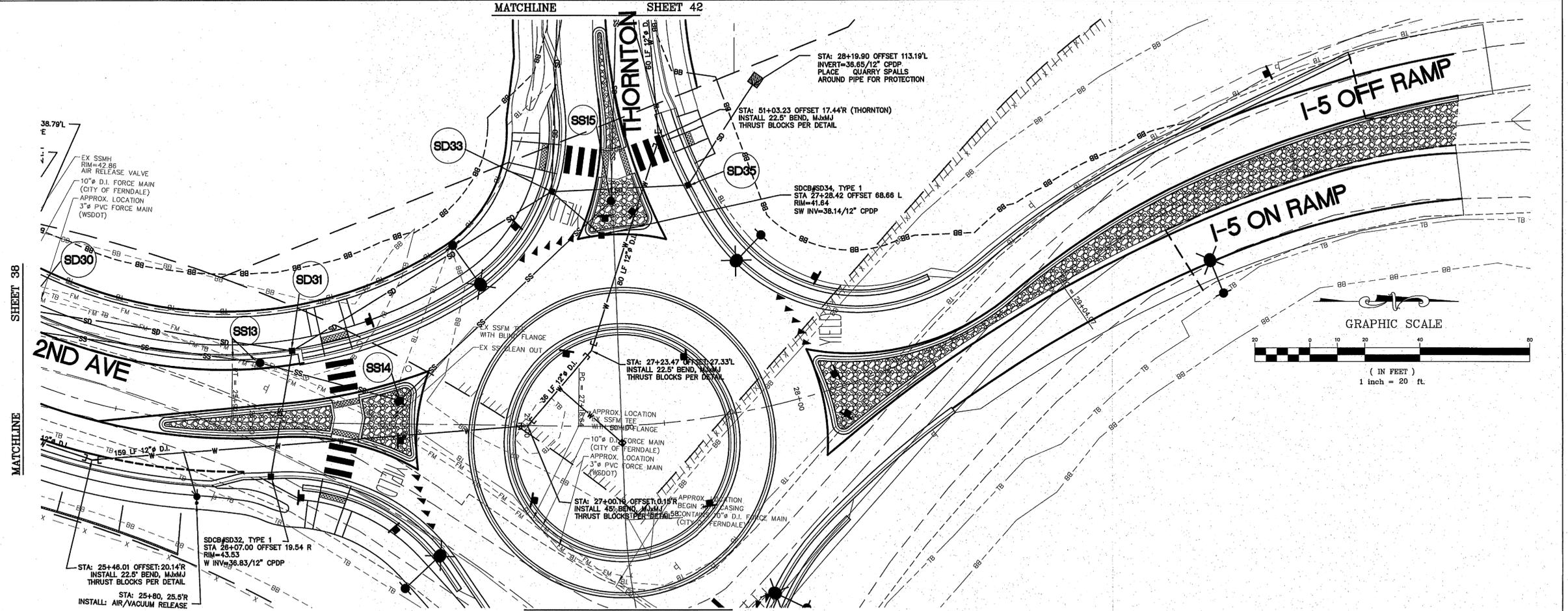
JOB# / DWG
07038 SP2
SCALE
H:1"=20' V:1"=2'

DATE
7-8-09
SHEET
38 of 72



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|---------------------|---|-----|------|----------|----|--|---|---------------------------|-------------------|
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| DRAWN BY MLK/LMC | | | | | | | | SCALE H:1"=20' V:1"=2' | SHEET 39 of 72 |
| CHECKED BY | | | | | | | | | |

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|-----|------|----------|----|
| | | | |

CITY OF FERDALE
 2095 MAIN STREET
 FERDALE, WA 98248

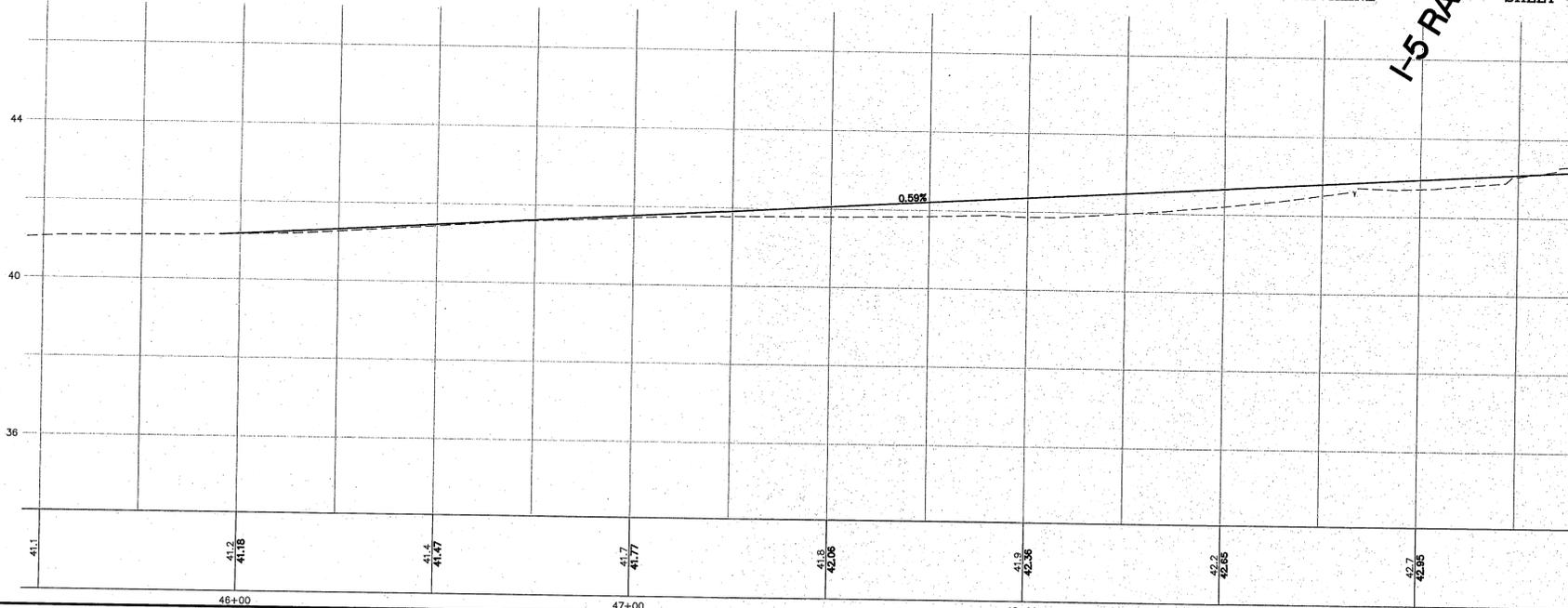
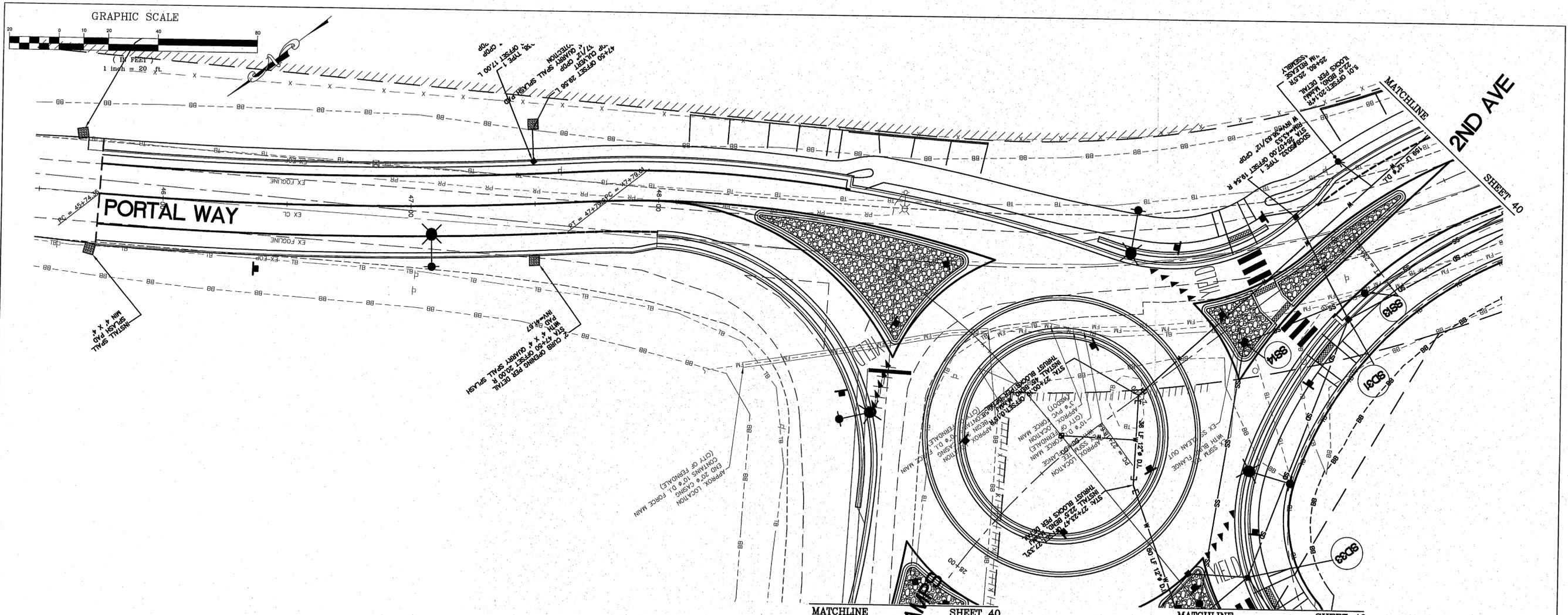
2ND AVENUE
STREET IMPROVEMENTS
 THORNTON RD. - PLAN AND PROFILE

JOB# / DWG
07038 SP2

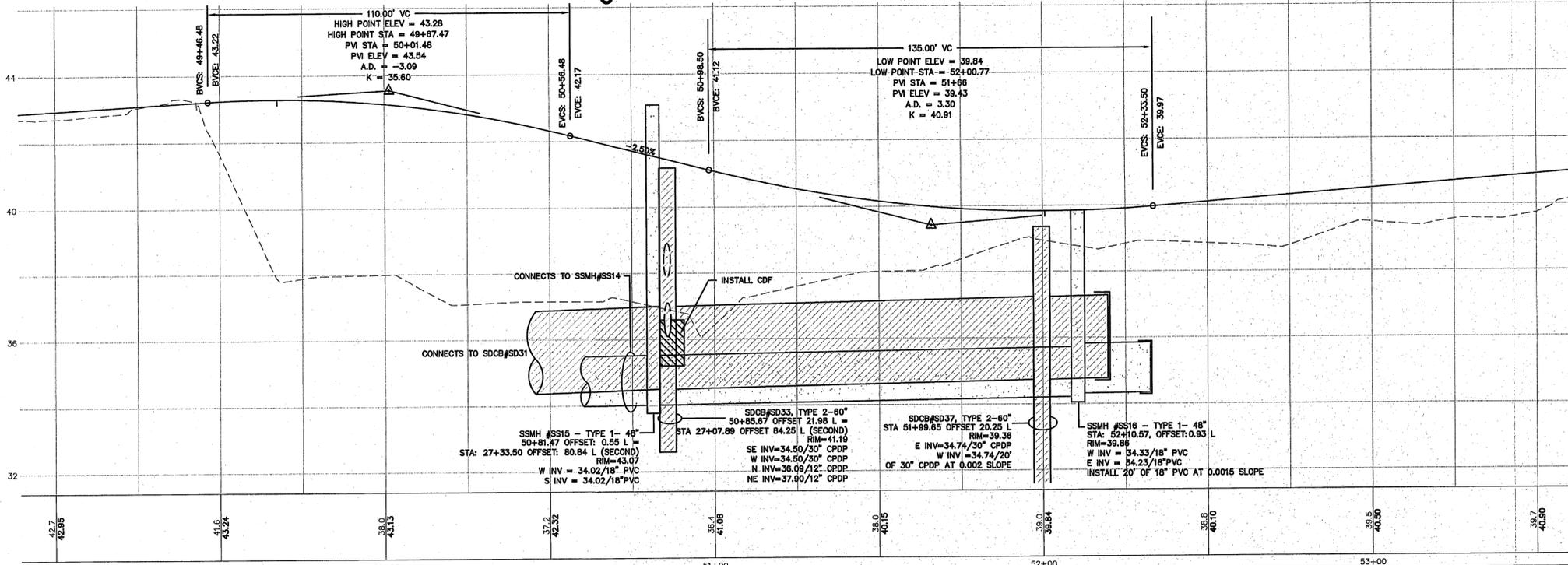
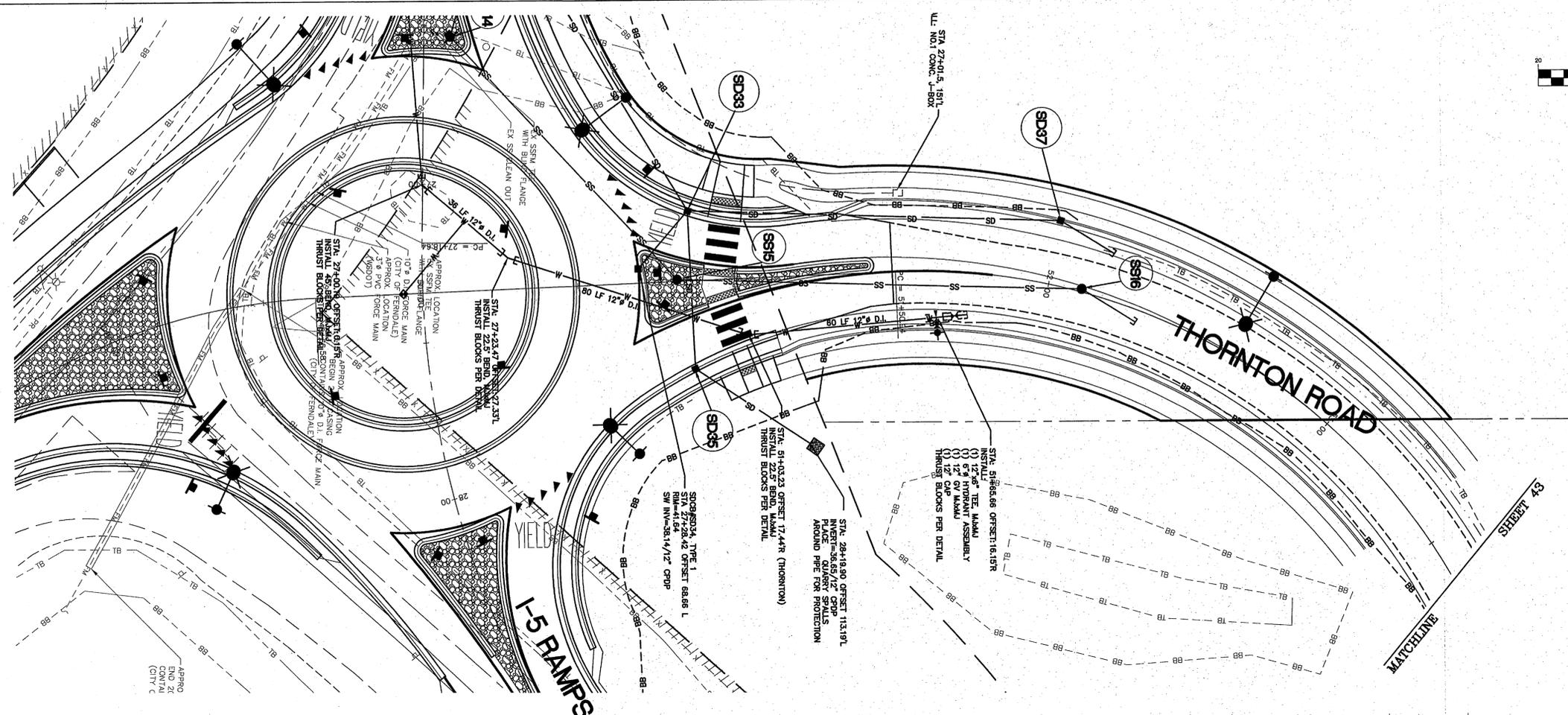
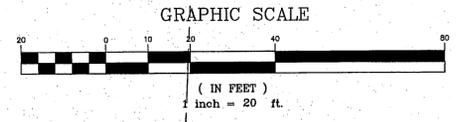
SCALE
H:1"=20' v:NA

DATE
7-8-09

SHEET
40 of 72



| | | | | | | | |
|---------------------|---|--|------|--|----|--------------------------|-------------------|
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| DRAWN BY MLK/LMC | | NO. | DATE | REVISION | BY | SCALE H: 1"=20' v: NA | SHEET 41 of 72 |
| CHECKED BY | | | | | | | |



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 Fax (360) 354-0407

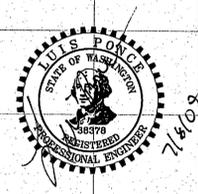
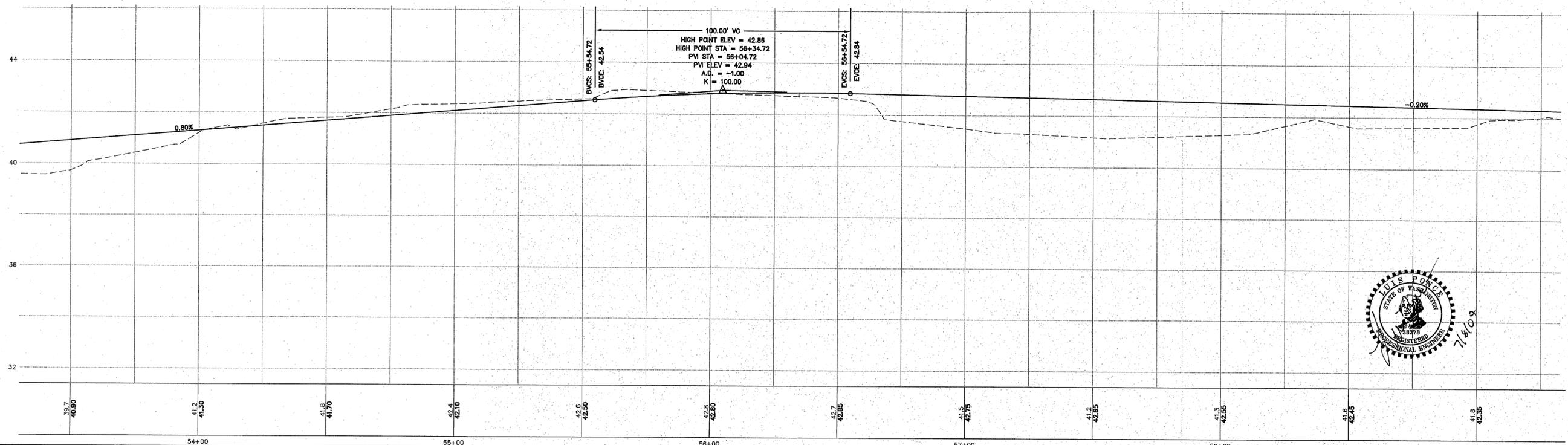
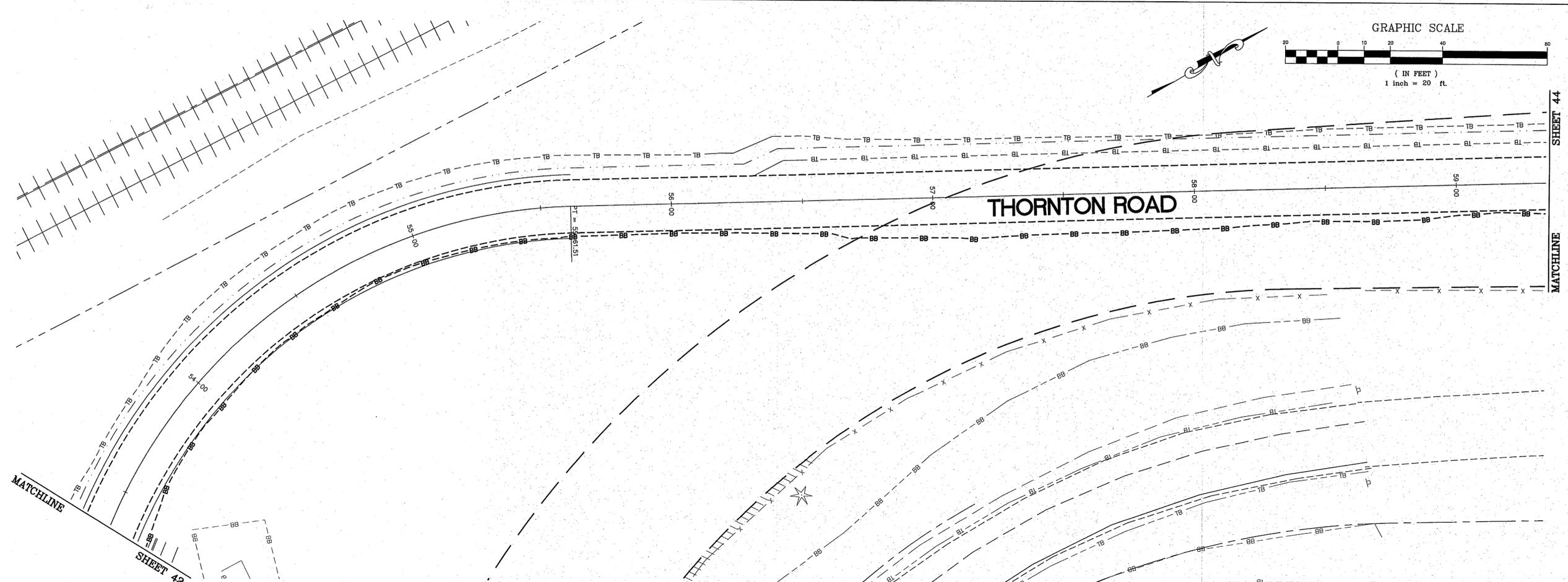
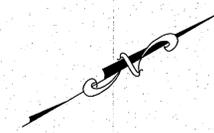
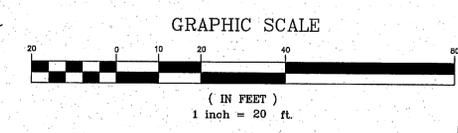
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CITY OF FERDALE
 2095 MAIN STREET
 FERDALE, WA 98248

2ND AVENUE
STREET IMPROVEMENTS
 THORNTON RD. - PLAN AND PROFILE

| | | | |
|------------|--------------------|-------|----------|
| JOB# / DWG | 07038 SP2 | DATE | 7-8-09 |
| SCALE | H: 1"=20' V: 1"=2' | SHEET | 42 of 72 |

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 MLK/LMC
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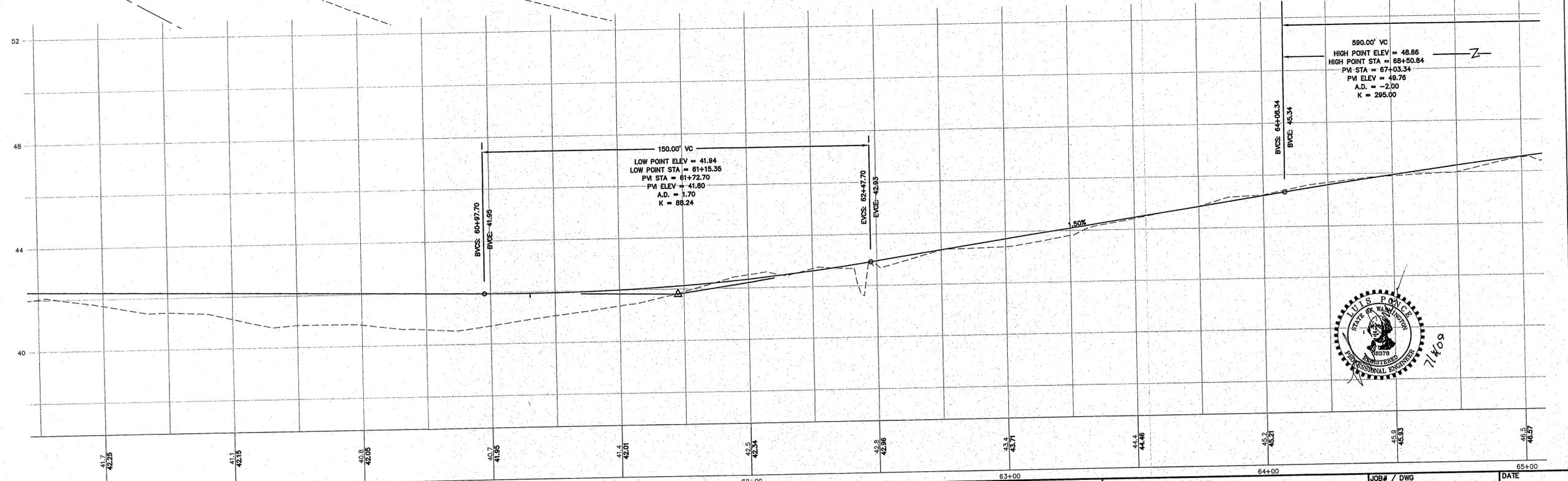
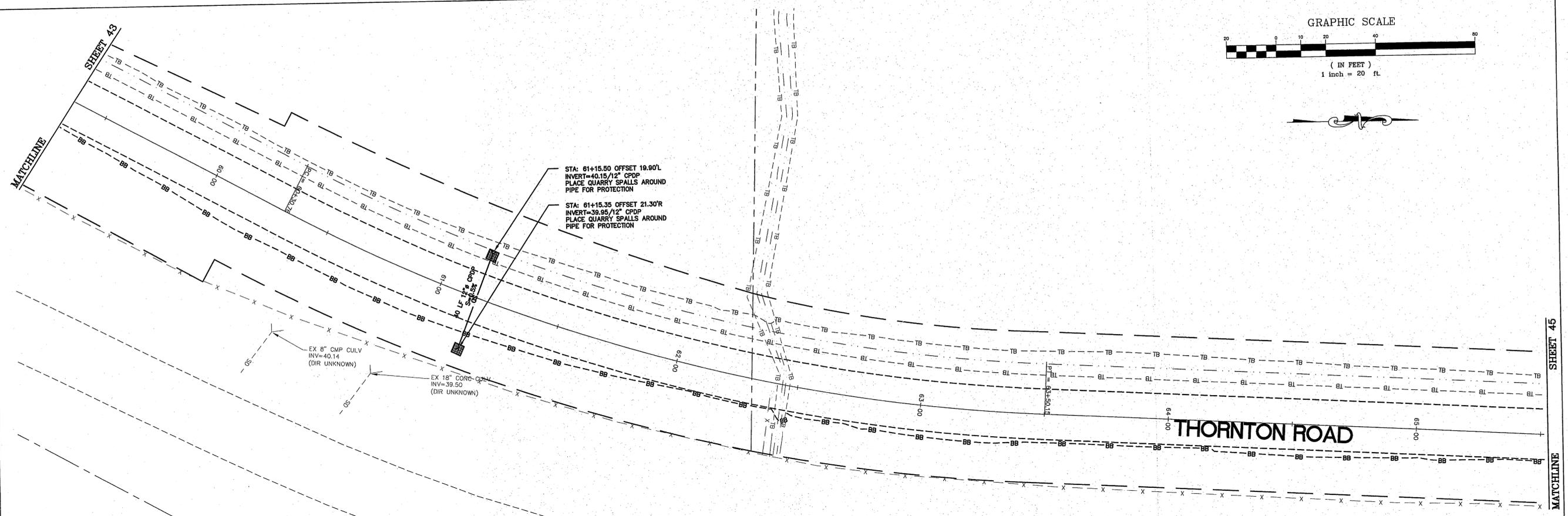
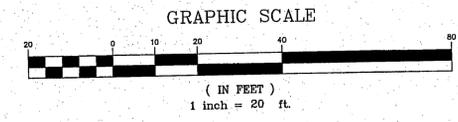
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ENGINEERING, INC.
 CONSULTING ENGINEERS
 PO Box 978 423 Front St., Ste 201
 Lynden, Washington 98264
 Ph (360) 354-3687
 Fax (360) 354-0407

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| | | | |

CITY OF FERDALE
 2095 MAIN STREET
 FERDALE, WA 98248

2ND AVENUE
STREET IMPROVEMENTS
 THORNTON RD. - PLAN AND PROFILE

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|------------------------|----------|
| JOB# / DWG | DATE |
| 07038 SP2 | 7-8-09 |
| SCALE | SHEET |
| H: 1" = 20' v: 1" = 2' | 43 of 72 |



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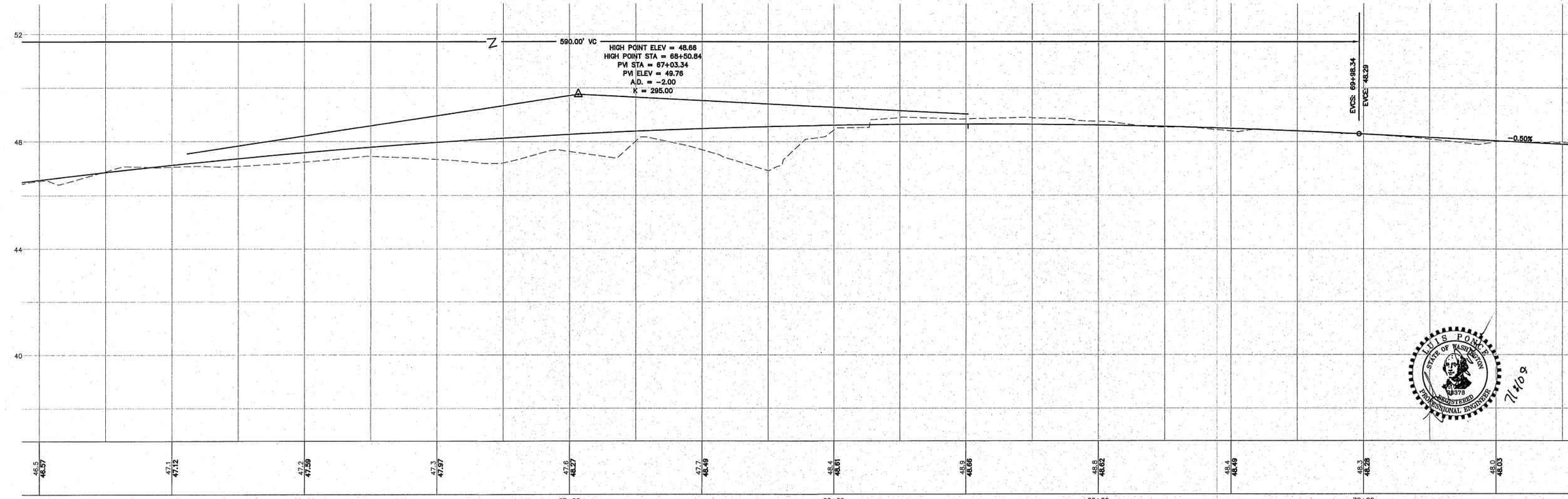
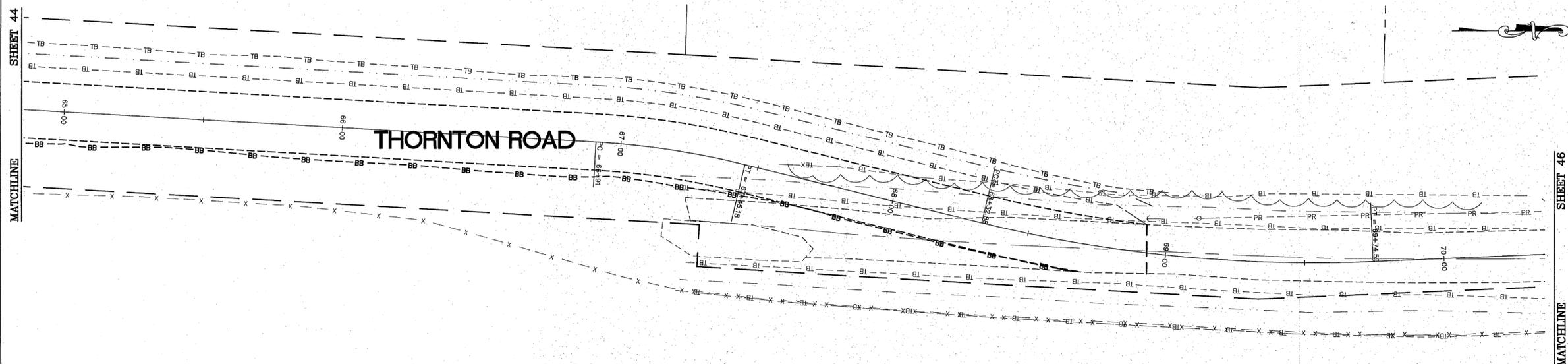
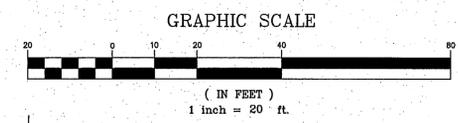
CITY OF FERDALE
2095 MAIN STREET
FERDALE, WA 98248

2ND AVENUE
STREET IMPROVEMENTS
THORNTON RD. - PLAN AND PROFILE

JOB# / DWG 07038 SP2
SCALE H:1"=20' V:1"=2'

DATE 7-8-09
SHEET 44 of 72

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| NO. | DATE | REVISION | BY |
|-----|------|----------|----|
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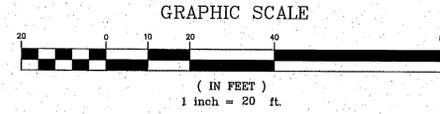
CITY OF FERDALE
2095 MAIN STREET
FERDALE, WA 98248

2ND AVENUE
STREET IMPROVEMENTS
THORNTON RD. - PLAN AND PROFILE

JOB# / DWG
07038 SP2
SCALE
H:1"=20' V:1"=2'

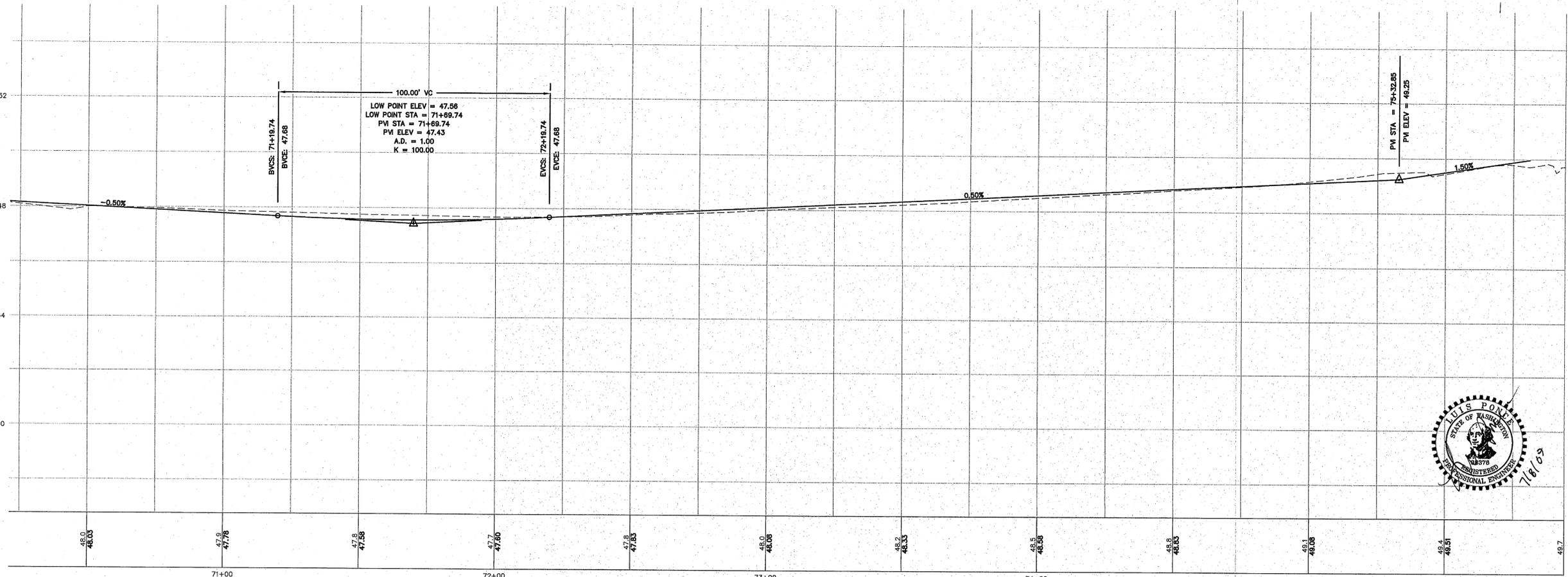
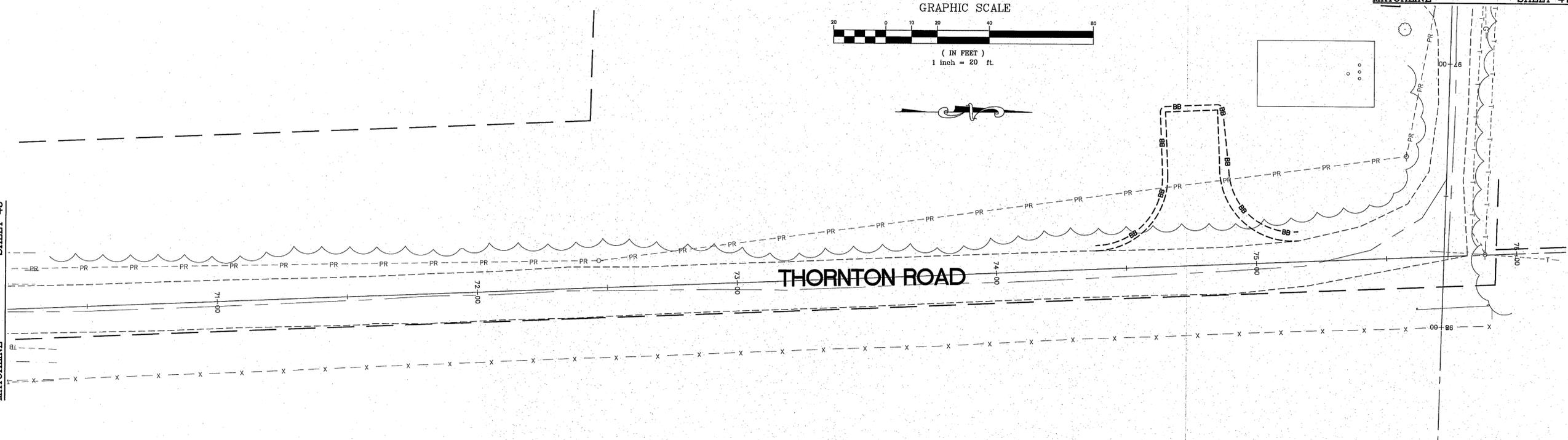
DATE
7-8-09
SHEET
45 of 72

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SHEET 45

MATCHLINE



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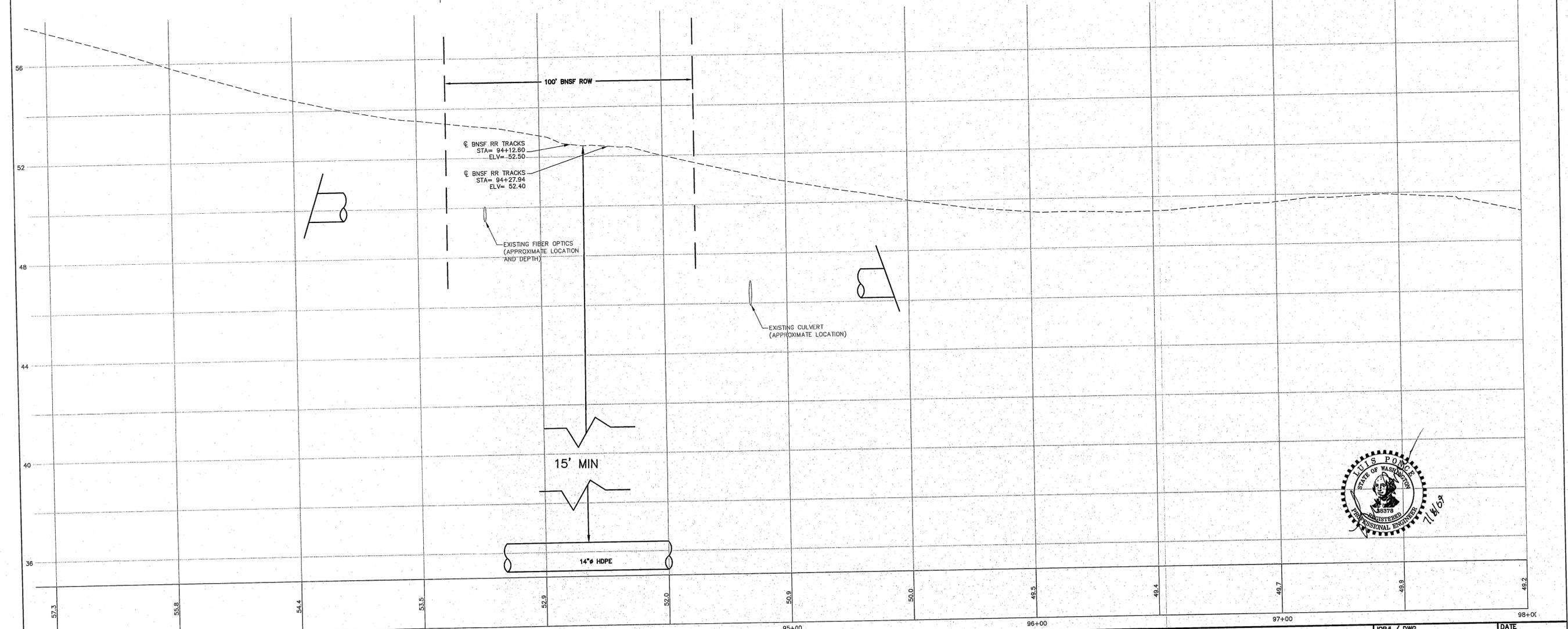
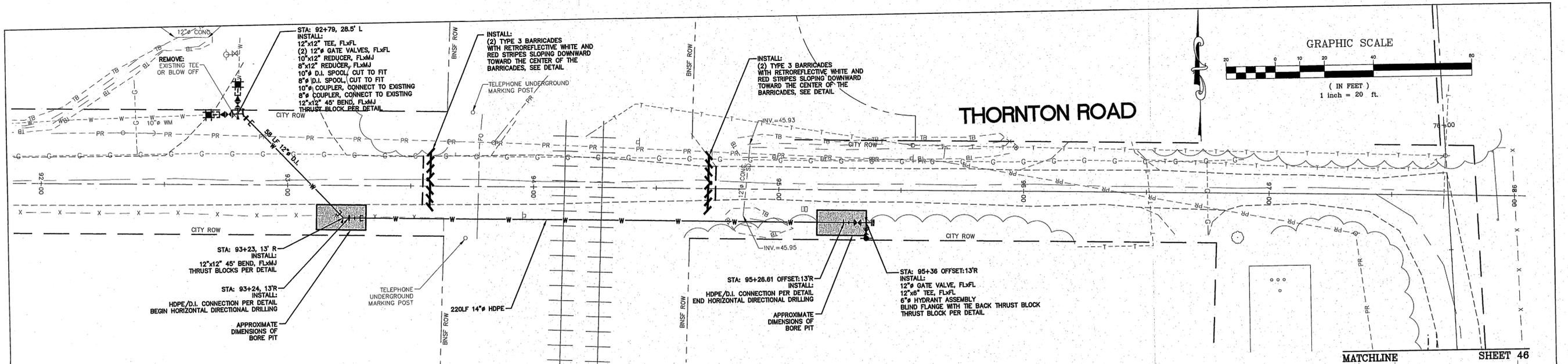
CITY OF FERDALE
 2095 MAIN STREET
 FERDALE, WA 98248

2ND AVENUE
 STREET IMPROVEMENTS
 THORNTON RD. - PLAN AND PROFILE

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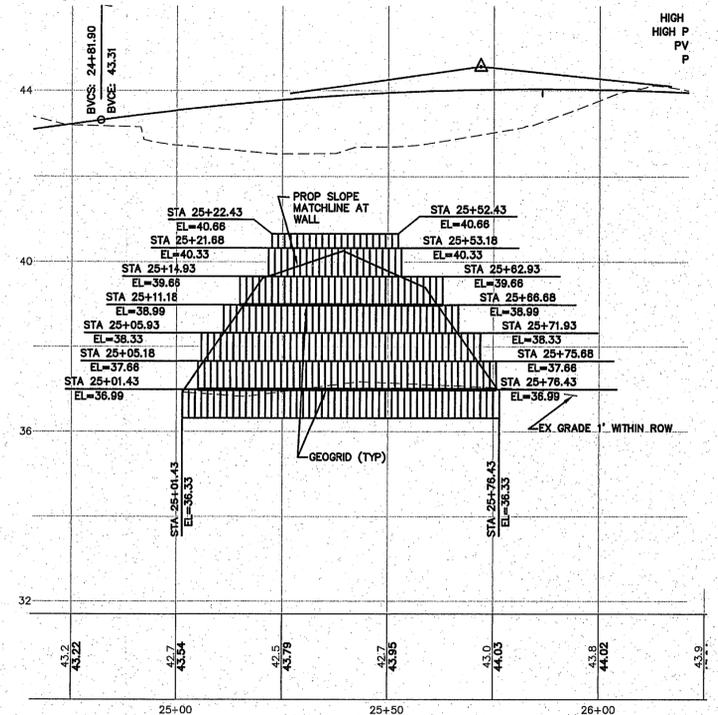
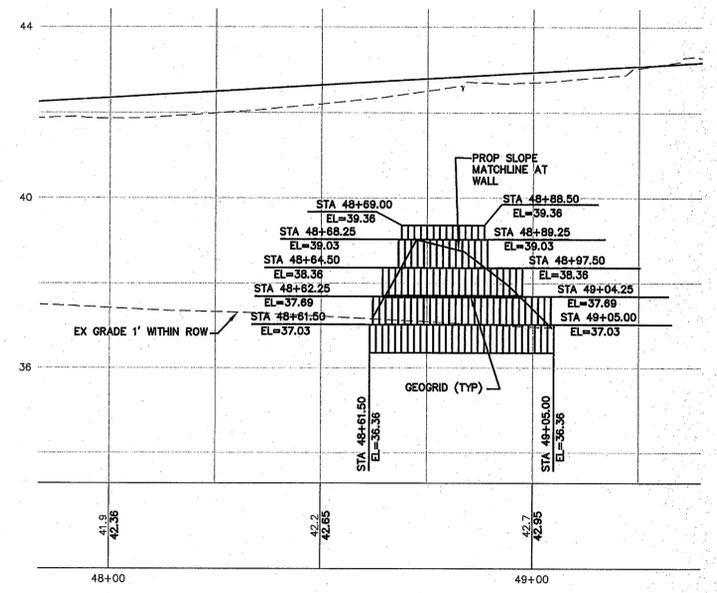
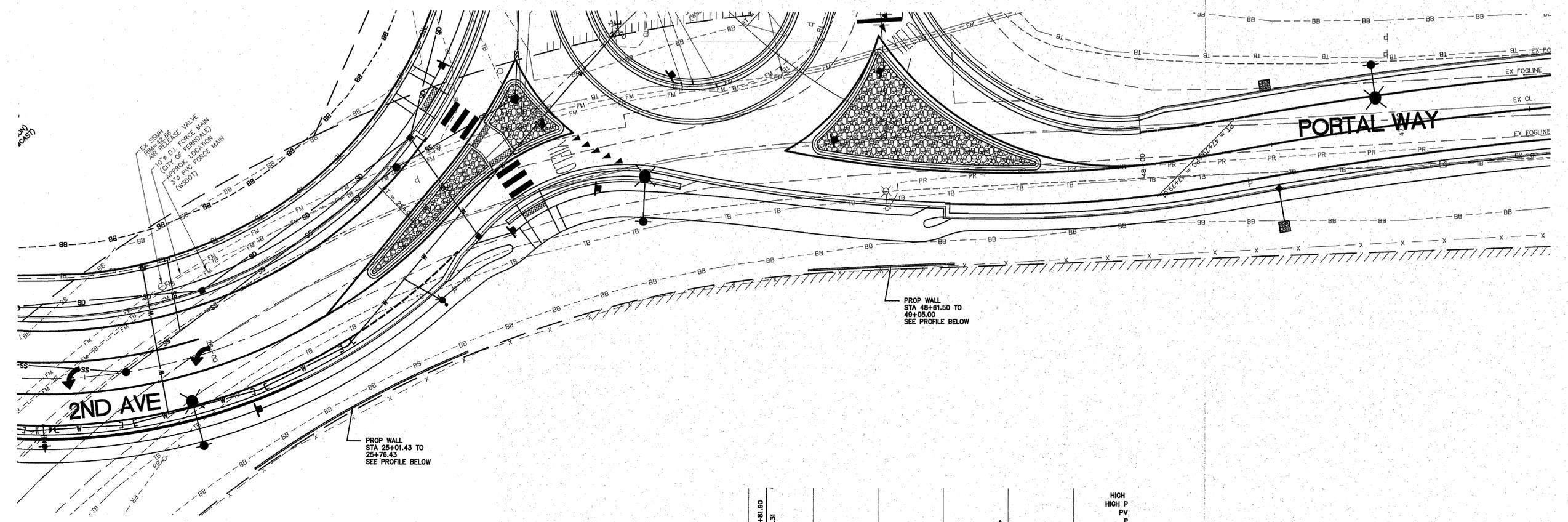
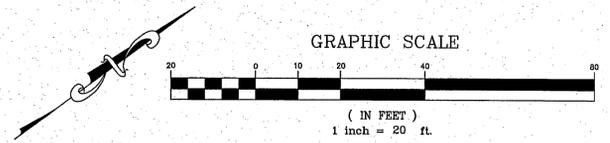
DATE 7-8-09
 SHEET 46 of 72

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| DESIGNED BY LP | R&E REICHHARDT & EBE ENGINEERING, INC. CONSULTING ENGINEERS PO Box 978 423 Front St., Ste 201 Lynden, Washington 98284 Ph (360) 354-3687 Fax (360) 354-0407 | NO. | DATE | REVISION | BY | CITY OF FERDALE 2095 MAIN STREET FERDALE, WA 98248 | 2ND AVENUE STREET IMPROVEMENTS THORNTON RD. - PLAN AND PROFILE | JOB# / DWG 07038 SP2 | DATE 7-8-09 |
| DRAWN BY MLK/LMC | | | | | | | SCALE H: 1" = 20' V: 1" = 2' | SHEET 47 of 72 | |
| CHECKED BY | | | | | | | | | |

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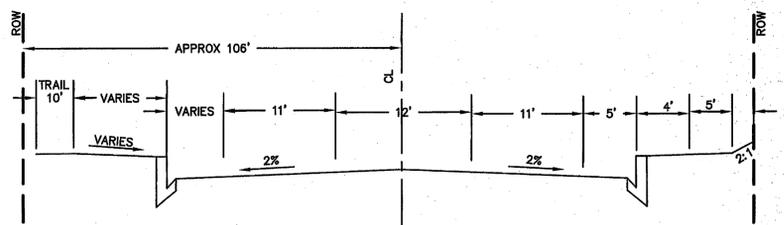
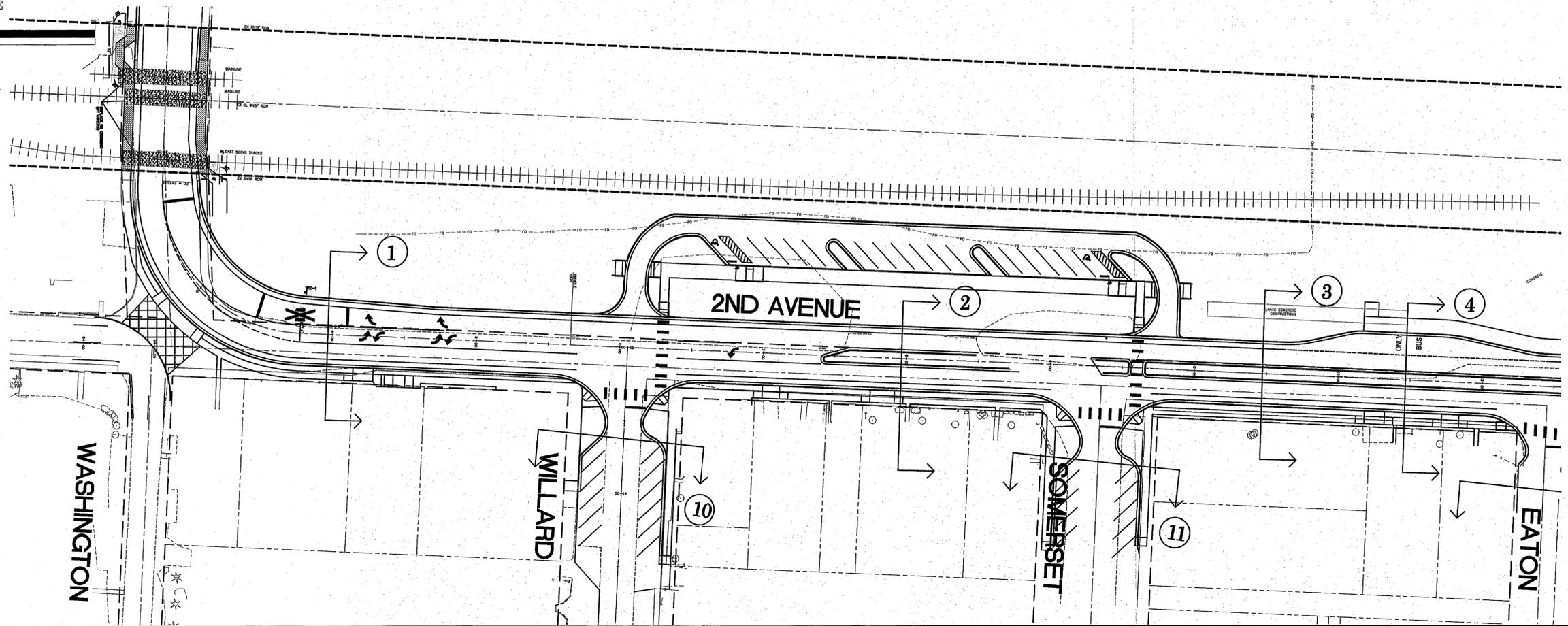
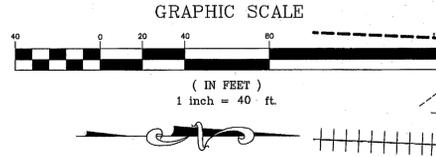
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CITY OF FERDALE
2095 MAIN STREET
FERDALE, WA 98248

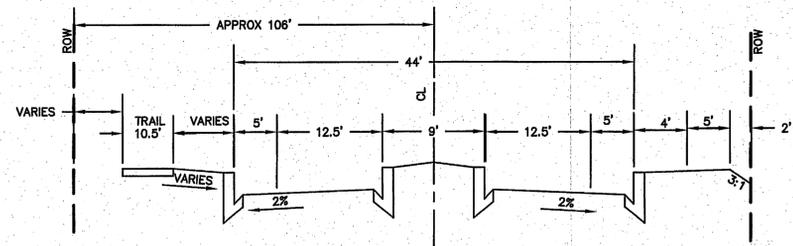
2ND AVENUE
STREET IMPROVEMENTS
WALLS - PLAN AND PROFILE

JOB# / DWG
07038 SP2
SCALE
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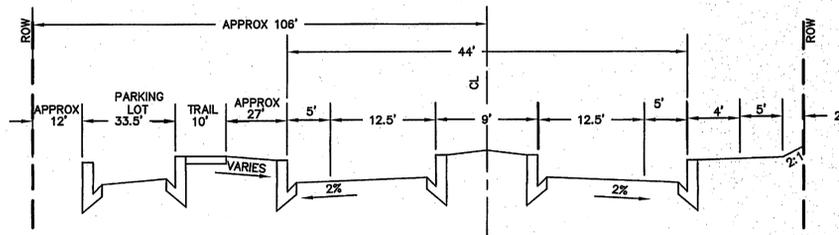
DATE
7-8-09
SHEET
48 of 72



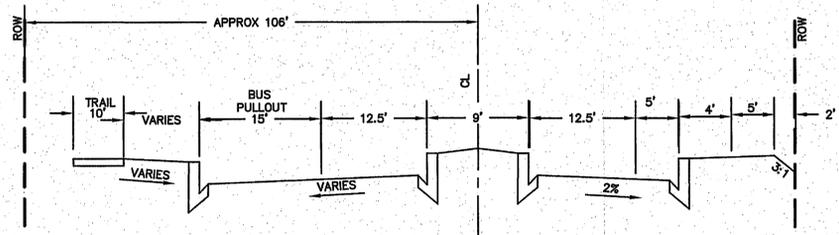
TYPICAL SECTION ①
STA 4+00
NTS



TYPICAL SECTION ③
STA 10+50
NTS



TYPICAL SECTION ②
STA 8+00
NTS



TYPICAL SECTION ④
STA 11+50
NTS



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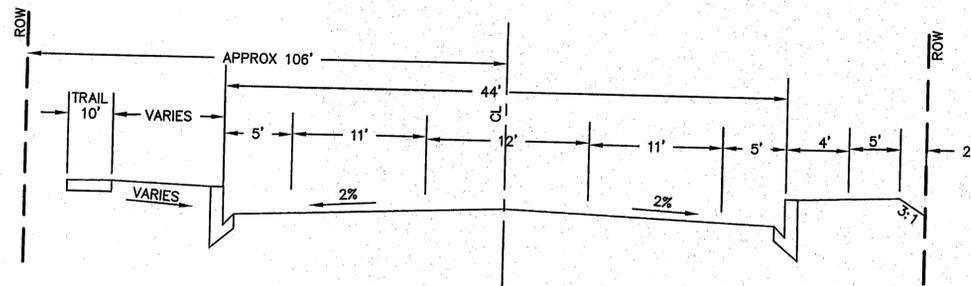
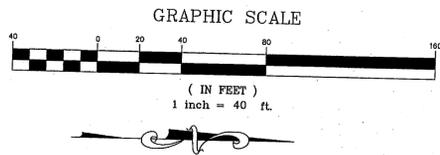
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CITY OF FERDALE
2095 MAIN STREET
FERDALE, WA 98248

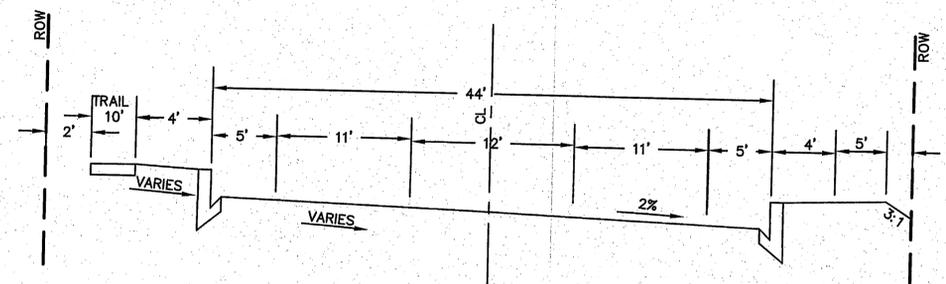
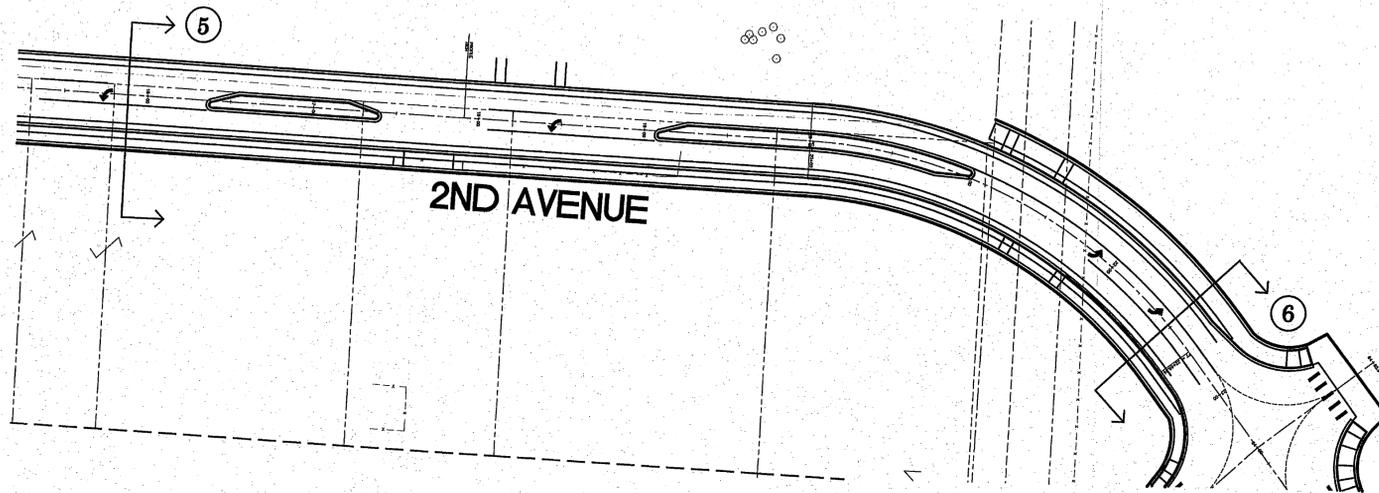
2ND AVENUE
STREET IMPROVEMENTS
TYPICAL SECTIONS

JOB# / DWG
07038 SP2
SCALE
H: 1" = 40' V: N/A

DATE
7-8-09
SHEET
50 of 72



TYPICAL SECTION (5)
STA 16+00
NTS



TYPICAL SECTION (6)
STA 22+50
NTS



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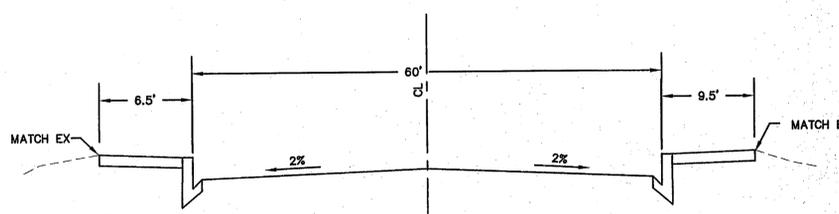
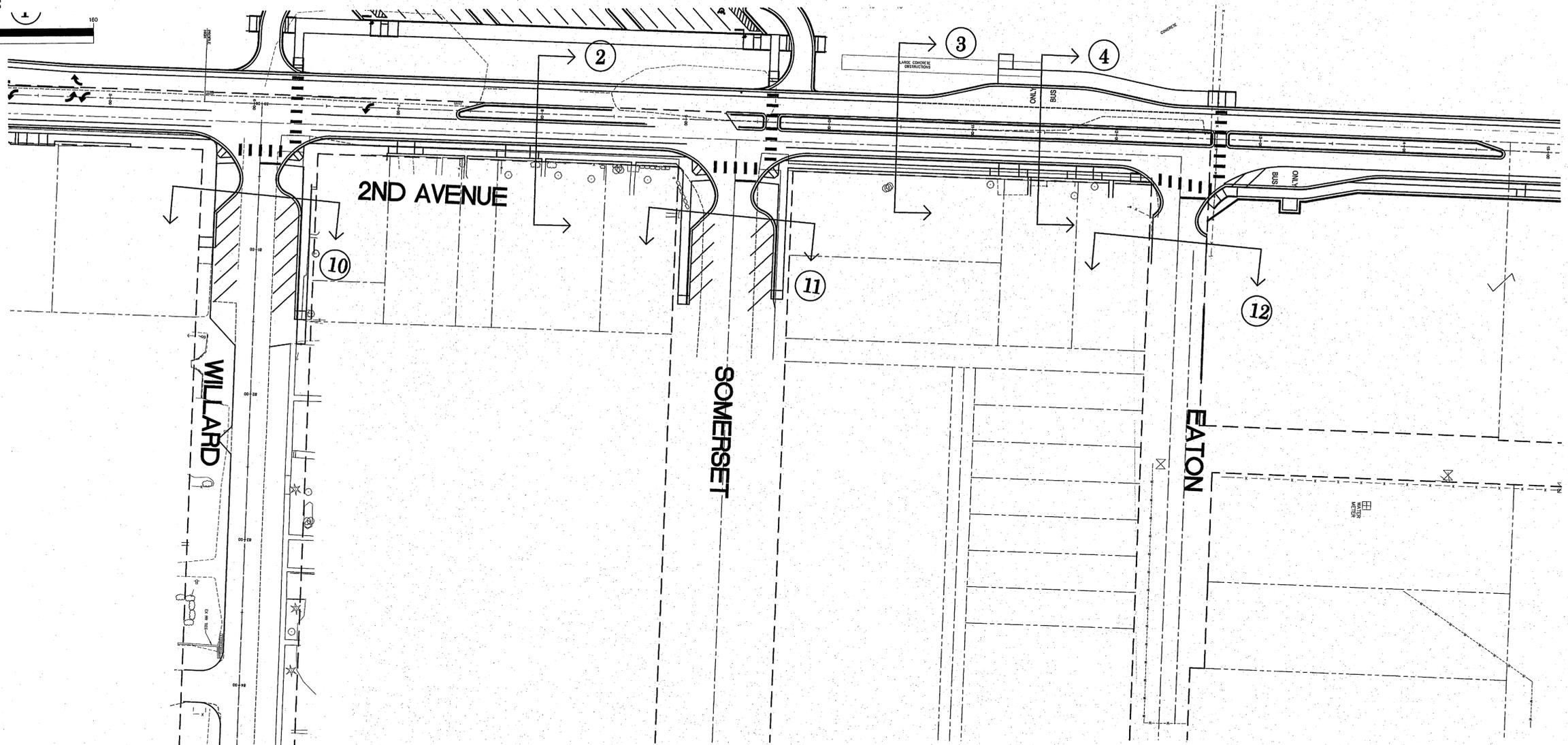
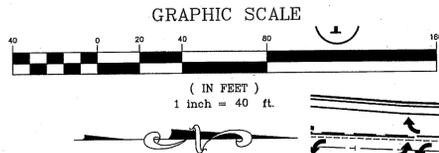
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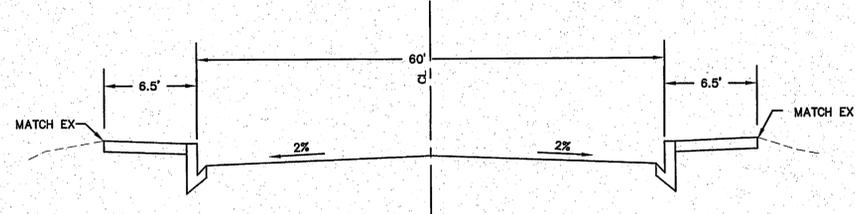
CITY OF FERDALE
2095 MAIN STREET
FERDALE, WA 98248

2ND AVENUE
STREET IMPROVEMENTS
TYPICAL SECTIONS

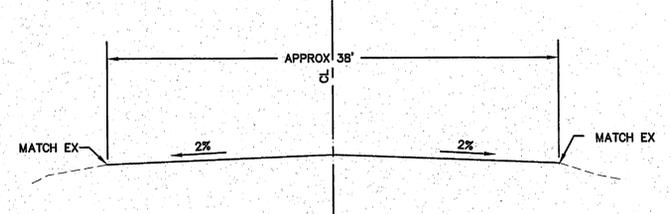
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| JOB# / DWG 07038 | SP2 | DATE 7-8-09 |
| SCALE H: 1" = 40' v: N/A | SHEET 51 of 72 | |



TYPICAL SECTION 10
WILLARD AVE
NTS



TYPICAL SECTION 11
SOMERSET
NTS



TYPICAL SECTION 12
EATON
NTS



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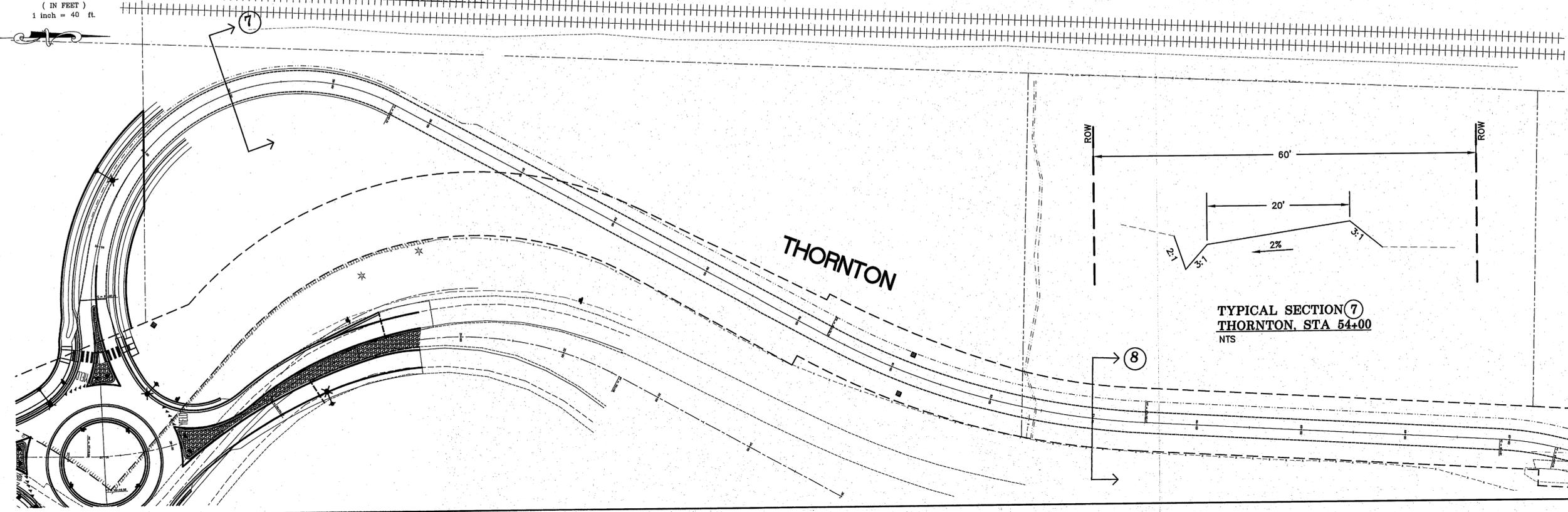
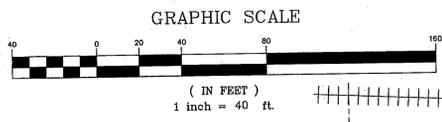
CITY OF FERDALE
2095 MAIN STREET
FERDALE, WA 98248

2ND AVENUE
STREET IMPROVEMENTS
TYPICAL SECTIONS

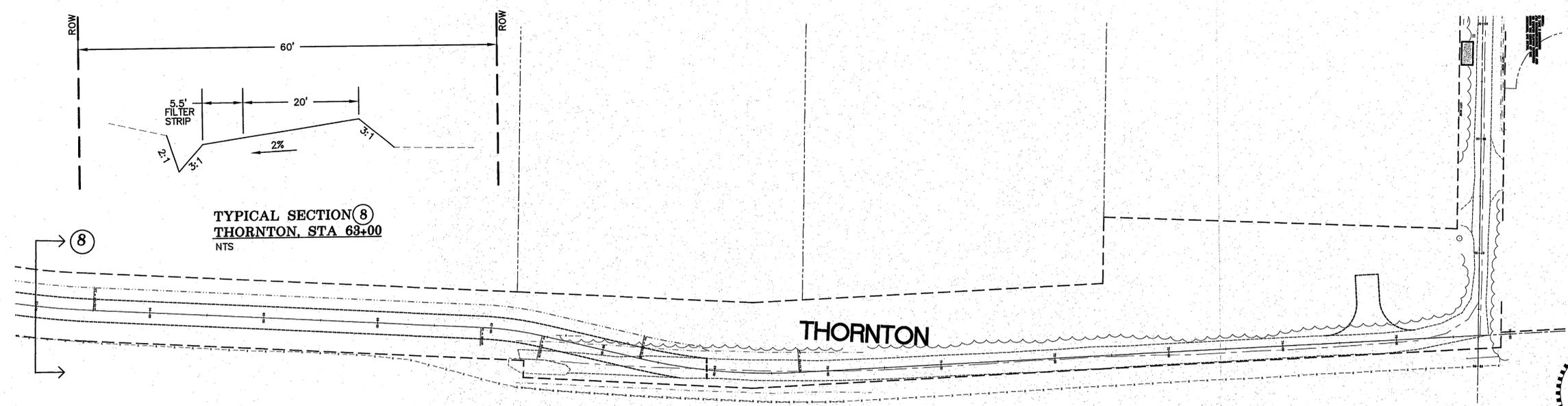
JOB# / DWG
07038 SP2
SCALE
H: 1" = 40' V: N/A

DATE
7-8-09
SHEET
52 of 72

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TYPICAL SECTION (7)
 THORNTON, STA 54+00
 NTS



TYPICAL SECTION (8)
 THORNTON, STA 63+00
 NTS



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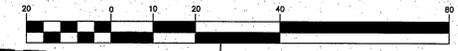
CITY OF FERDALE
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 FERDALE, WA 98248

2ND AVENUE
 STREET IMPROVEMENTS
 TYPICAL SECTIONS

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| JOB# / DWG 07038 SP2 | DATE 7-8-09 |
| SCALE H: 1" = 40' v: N/A | SHEET 53 of 72 |

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GRAPHIC SCALE



1 inch = 20 ft.

ACCESSIBLE PARKING STALLS, PAINT LINES, SYMBOLS, SIGNS, AND WHEEL STOPS PER WSDOT STANDARD PLAN M-17.10-01

2ND AVE

WILLARD

EATON

| C3 | | FLOW LINE | |
|---------|-------|-----------|---------|
| PC | PT | STATION | STATION |
| 8+84.68 | 22.00 | 8+84.68 | 22.00 |
| 8+96.23 | 23.70 | 8+96.23 | 23.70 |
| 9+08.80 | 28.67 | 9+08.80 | 28.67 |
| 9+18.48 | 36.49 | 9+18.48 | 36.49 |
| 9+21.54 | 46.47 | 9+21.54 | 36.00 |

| C4 | | FLOW LINE | |
|---------|-------|-----------|---------|
| PC | PT | STATION | STATION |
| 9+49.52 | 47.59 | 9+49.52 | 47.59 |
| 9+55.46 | 37.19 | 9+55.46 | 35.72 |
| 9+64.21 | 29.01 | 9+64.21 | 35.52 |
| 9+75.00 | 23.80 | 9+75.00 | 33.46 |
| 9+86.81 | 22.01 | 9+86.81 | 35.50 |

| C5 | | FLOW LINE | |
|----------|-------|-----------|---------|
| PC | PT | STATION | STATION |
| 12+02.56 | 22.08 | 12+02.56 | 36.50 |
| 12+11.57 | 23.38 | 12+11.57 | 36.54 |
| 12+19.85 | 27.16 | 12+19.85 | 36.49 |
| 12+28.73 | 33.12 | 12+28.73 | 36.45 |
| 12+31.85 | 40.77 | 12+31.85 | 36.41 |

| C6 | | FLOW LINE | |
|----------|----------|-----------|---------|
| PC | PT | STATION | STATION |
| 12+59.22 | 52.61 | 12+59.22 | 36.42 |
| 12+62.28 | 46.38 | 12+62.28 | 36.37 |
| 12+66.38 | 40.73 | 12+66.38 | 36.49 |
| 12+71.40 | 35.89 | 12+71.40 | 36.81 |
| ANGLE | 12+77.16 | 32.00 | 36.72 |



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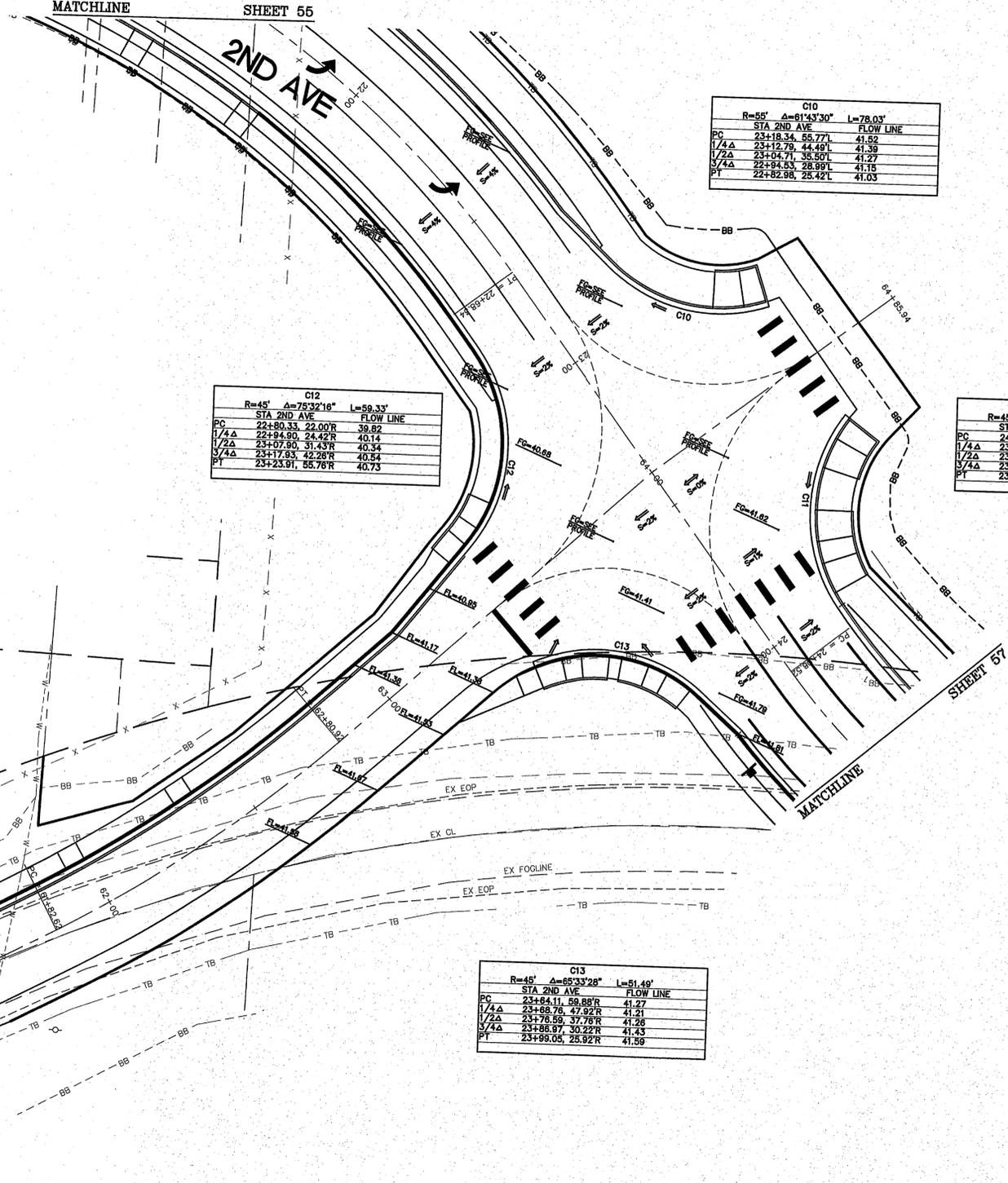
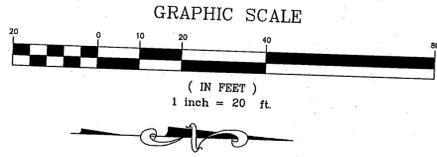
CITY OF FERDALE
2095 MAIN STREET
FERDALE, WA 98248

2ND AVENUE
STREET IMPROVEMENTS
GRADING PLAN

JOB# / DWG 07038 SP2
SCALE 1" = 20' v N/A

DATE 7-8-09
SHEET 55 of 72

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| C10 | |
|-------------|------------------|
| STA 2ND AVE | FLOW LINE |
| PC | 23+18.34, 55.77L |
| 1/4Δ | 23+12.75, 44.49L |
| 1/2Δ | 23+04.71, 35.50L |
| 3/4Δ | 22+84.53, 28.99L |
| PT | 22+82.95, 25.42L |

| C12 | |
|-------------|------------------|
| STA 2ND AVE | FLOW LINE |
| PC | 22+80.33, 22.00R |
| 1/4Δ | 22+84.90, 24.42R |
| 1/2Δ | 23+07.90, 31.43R |
| 3/4Δ | 23+17.93, 42.28R |
| PT | 23+23.91, 55.78R |

| C11 | |
|-------------|------------------|
| STA 2ND AVE | FLOW LINE |
| PC | 24+01.55, 23.03L |
| 1/4Δ | 23+87.51, 25.61L |
| 1/2Δ | 23+74.99, 32.45L |
| 3/4Δ | 23+59.25, 43.88L |
| PT | 23+59.25, 55.82L |

| C13 | |
|-------------|------------------|
| STA 2ND AVE | FLOW LINE |
| PC | 23+84.11, 59.88R |
| 1/4Δ | 23+88.76, 47.92R |
| 1/2Δ | 23+78.59, 37.76R |
| 3/4Δ | 23+86.97, 30.22R |
| PT | 23+99.05, 25.92R |



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CHECKED BY



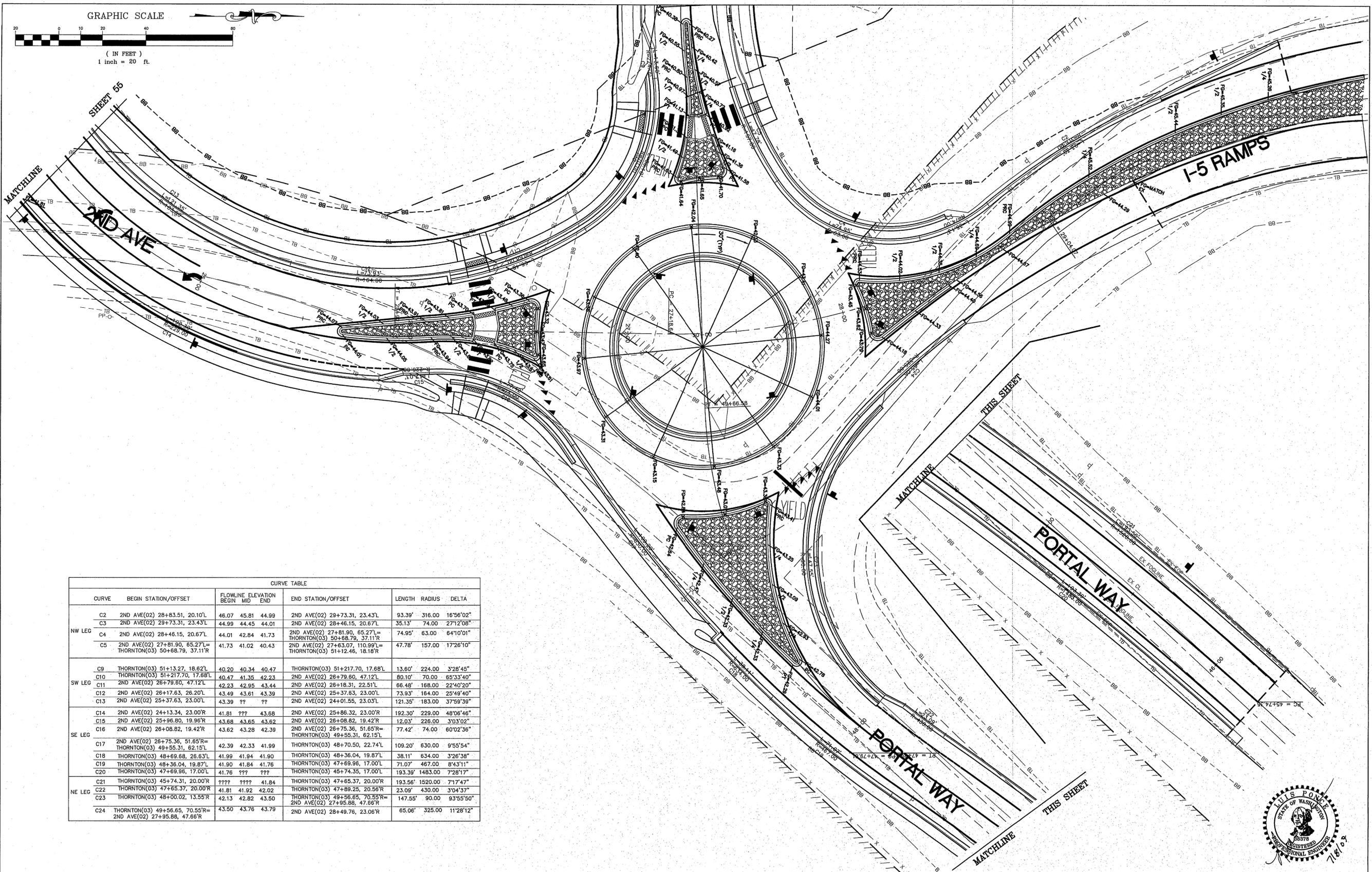
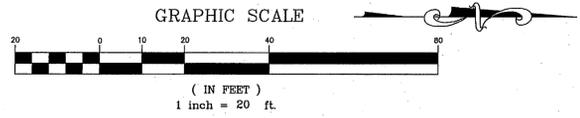
REICHHARDT & EBE
ENGINEERING, INC.
CONSULTING ENGINEERS
PO Box 978 423 Front St., Ste 201 Ph (360) 354-3887
Lynden, Washington 98264 Fax (360) 354-0407

| NO. | DATE | REVISION | BY |
|-----|------|----------|----|
| | | | |

CITY OF FERDALE
2095 MAIN STREET
FERDALE, WA 98248

2ND AVENUE
STREET IMPROVEMENTS
GRADING PLAN

| | | | |
|------------|----------------|-------|----------|
| JOB# / DWG | 07038 SP2 | DATE | 7-8-09 |
| SCALE | H:1"=20' v:N/A | SHEET | 56 OF 72 |



CURVE TABLE

| CURVE | BEGIN STATION/OFFSET | FLOWLINE ELEVATION | | | END STATION/OFFSET | LENGTH | RADIUS | DELTA |
|--------|--|--------------------|-------|-------|---|---------|---------|-----------|
| | | BEGIN | MID | END | | | | |
| NW LEG | C2 2ND AVE(02) 28+83.51, 20.10'L | 46.07 | 45.81 | 44.99 | 2ND AVE(02) 28+73.31, 23.43'L | 93.39' | 316.00 | 16°56'02" |
| | C3 2ND AVE(02) 29+73.31, 23.43'L | 44.99 | 44.45 | 44.01 | 2ND AVE(02) 28+46.15, 20.67'L | 35.13' | 74.00 | 27°12'08" |
| | C4 2ND AVE(02) 28+46.15, 20.67'L | 44.01 | 42.84 | 41.73 | 2ND AVE(02) 27+81.90, 65.27'L = THORNTON(03) 50+88.79, 37.11'R | 74.95' | 63.00 | 64°10'01" |
| | C5 2ND AVE(02) 27+81.90, 65.27'L = THORNTON(03) 50+88.79, 37.11'R | 41.73 | 41.02 | 40.43 | 2ND AVE(02) 27+63.07, 110.99'L = THORNTON(03) 51+12.46, 18.18'R | 47.78' | 157.00 | 17°28'10" |
| SW LEG | C9 THORNTON(03) 51+13.27, 18.62'L | 40.20 | 40.34 | 40.47 | THORNTON(03) 51+217.70, 17.68'L | 13.60' | 224.00 | 3°28'45" |
| | C10 THORNTON(03) 51+217.70, 17.68'L | 40.47 | 41.35 | 42.23 | 2ND AVE(02) 26+79.60, 47.12'L | 80.10' | 70.00 | 85°33'40" |
| | C11 2ND AVE(02) 26+79.60, 47.12'L | 42.23 | 42.95 | 43.44 | 2ND AVE(02) 26+18.31, 22.51'L | 66.48' | 188.00 | 22°40'20" |
| | C12 2ND AVE(02) 26+17.63, 26.20'L | 43.49 | 43.61 | 43.39 | 2ND AVE(02) 25+37.63, 23.00'L | 73.93' | 184.00 | 25°49'40" |
| SE LEG | C13 2ND AVE(02) 25+37.63, 23.00'L | 43.39 | ?? | ?? | 2ND AVE(02) 24+01.55, 23.03'L | 121.35' | 183.00 | 37°59'39" |
| | C14 2ND AVE(02) 24+13.34, 23.00'R | 41.81 | ??? | 43.68 | 2ND AVE(02) 25+86.32, 23.00'R | 192.30' | 229.00 | 48°06'46" |
| | C15 2ND AVE(02) 25+96.80, 19.96'R | 43.68 | 43.65 | 43.62 | 2ND AVE(02) 26+08.82, 19.42'R | 12.03' | 228.00 | 3°03'02" |
| | C16 2ND AVE(02) 26+08.82, 19.42'R | 43.62 | 43.28 | 42.39 | 2ND AVE(02) 26+75.36, 51.65'R = THORNTON(03) 48+55.31, 62.15'L | 77.42' | 74.00 | 60°02'36" |
| NE LEG | C17 2ND AVE(02) 26+75.36, 51.65'R = THORNTON(03) 48+55.31, 62.15'L | 42.39 | 42.33 | 41.99 | THORNTON(03) 48+70.50, 22.74'L | 109.20' | 630.00 | 9°55'54" |
| | C18 THORNTON(03) 48+69.68, 26.63'L | 41.99 | 41.94 | 41.90 | THORNTON(03) 48+36.04, 19.87'L | 38.11' | 634.00 | 3°26'38" |
| | C19 THORNTON(03) 48+36.04, 19.87'L | 41.90 | 41.84 | 41.76 | THORNTON(03) 47+69.96, 17.00'L | 71.07' | 467.00 | 8°43'11" |
| | C20 THORNTON(03) 47+69.96, 17.00'L | 41.76 | ??? | ??? | THORNTON(03) 45+74.35, 17.00'L | 193.39' | 1483.00 | 7°28'17" |
| NE LEG | C21 THORNTON(03) 45+74.31, 20.00'R | ??? | ??? | 41.84 | THORNTON(03) 47+65.37, 20.00'R | 193.56' | 1520.00 | 7°17'47" |
| | C22 THORNTON(03) 47+65.37, 20.00'R | 41.81 | 41.92 | 42.02 | THORNTON(03) 47+89.25, 20.56'R | 23.09' | 430.00 | 3°04'37" |
| | C23 THORNTON(03) 48+00.02, 13.55'R | 42.13 | 42.82 | 43.50 | THORNTON(03) 48+56.65, 70.55'R = 2ND AVE(02) 27+95.88, 47.66'R | 147.55' | 90.00 | 93°55'50" |
| | C24 THORNTON(03) 49+56.65, 70.55'R = 2ND AVE(02) 27+95.88, 47.66'R | 43.50 | 43.76 | 43.75 | 2ND AVE(02) 28+49.76, 23.06'R | 65.06' | 325.00 | 11°28'12" |



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LP
DRAWN BY
MLK/LMC
CHECKED BY

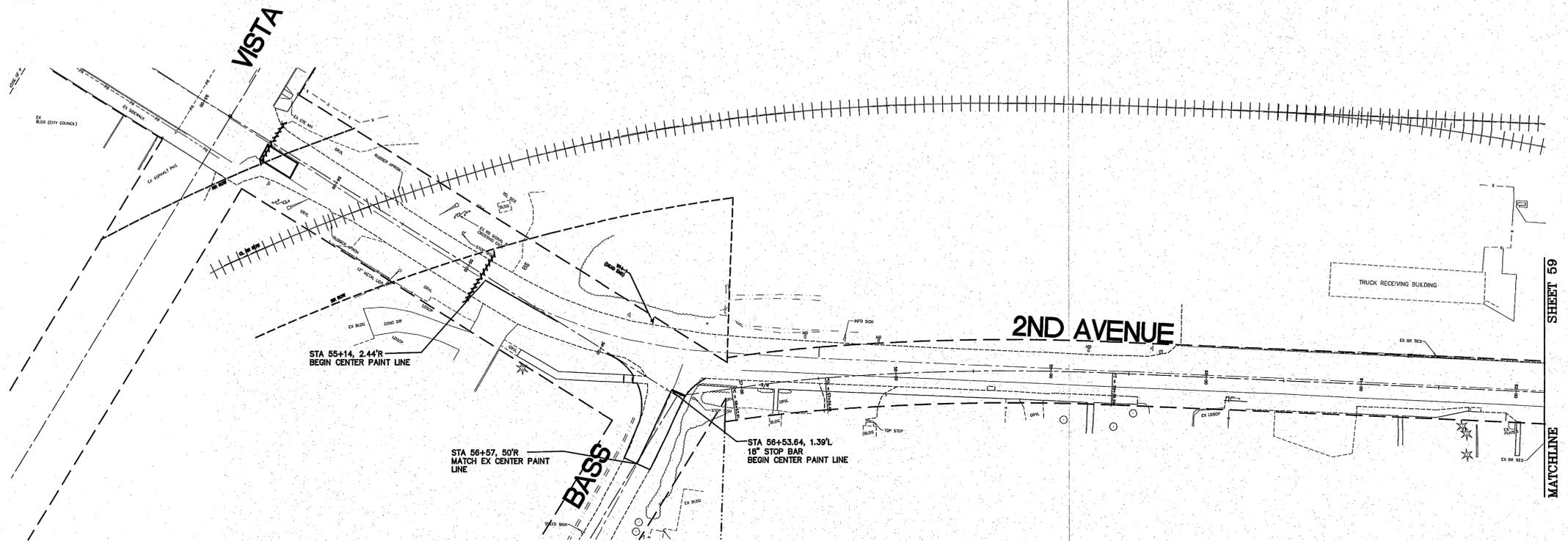
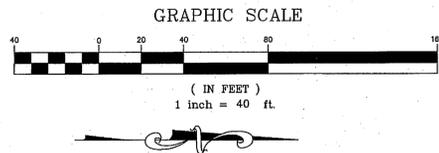
REICHHARDT & EBE
ENGINEERING, INC.
CONSULTING ENGINEERS
PO Box 978 423 Front St., Ste 201 Ph (360) 354-3687
Lynden, Washington 98248 Fax (360) 354-0407

| | | | |
|-----|------|----------|----|
| NO. | DATE | REVISION | BY |
| | | | |

CITY OF FERDALE
2005 MAIN STREET
FERDALE, WA 98248

2ND AVENUE
STREET IMPROVEMENTS
GRADING PLAN

| | |
|----------------|----------|
| JOB# / DWG | DATE |
| 07038 SP2 | 7-8-09 |
| SCALE | SHEET |
| H:1"=20' v:N/A | 57 of 72 |



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LP
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ENGINEERING, INC.
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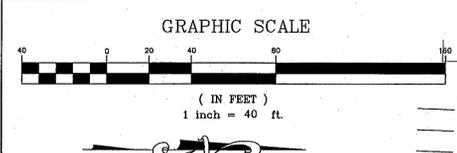
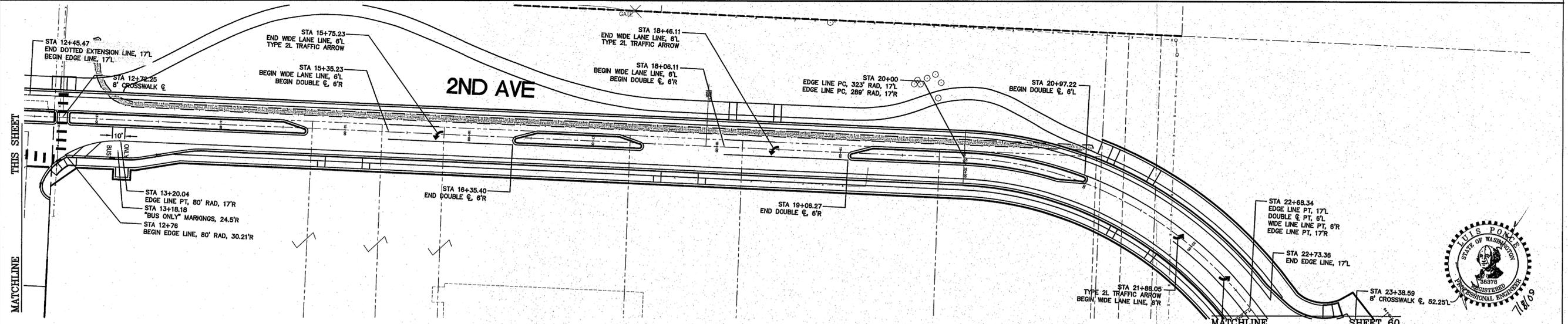
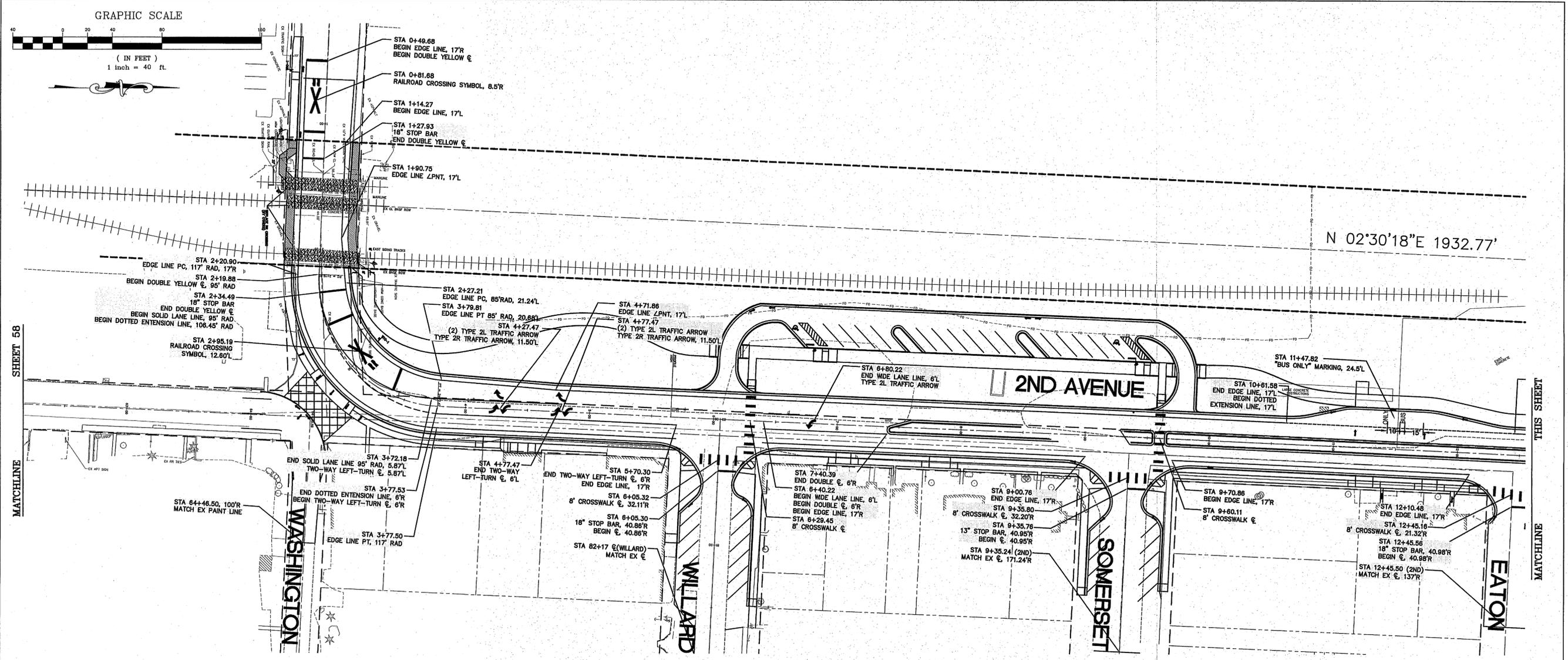
| NO. | DATE | REVISION | BY |
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CITY OF FERNDALE
 2095 MAIN STREET
 FERNDALE, WA 98248

2ND AVENUE
STREET IMPROVEMENTS
CHANNELIZATION PLAN

| | |
|--------------------|-----------------|
| JOB# / DWG | DATE |
| 07038 SP2 | 7-8-09 |
| SCALE | SHEET |
| H: 1" = 40' v: N/A | 58 of 72 |

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SHEET 58

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THIS SHEET

SHEET 60

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Lynden, Washington 98284
Ph (360) 354-3887
Fax (360) 354-0407

| NO. | DATE | REVISION | BY |
|-----|------|----------|----|
| | | | |

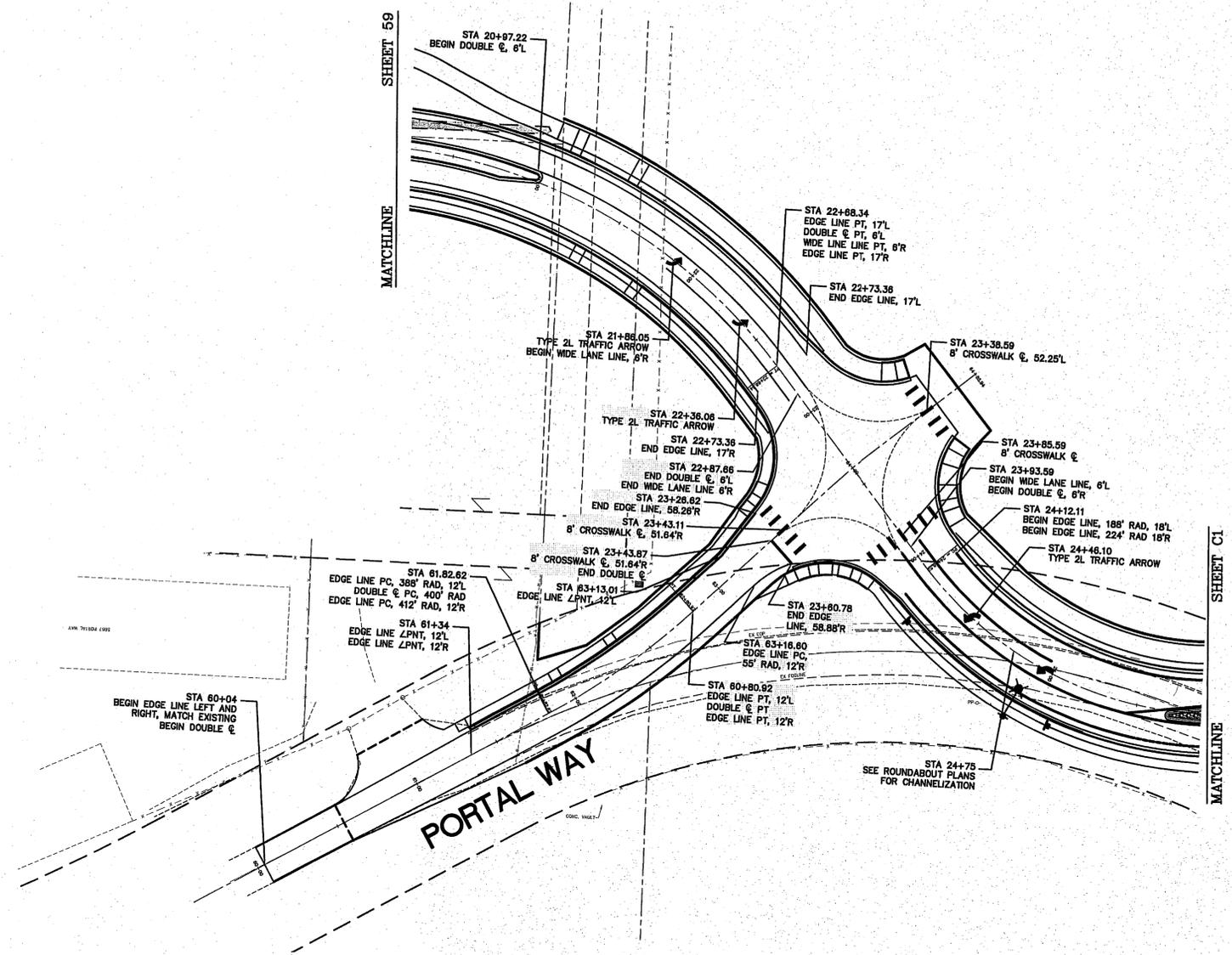
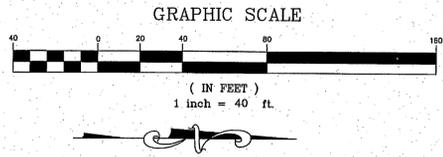
CITY OF FERDALE
2095 MAIN STREET
FERDALE, WA 98248

2ND AVENUE
STREET IMPROVEMENTS
CHANNELIZATION PLAN

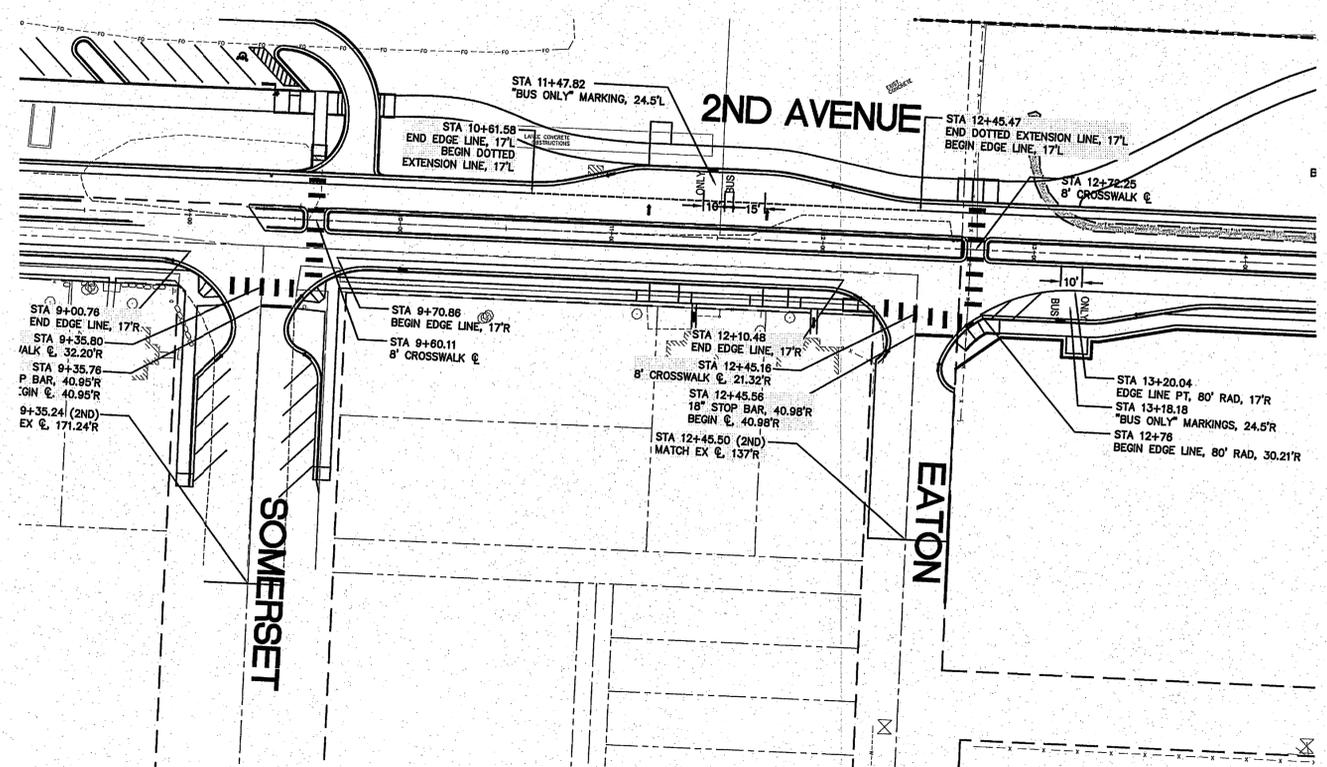
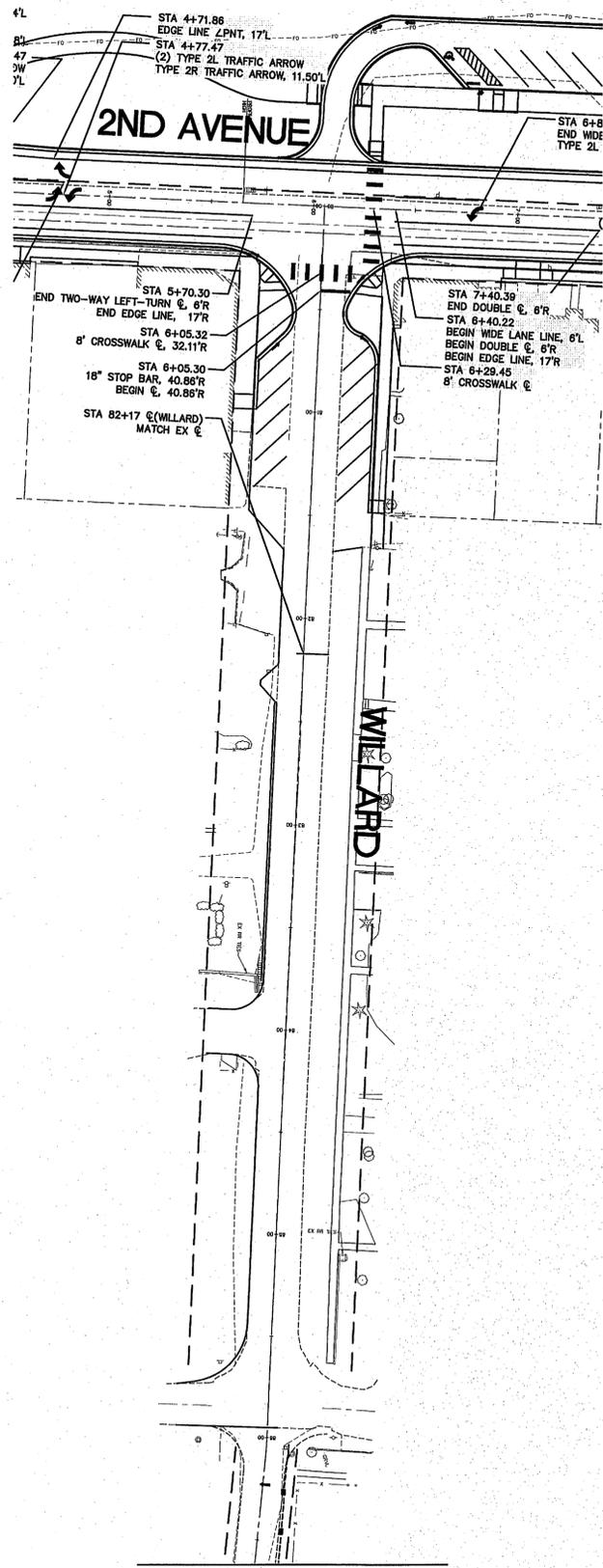
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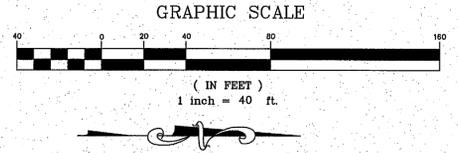
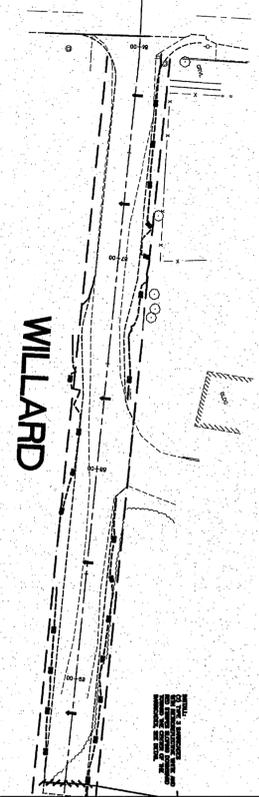
DATE 7-8-09
SHEET 59 of 72



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|---------------------|--|-------------------------|-------------------|----------|----|--|---|-------------------------|----------------|
| DESIGNED BY LP |  REICHHARDT & EBE ENGINEERING, INC. CONSULTING ENGINEERS PO Box 978 423 Front St., Ste 201 Ph (360) 354-3887 Lynden, Washington 98264 Fax (360) 354-0407 | NO. | DATE | REVISION | BY | CITY OF FERDALE 2095 MAIN STREET FERDALE, WA 98248 | 2ND AVENUE STREET IMPROVEMENTS CHANNELIZATION PLAN | JOB# / DWG 07038 SP2 | DATE 7-8-09 |
| DRAWN BY MLK/LMC | | SCALE H:1"=40' v:N/A | SHEET 60 of 72 | | | | | | |
| CHECKED BY | | | | | | | | | |



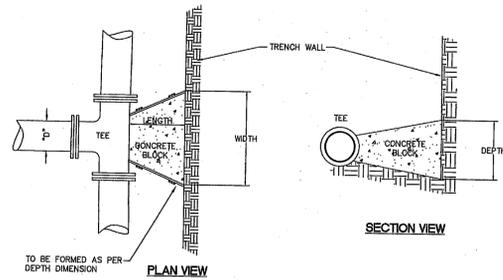
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MATCHLINE THIS SHEET

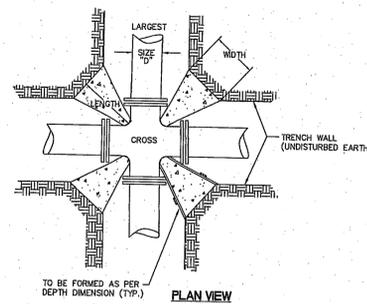
| | | | | | | | | | |
|---------------------|--|-------------------------|-------|----------|----------|--|---|-------------------------|----------------|
| DESIGNED BY LP |  REICHHARDT & EBE ENGINEERING, INC. CONSULTING ENGINEERS PO Box 978 423 Front St., Ste 201 Ph (360) 354-3687 Lynden, Washington 98264 Fax (360) 354-0407 | NO. | DATE | REVISION | BY | CITY OF FERDALE 2065 MAIN STREET FERDALE, WA 98248 | 2ND AVENUE STREET IMPROVEMENTS CHANNELIZATION PLAN | JOB# / DWG 07038 SP2 | DATE 7-8-09 |
| DRAWN BY MLK/LMC | | SCALE H:1"=40' v:N/A | SHEET | | 61 of 72 | | | | |
| CHECKED BY | | | | | | | | | |

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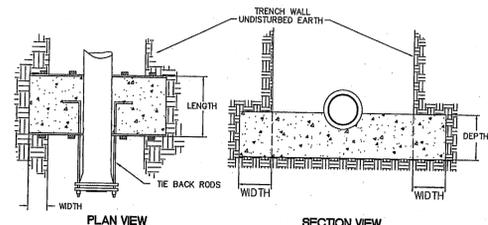
| "D" | WIDTH | DEPTH | LENGTH | VOL. |
|-----|-------|-------|--------|------|
| 6" | 1'-6" | 1'-6" | 12" | 3.0 |
| 8" | 2'-0" | 2'-0" | 12" | 4.5 |
| 10" | 2'-6" | 2'-6" | 12" | 7.0 |
| 12" | 3'-0" | 3'-0" | 18" | 13.0 |

VOL. = Approx. Volume of Blocking Material Required in cu. ft.
 SOIL BEARING CAPACITY 1500 PSF MINIMUM
 100 P.S.I. OPERATING PRESSURE



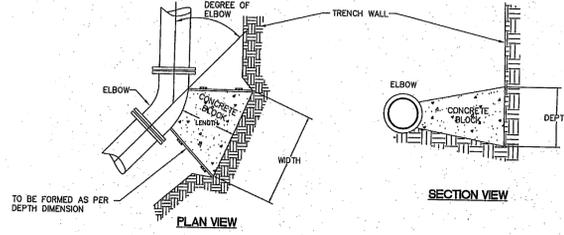
| "D" | WIDTH | DEPTH | LENGTH | VOL. | X4 blocks/joint |
|-----|-------|-------|--------|------|-----------------|
| 6" | 1'-0" | 1'-0" | 12" | 0.63 | 2.50 cu ft |
| 8" | 1'-3" | 1'-3" | 12" | 1.00 | 4.01 cu ft |
| 10" | 1'-6" | 1'-6" | 12" | 1.63 | 6.50 cu ft |
| 12" | 1'-9" | 1'-9" | 18" | 3.05 | 12.19 cu ft |

VOL. = Approx. Volume of Blocking Material Required in cu. ft.



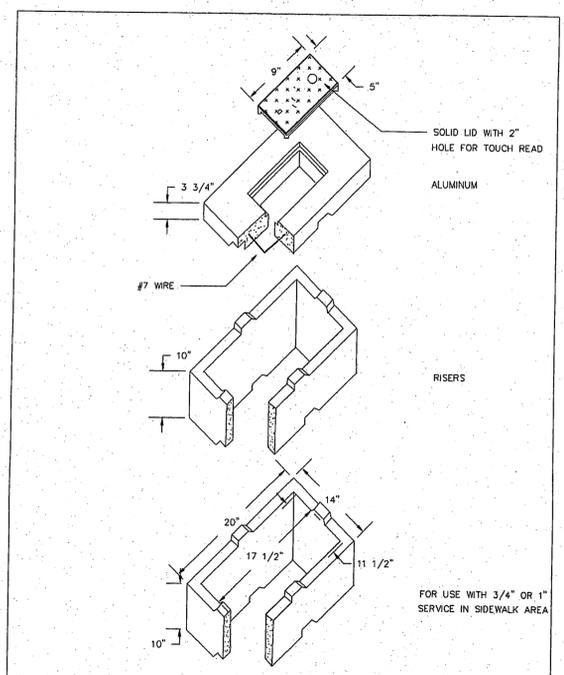
| "D" | WIDTH | DEPTH | LENGTH | *VOL. | # OF RODS | ROD DIA. |
|-----|-------|-------|--------|-------|-----------|----------|
| 6" | 1'-6" | 1'-6" | 12" | 7.5 | 2 | 1/2" |
| 8" | 2'-0" | 2'-0" | 18" | 20.0 | 2 | 5/8" |
| 10" | 2'-6" | 2'-6" | 24" | 37.5 | 2 | 3/4" |
| 12" | 2'-9" | 2'-9" | 24" | 44.0 | 4 | 3/4" |

*VOL. = Approx. Volume of Blocking Material Required in cu. ft.
 RODS: A36 STEEL MINIMUM



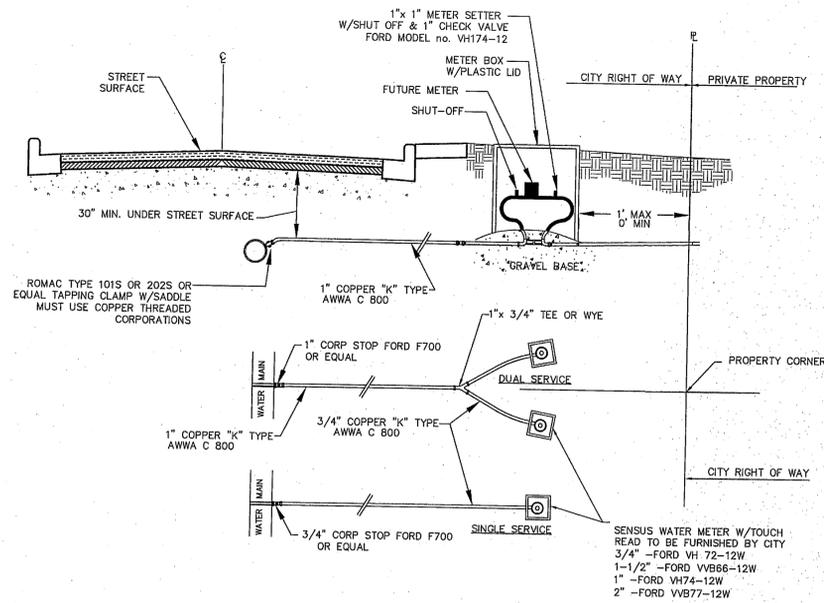
| SIZE | LENGTH | 11 1/4" | 22 1/2" | 45" | 90" |
|------|--------|---------|---------|-------|-------|
| 6" | 12" | 1'-0" | 1'-0" | 1'-0" | 1'-6" |
| 8" | 12" | 1'-3" | 1'-3" | 1'-3" | 1'-9" |
| 10" | 12" | 1'-6" | 1'-6" | 1'-6" | 2'-0" |
| 12" | 18" | 2'-0" | 2'-0" | 2'-0" | 2'-6" |

VOL. = Approx. Volume of Blocking Material Required in cu. ft.



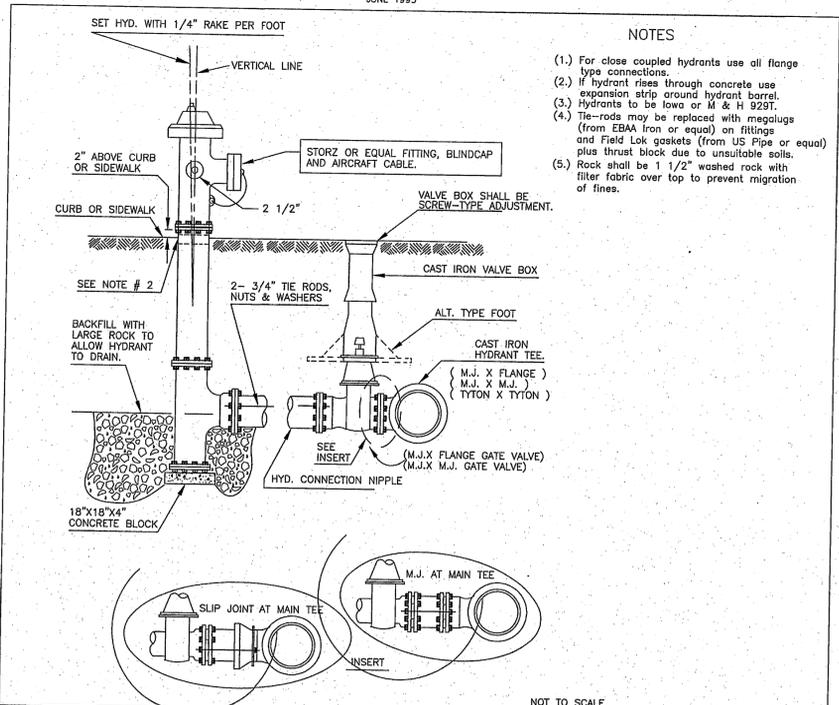
APPROVED _____ DATE _____
 Public Works Director
 CITY OF FERDALE
 NO. 1 METER BOX
 FOG TITE
 DRAWING
 W-6

THRUST BLOCKING



WATER SERVICE CONNECTION DETAIL

NTS



NOTES

- For close coupled hydrants use all flange type connections.
- If hydrant rises through concrete use expansion strip around hydrant barrel.
- Hydrants to be low or M & H 929T.
- Tie-rods may be replaced with megalugs (from EBAA iron or equal) on fittings and Field Lok gaskets (from US Pipe or equal) plus thrust block due to unsuitable soils.
- Rock shall be 1 1/2" washed rock with filter fabric over top to prevent migration of fines.

APPROVED _____ DATE _____
 Public Works Director
 CITY OF FERDALE
 FIRE HYDRANT ASSEMBLY
 DRAWING
 W-1



DESIGNED BY
 DRAWN BY
 CHECKED BY

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REICHHARDT & EBE
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 CONSULTING ENGINEERS

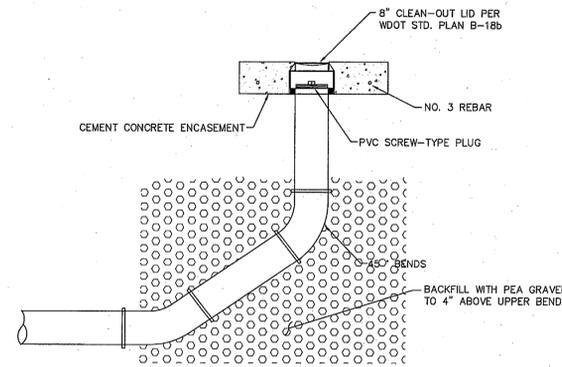
PO Box 978 423 Front St., Ste 201
 Lynden, Washington 98284

Ph (360) 354-3687
 Fax (360) 354-0407

CITY OF FERDALE
 2095 MAIN STREET
 FERDALE, WA 98248

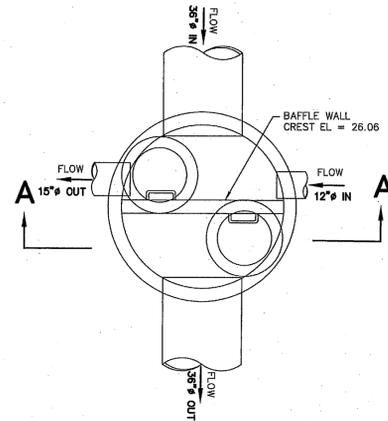
2ND AVENUE
 STREET IMPROVEMENTS
 DETAIL SHEET

| | | | | |
|------------|-------|-------|-------|----------|
| JOB# / DWG | 07038 | DET | DATE | 7-8-09 |
| SCALE | H/N/A | V/N/A | SHEET | 62 of 72 |



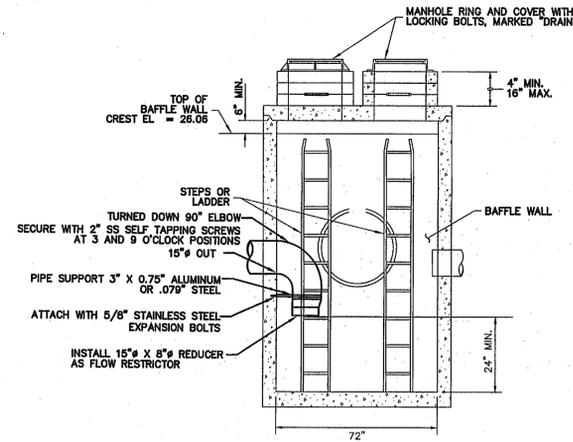
8" SANITARY SEWER CLEAN-OUT DETAIL

NTS



PLAN VIEW

NTS

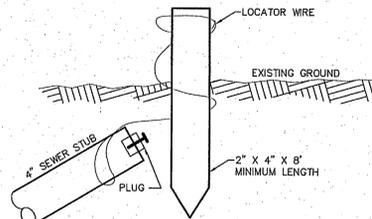


SECTION A-A

NTS

**FLOW SPLITTER AT
WILLARD AVE NEAR PORTAL WAY**

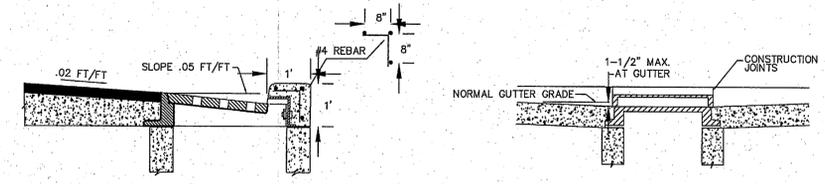
NTS



SEWER SERVICE STAKE

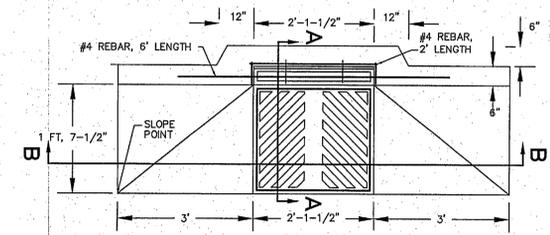
NTS

NOTE:
STAKE SHALL BE PAINTED
GREEN WITH DEPTH TO
INVERT LABELED IN
WHITE PAINT.



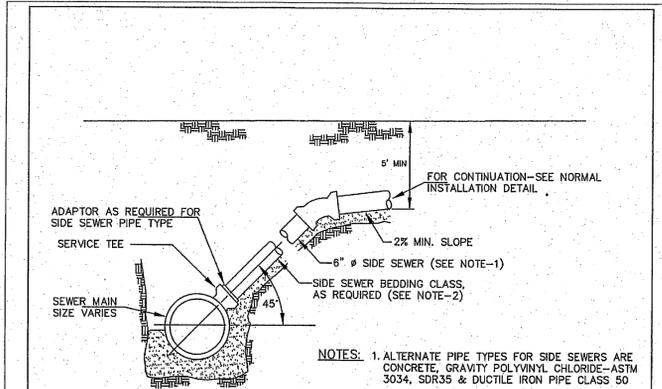
SECTION A-A

SECTION B-B



THRU CURB INLET DETAIL

NTS



**NORMAL INSTALLATION
18" AND LARGER MAINS**

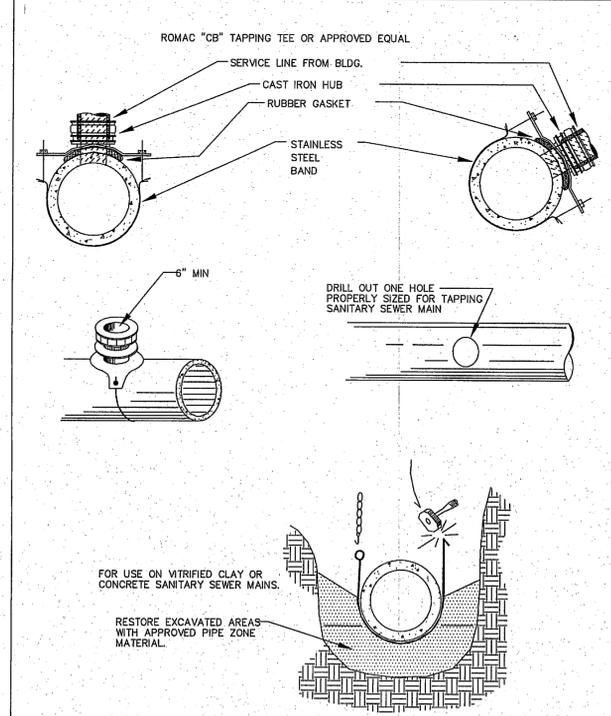
NOT TO SCALE

SIDE SEWER

NOTES:
1. ALTERNATE PIPE TYPES FOR SIDE SEWERS ARE
CONCRETE, GRAVITY POLYVINYL CHLORIDE-ASTM
3034, SDR35 & DUCTILE IRON PIPE CLASS 50
2. BEDDING FOR CONCRETE SHALL BE CLASS-B
BEDDING FOR POLYVINYL SHALL BE CLASS-B
BEDDING FOR DUCTILE IRON SHALL BE CLASS-B

| | | |
|-----------------------|---|-----------------|
| APPROVED | CITY OF FERNDALE NORMAL SANITARY SEWER SERVICE INSTALLATION 18" AND LARGER MAINS | DRAWING SS-7 |
| Public Works Director | Date | |

JUNE 1995



FOR USE ON VITRIFIED CLAY OR
CONCRETE SANITARY SEWER MAINS.

RESTORE EXCAVATED AREAS
WITH APPROVED PIPE ZONE
MATERIAL.

NOT TO SCALE

| | | |
|-----------------------|--|------------------|
| APPROVED | CITY OF FERNDALE SANITARY SEWER BANDED TAPPING TEE | DRAWING SS-12 |
| Public Works Director | Date | |

JULY 2001



DESIGNED BY
DRAWN BY
CHECKED BY

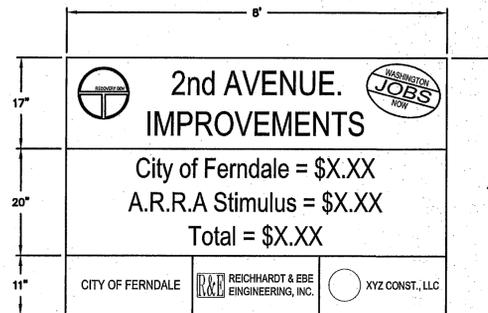
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REICHHARDT & EBE
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PO Box 978 423 Front St., Ste 201
Lynden, Washington 98254
Ph (360) 354-3687
Fax (360) 354-0407

| NO. | DATE | REVISION | BY |
|-----|------|----------|----|
| | | | |

CITY OF FERNDALE
2095 MAIN STREET
FERNDALE, WA 98248

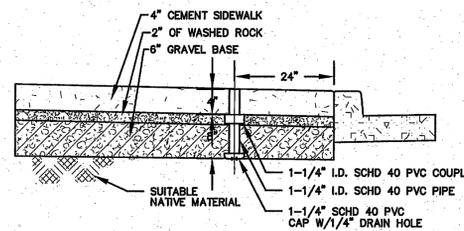
**2ND AVENUE
STREET IMPROVEMENTS
DETAIL SHEET**

| | |
|-------------|----------|
| JOB# / DWG | DATE |
| 07038 DET | 7-8-09 |
| SCALE | SHEET |
| H:N/A v:N/A | 63 of 72 |



PROPOSED A.R.R.A. SIGN

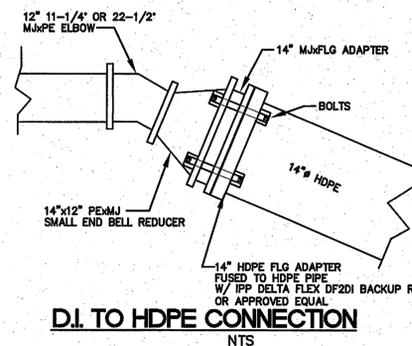
NTS



- NOTES:
1. CONTRACTOR TO INSTALL SLEEVES AS PART OF CONTRACT.
 2. SLEEVE SHALL BE FLUSH TO SIDEWALK SURFACE AND PLUMB.
 3. SEE FLAG SLEEVE PLACEMENT SCHEDULE IN SPECIFICATIONS FOR LOCATIONS.

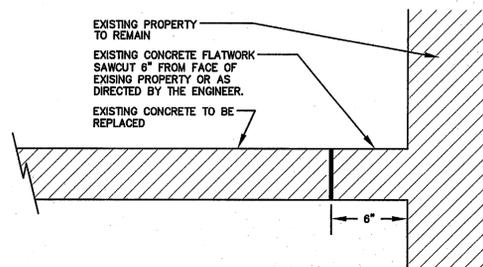
FLAG SLEEVE DETAIL

NTS



D.I. TO HDPE CONNECTION

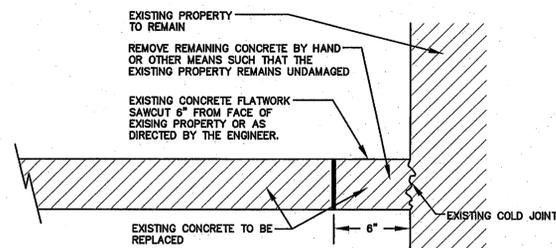
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SAWCUT DETAIL WHERE EXISTING PROPERTY TO REMAIN

DETAIL 'A'

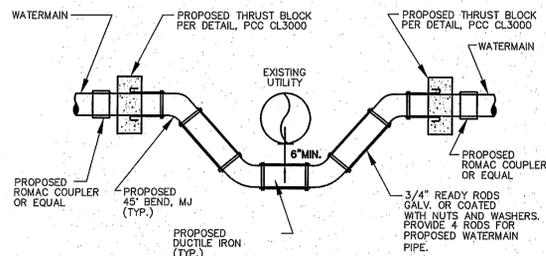
NTS



REMOVAL DETAIL WHERE ALL EXISTING FLATWORK REMOVED

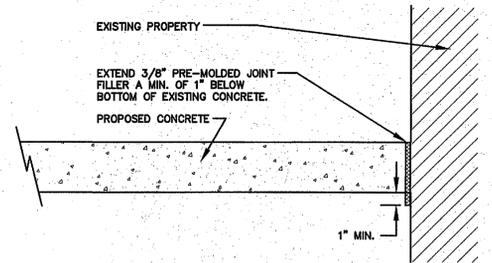
DETAIL 'B'

NTS



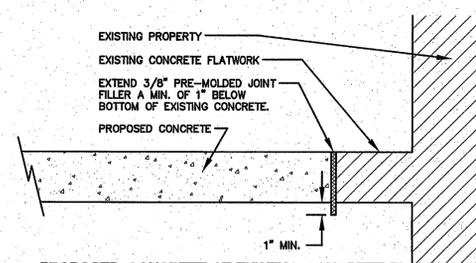
WATERMAIN STOVEPIPE

NTS



PROPOSED CONCRETE WHERE ALL EXISTING FLATWORK REMOVED

NTS



PROPOSED CONCRETE AT EXISTING CONCRETE FLATWORK WHERE EXISTING PROPERTY TO REMAIN

NTS



DESIGNED BY
DRAWN BY
CHECKED BY



REICHHARDT & EBE
ENGINEERING, INC.
CONSULTING ENGINEERS

PO Box 978 423 Front St., Ste 201 Ph (360) 354-3687
Lynden, Washington 98264 Fax (360) 354-0407

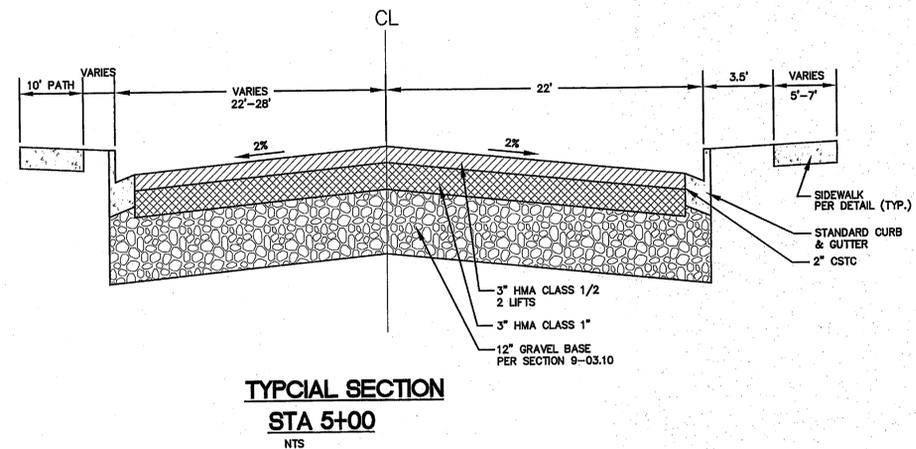
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CITY OF FERDALE
2095 MAIN STREET
FERDALE, WA 98248

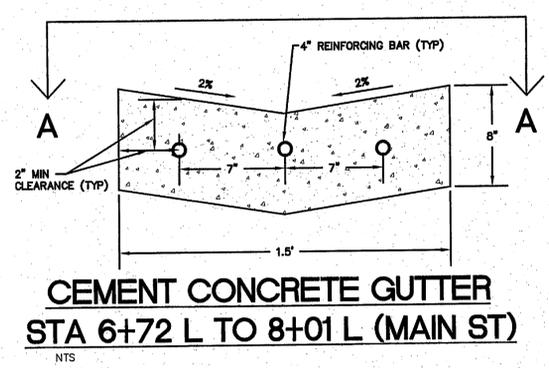
2ND AVENUE
STREET IMPROVEMENTS
DETAIL SHEET

JOB# / DWG
07038 DET
SCALE
H: N/A v: N/A

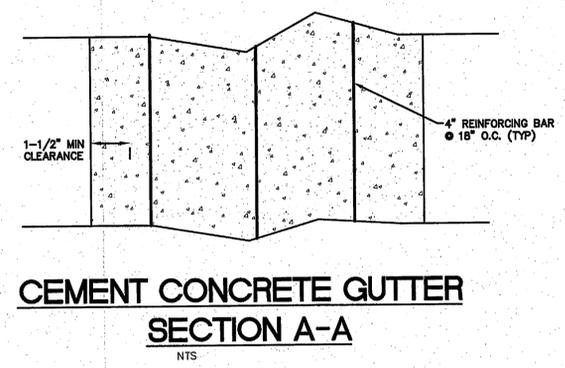
DATE
7-8-09
SHEET
64 of 72



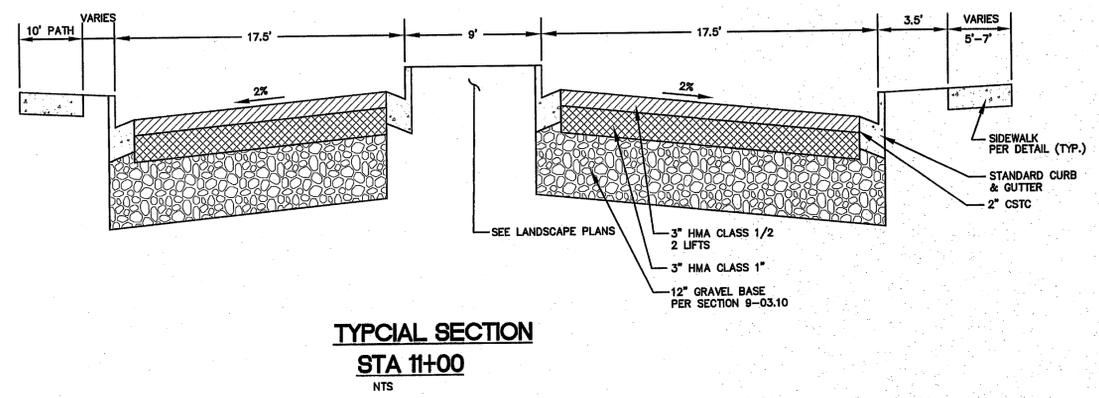
**TYPICAL SECTION
STA 5+00**
NTS



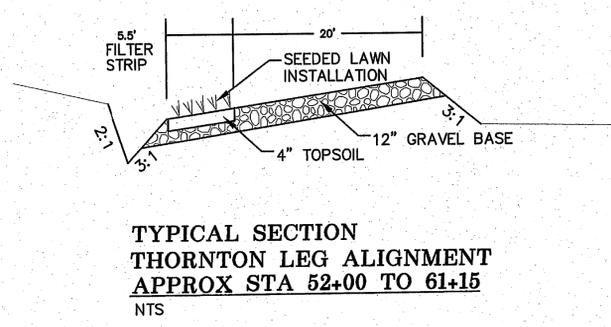
**CEMENT CONCRETE GUTTER
STA 6+72 L TO 8+01 L (MAIN ST)**
NTS



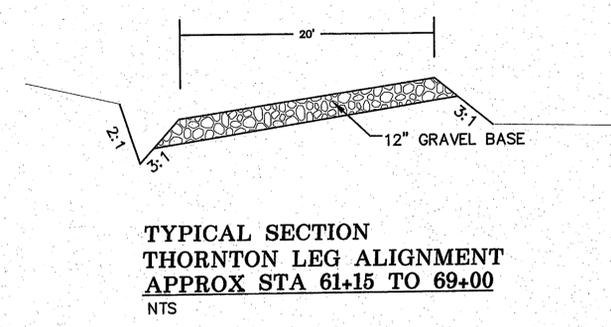
**CEMENT CONCRETE GUTTER
SECTION A-A**
NTS



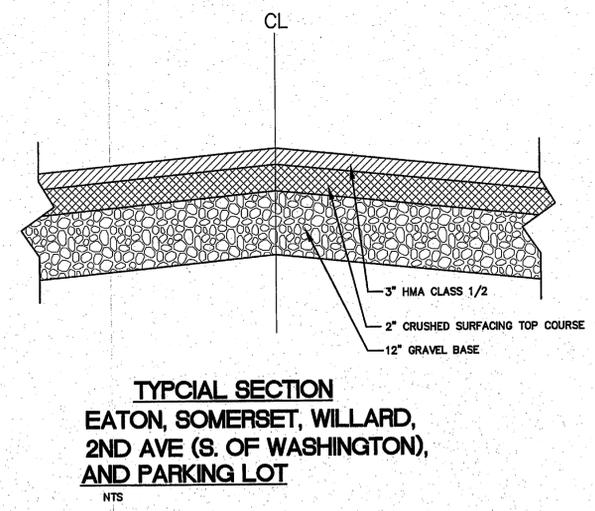
**TYPICAL SECTION
STA 11+00**
NTS



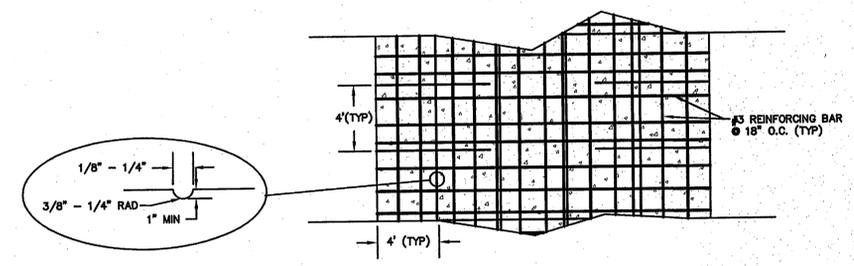
**TYPICAL SECTION
THORNTON LEG ALIGNMENT
APPROX STA 52+00 TO 61+15**
NTS



**TYPICAL SECTION
THORNTON LEG ALIGNMENT
APPROX STA 61+15 TO 69+00**
NTS



**TYPICAL SECTION
EATON, SOMERSET, WILLARD,
2ND AVE (S. OF WASHINGTON),
AND PARKING LOT**
NTS

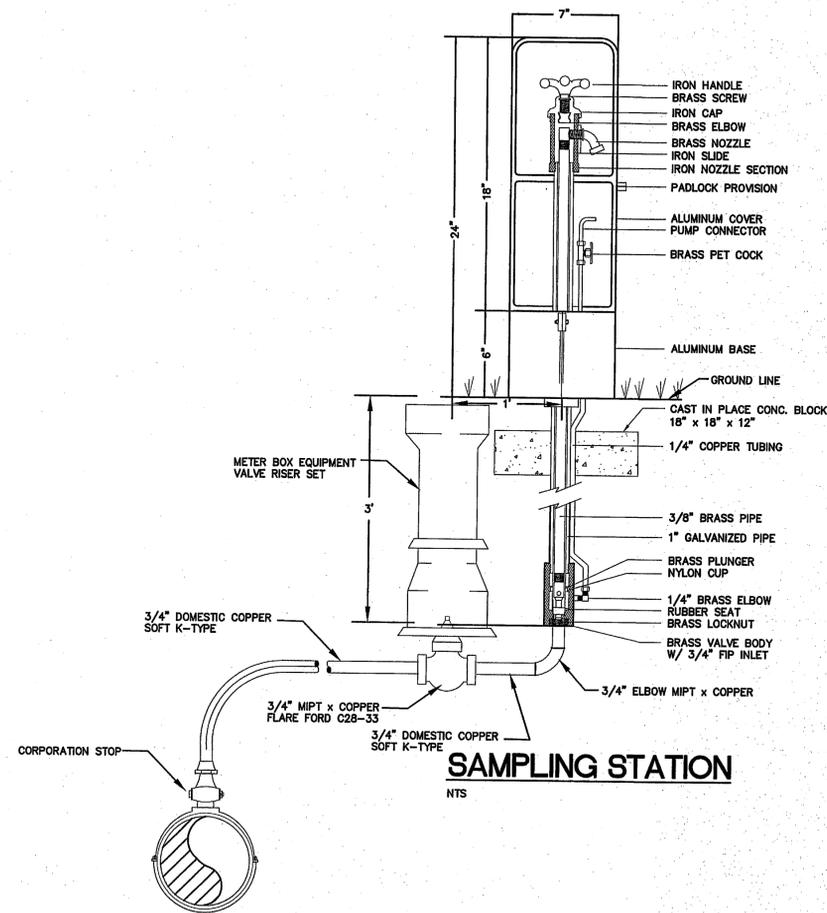


**TEXTURED DRIVEWAY
APPROX STA 2+83, 31'R TO 3+23, 30.56'R**
NTS

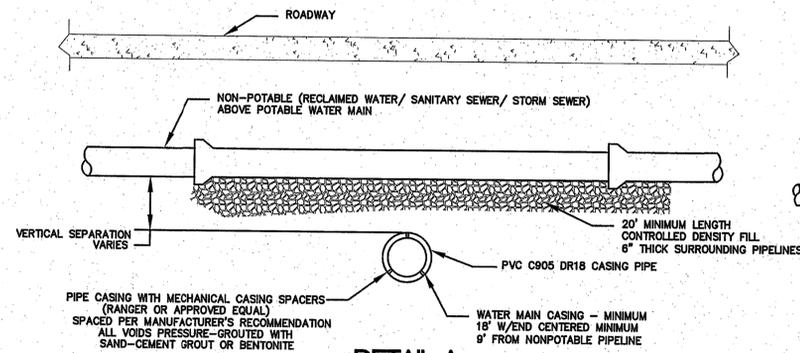


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|-------------|--|-----|------|----------|----|--|---|------------|-------|-------|-------|----------|--|
| DESIGNED BY | REICHHARDT & EBE ENGINEERING, INC. CONSULTING ENGINEERS PO Box 978 423 Front St., Ste 201 Ph (360) 354-3887 Lynden, Washington 98264 Fax (360) 354-0407 | NO. | DATE | REVISION | BY | CITY OF FERDALE 2095 MAIN STREET FERDALE, WA 98248 | 2ND AVENUE STREET IMPROVEMENTS DETAIL SHEET | JOB# / DWG | 07038 | DET | DATE | 7-8-09 | |
| DRAWN BY | | MLK | | | | | | SCALE | H:N/A | V:N/A | SHEET | 67 of 72 | |
| CHECKED BY | | | | | | | | | | | | | |

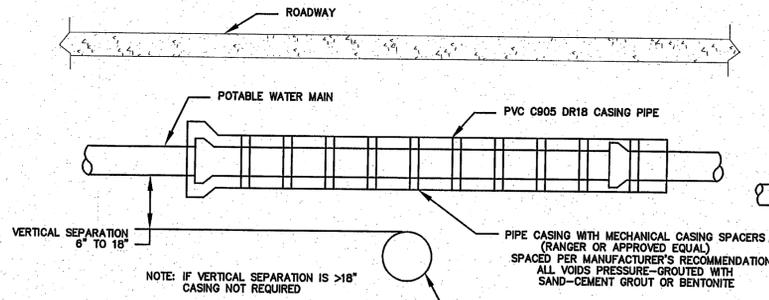
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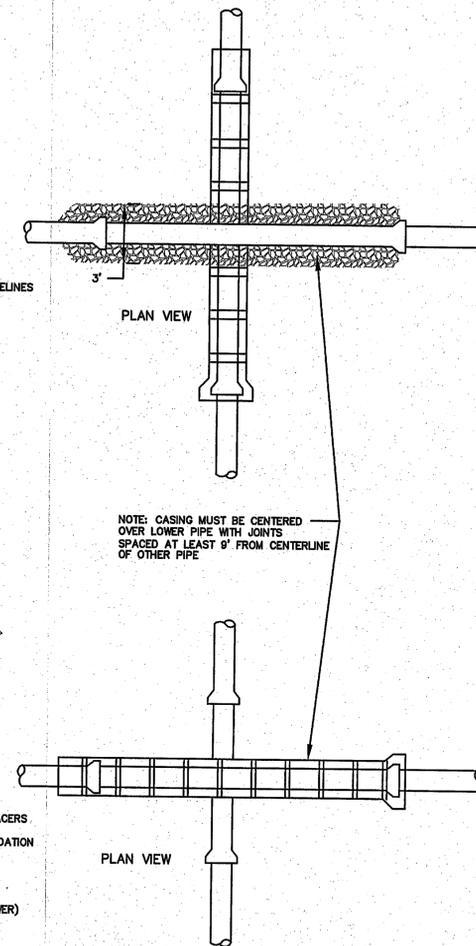
SAMPLING STATION
NTS



DETAIL A
NONPOTABLE PIPELINE
ABOVE POTABLE WATER MAIN
PIPE SEPARATION DETAIL
NTS



DETAIL B
POTABLE WATER MAIN
ABOVE NONPOTABLE PIPELINE
PIPE SEPARATION DETAIL
NTS



NOTE: CASING MUST BE CENTERED OVER LOWER PIPE WITH JOINTS SPACED AT LEAST 9\"/>



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ENGINEERING, INC.
CONSULTING ENGINEERS
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Lynden, Washington 98264 Fax (360) 364-0407

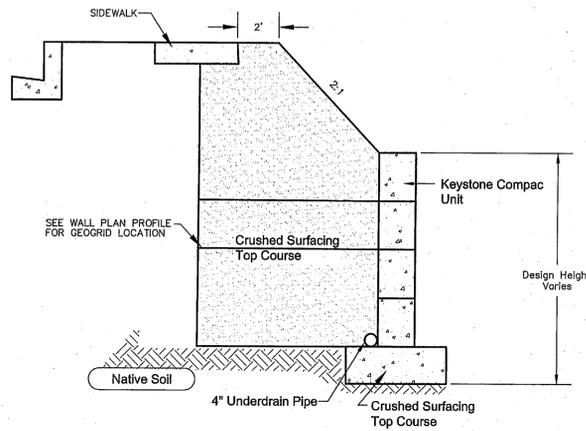
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CITY OF FERNDALE
2095 MAIN STREET
FERNDALE, WA 98248

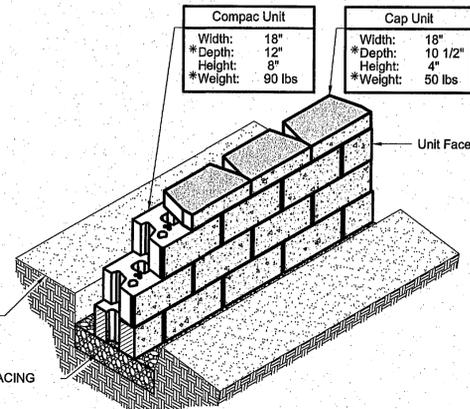
2ND AVENUE
STREET IMPROVEMENTS
DETAIL SHEET

JOB# / DWG
07038 DET
SCALE
H: N/A v: N/A

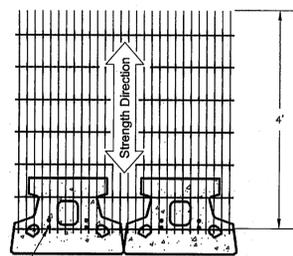
DATE
7-8-09
SHEET
68 of 72



Typical Reinforced Wall Section
Compac Unit

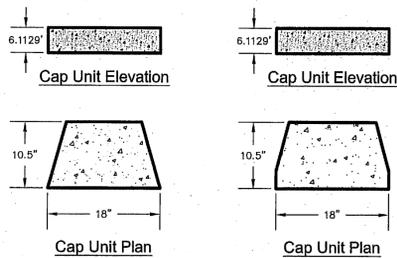


Compac Unit/Base Pad Isometric Section View
* Dimensions & Weight May Vary by Region



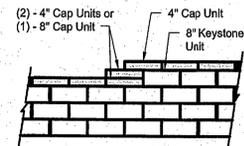
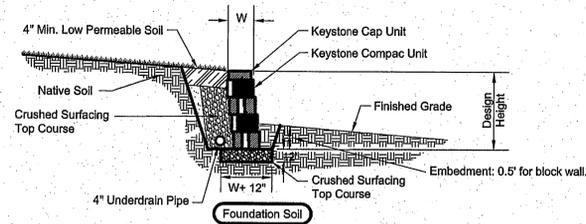
Geogrid is to be Placed on Level Backfill and Extended Over the 1/2" x 5-1/4" Fiberglass Pins. Place Next Unit. Pull Grid Tight and Backfill. Stake as required.

Grid & Pin Connection



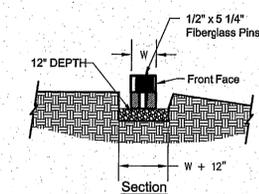
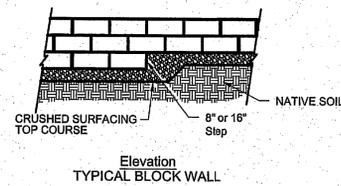
Universal Cap Unit Option
* Dimensions & Availability Will Vary by Region

Straight Split Cap Unit Option
* Dimensions & Availability Will Vary by Region



Note:
1. Secure all cap units with Keystone Kapseal or equal.

Top of Block Wall Steps

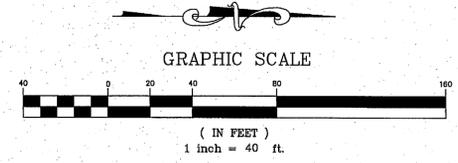
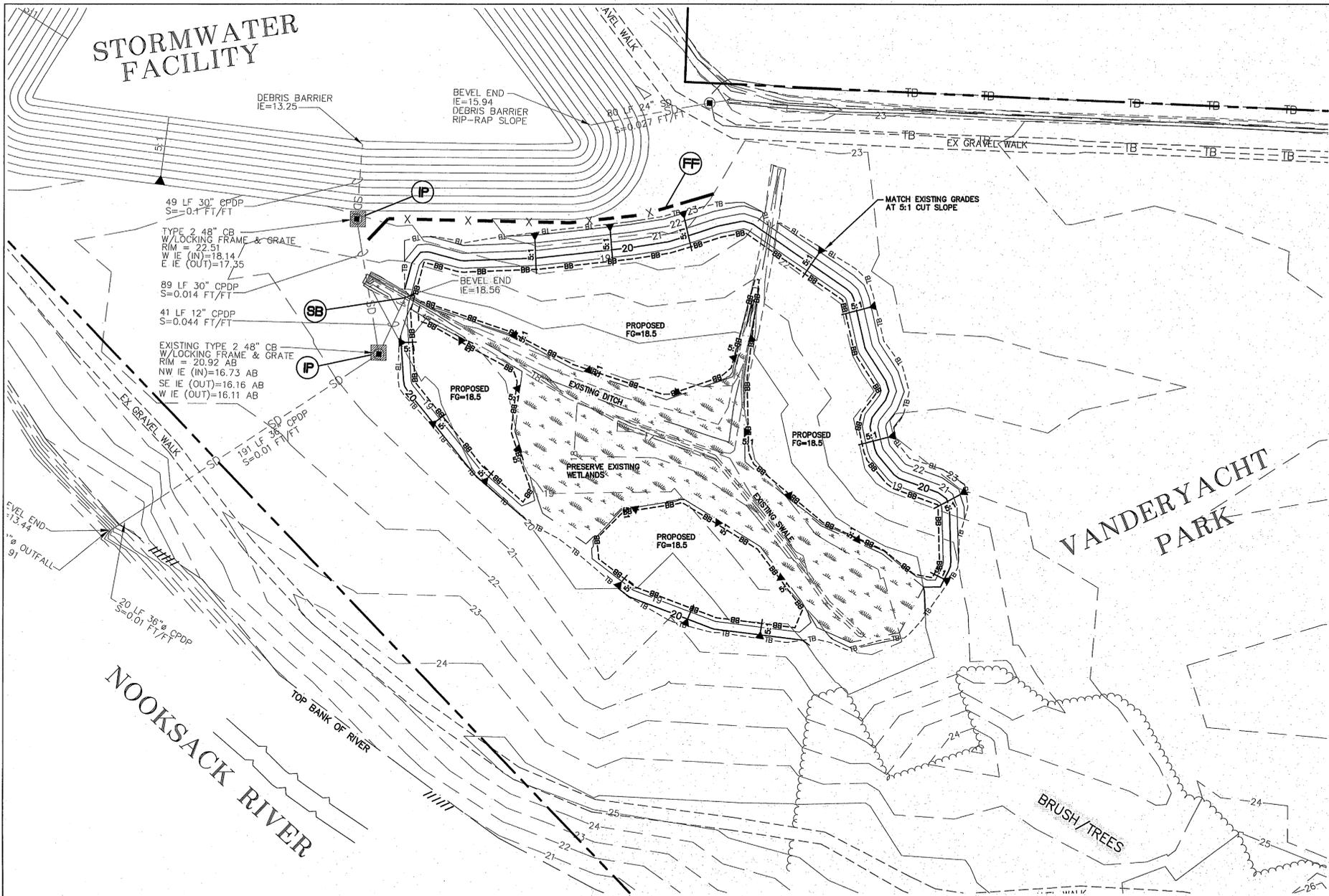


TYPICAL BLOCK WALL
NTS

**ALTERNATE A2
BLOCK WALL RETAINING WALL**

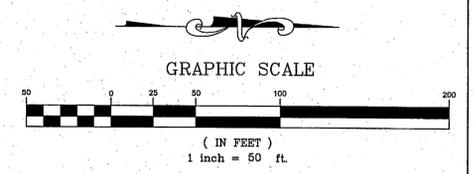
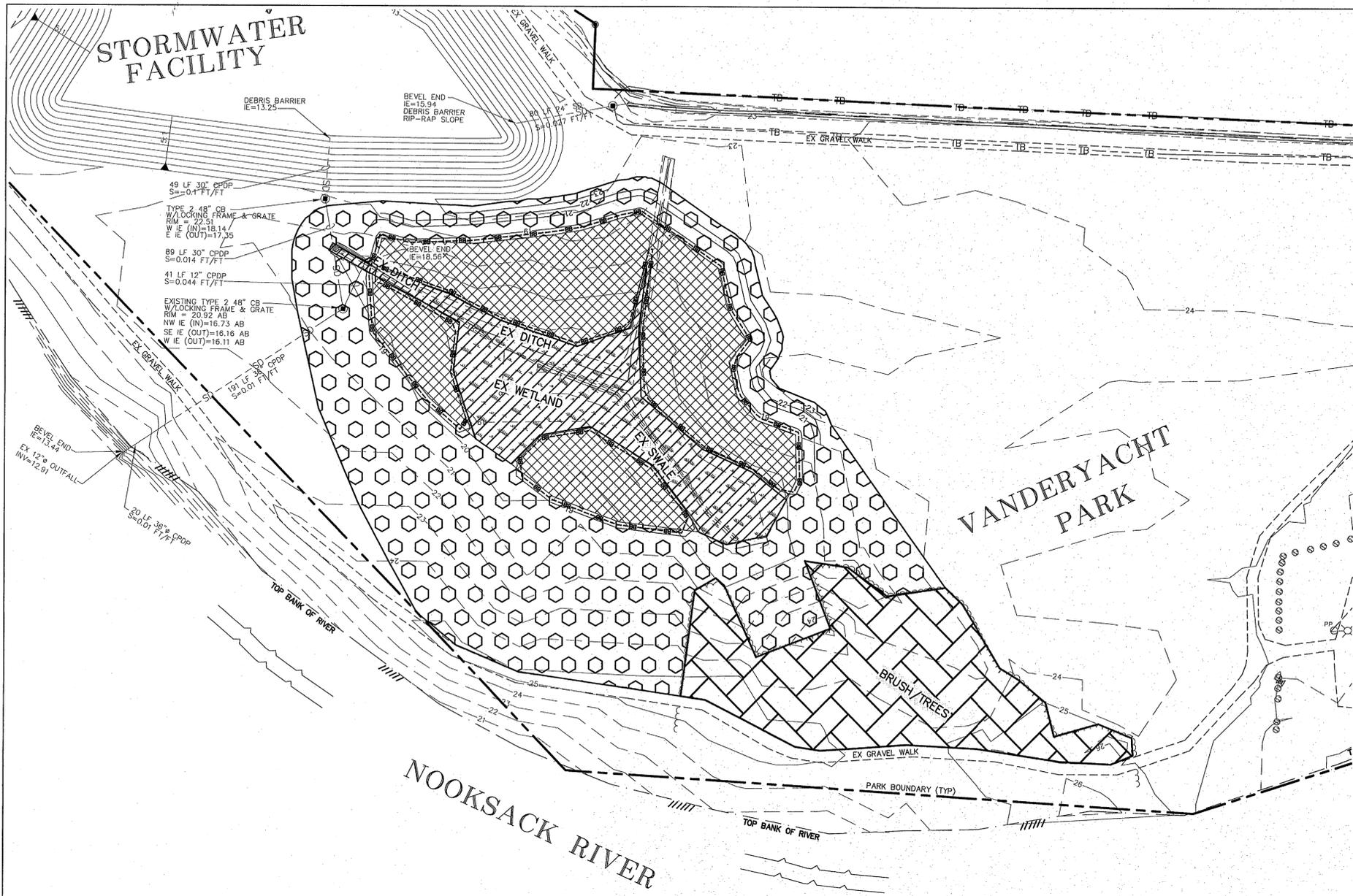


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|-------------|----------------|--|---|-----|-------|---------------|-------|--|---|------------|-----------|------|--------|
| DESIGNED BY | R&E | REICHHARDT & EBE ENGINEERING, INC. CONSULTING ENGINEERS PO Box 978 423 Front St., Ste 201 Lynden, Washington 98264 | Ph (360) 354-3687 Fax (360) 354-0407 | NO. | DATE | REVISION | BY | CITY OF FERDALE 2095 MAIN STREET FERDALE, WA 98248 | 2ND AVENUE STREET IMPROVEMENTS DETAIL SHEET | JOB# / DWG | 07038 DET | DATE | 7-8-09 |
| DRAWN BY | | | | MLK | SCALE | H: N/A v: N/A | SHEET | | | 69 of 72 | | | |
| CHECKED BY | | | | | | | | | | | | | |

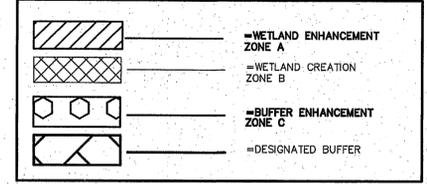


| | | | | | | | |
|-----------------|--|--|------|---|----|-----------------------------------|-----------------|
| DESIGNED BY |  REICHHARDT & EBE ENGINEERING, INC. CONSULTING ENGINEERS PO Box 978 423 Front St., Ste 201 Ph (360) 354-3687 Lynden, Washington 98264 Fax (360) 354-0407 | CITY OF FERDALE 2095 MAIN STREET FERDALE, WA 98248 | | 2ND AVENUE STREET IMPROVEMENTS WETLAND GRADING AND EROSION CONTROL PLAN | | JOB# / DWG 07038 MIT.ST.02.WLM | DATE 7-8-09 |
| DRAWN BY LMC | | NO. | DATE | REVISION | BY | SCALE H:1"=40' v:N/A | SHEET |
| CHECKED BY | | | | | | | 70 of 72 |

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LEGEND



| | | | | | | | | | | | |
|-------------|----------------|---|---|---------------------|--------|----------|----|--|--|--------------------|----------|
| DESIGNED BY | R&E | REICHHARDT & EBE ENGINEERING, INC. CONSULTING ENGINEERS PO Box 978 423 Front St., Ste 201 Lynden, Washington 98264 | Ph (360) 354-3687 Fax (360) 354-0407 | NO. | DATE | REVISION | BY | CITY OF FERDALE 2095 MAIN STREET FERDALE, WA 98248 | 2ND AVENUE STREET IMPROVEMENTS WETLAND PLANTING PLAN | JOB# / DWG | DATE |
| DRAWN BY | | | | 07038 MIT.ST.02.WLM | 7-8-09 | | | | | | |
| CHECKED BY | | | | SCALE | SHEET | | | | | | |
| | | | | | | | | | | H: 1" = 50' v: N/A | 71 of 72 |

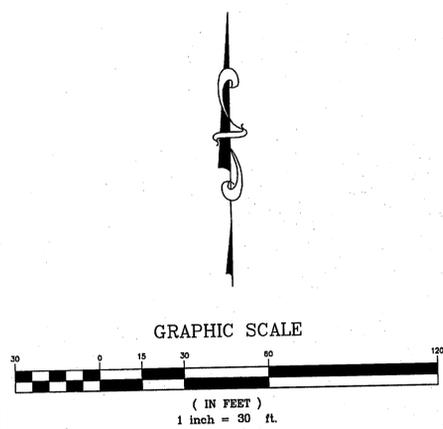
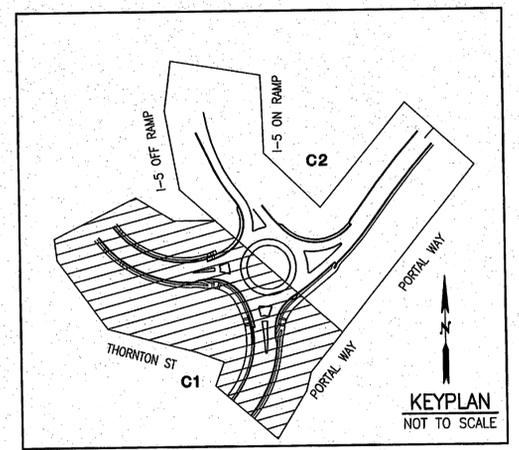
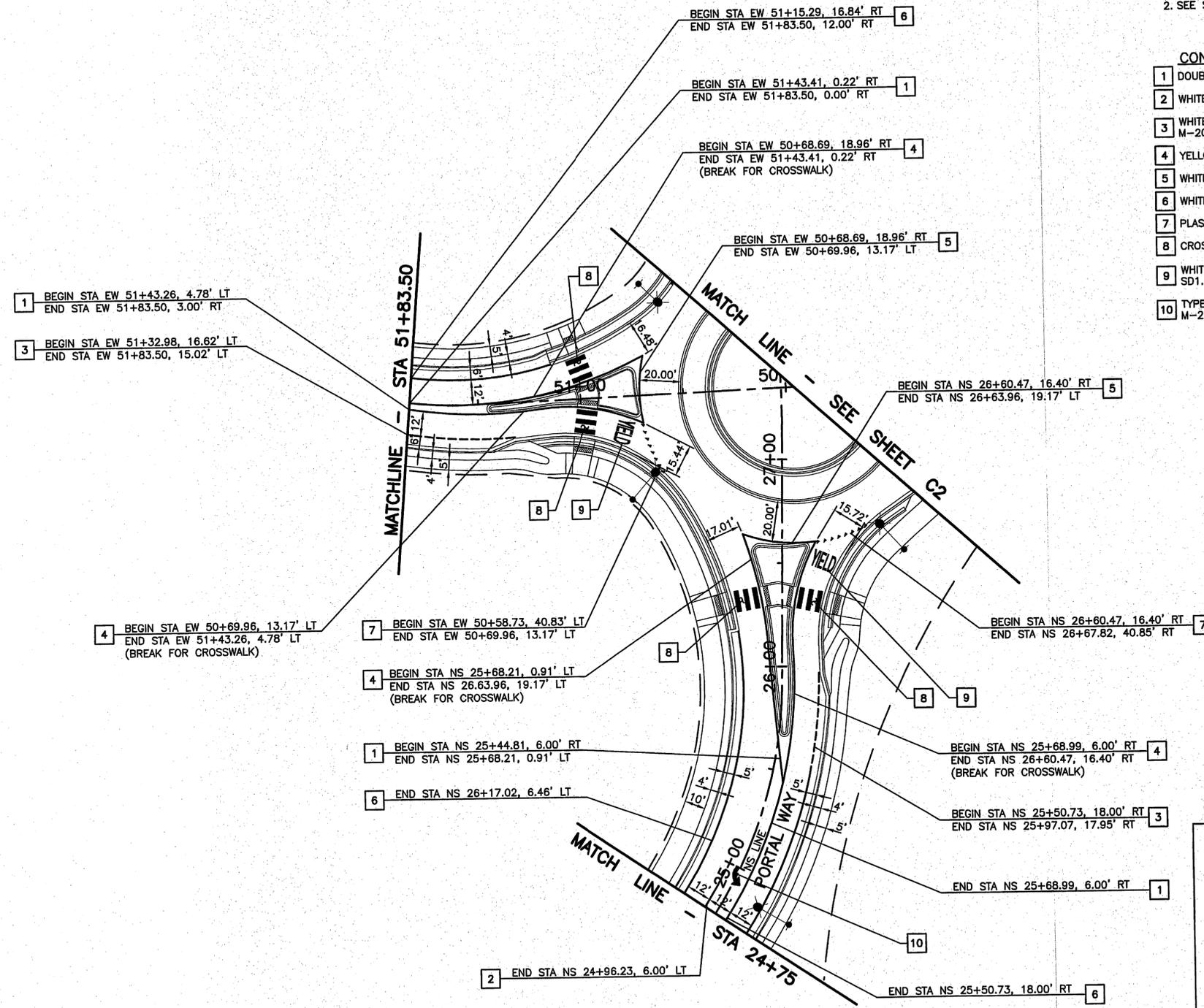
SEC. 20, T. 39 N., R. 2 E., W.M.

GENERAL NOTES:

1. ALL DIMENSIONS ARE TO FACE OF CURB, EDGE OF PAVEMENT, OR CENTER OF STRIPE.
2. SEE SHEET CD1 FOR CHANNELIZATION DETAILS.

CONSTRUCTION NOTES:

- 1 DOUBLE CENTERLINE PER WSDOT STANDARD PLAN M-20.10-01.
- 2 WHITE WIDE LANE LINE PER WSDOT STANDARD PLAN M-20.10-01.
- 3 WHITE DOTTED EXTENSION LINE PER WSDOT STANDARD PLAN M-20.10-01.
- 4 YELLOW EDGE LINE PER WSDOT STANDARD PLAN M-20.10-01.
- 5 WHITE WIDE LINE PER WSDOT STANDARD PLAN M-20.10-01.
- 6 WHITE EDGE LINE PER WSDOT STANDARD PLAN M-20.10-01.
- 7 PLASTIC YIELD LINE PER DETAIL ON SHEET SD1.
- 8 CROSSWALK LINE PER WSDOT STANDARD PLAN M-15.10-01.
- 9 WHITE PLASTIC TRAFFIC LETTERS (YIELD) PER DETAIL ON SHEET SD1.
- 10 TYPE 2SL PLASTIC TRAFFIC ARROW PER WSDOT STANDARD PLAN M-24.40-01.



CALL BEFORE YOU DIG
1-800-424-5555

07/10/2009 9:00am I:\25\2008\008\Ferndale\Design\5606-C1.dwg

| | | | | | | | | | |
|--|--|-------------------|--|--|-------------------------------|--|---|-----------------------|---------------------------------|
| | 728 134th Street SW - Suite 200 Everett, Washington 98204 Ph: 425 741-3800 | DESIGNED BY AR | | REICHHARDT & EBE ENGINEERING, INC. CONSULTING ENGINEERS PO Box 978 423 Front St., Ste 201 Lynden, Washington 98264 Ph (360) 354-3687 Fax (360) 354-0407 | NO. DATE REVISION BY | CITY OF FERNDALE 2095 MAIN STREET FERNDALE, WA 98248 | 2ND AVENUE STREET IMPROVEMENTS CHANNELIZATION PLAN | JOB No 25-2008-006 | DATE 07-08-09 |
| | | DRAWN BY GM | | | | | | CHECKED BY RP | SCALE H: 1" = 30' V: NONE |

SEC. 20, T. 39 N., R. 2 E., W.M.

GENERAL NOTES:

1. ALL DIMENSIONS ARE TO FACE OF CURB, EDGE OF PAVEMENT, OR CENTER OF STRIPE.
2. SEE SHEET CD1 FOR CHANNELIZATION DETAILS.

CONSTRUCTION NOTES:

1. DOUBLE CENTERLINE PER WSDOT STANDARD PLAN M-20.10-01.
2. WHITE WIDE LANE LINE PER WSDOT STANDARD PLAN M-20.10-01.
3. WHITE DOTTED EXTENSION LINE PER WSDOT STANDARD PLAN M-20.10-01.
4. YELLOW EDGE LINE PER WSDOT STANDARD PLAN M-20.10-01.
5. WHITE WIDE LINE PER WSDOT STANDARD PLAN M-20.10-01.
6. WHITE EDGE LINE PER WSDOT STANDARD PLAN M-20.10-01.
7. PLASTIC YIELD LINE PER DETAIL ON SHEET SD1.
8. CROSSWALK LINE PER WSDOT STANDARD PLAN M-15.10-01.
9. WHITE PLASTIC TRAFFIC LETTERS (YIELD) PER DETAIL ON SHEET SD1.
10. TYPE 2SL PLASTIC TRAFFIC ARROW PER WSDOT STANDARD PLAN M-24.40-01.

6 BEGIN STA NS 29+73.35, 22.43' LT
END STA NS 30+62.19, 25.80' LT

4 BEGIN STA NS 28+07.38, 16.53' LT
END STA NS 30+62.19, 9.78' LT

BEGIN STA NS 28+49.58, 22.08' RT
END STA NS 30+59.26, 26.36' RT

BEGIN STA NS 28+04.50, 22.29' RT
END STA NS 30+59.26, 9.71' RT

6 BEGIN STA EW 45+75.96, 12.00' RT
END STA EW 47+50.51, 12.00' RT

BEGIN STA EW 49+21.67, 27.79' RT
END STA EW 49+34.78, 53.47' RT

BEGIN STA EW 48+42.93, 3.45' RT
END STA EW 49+21.67, 27.79' RT

BEGIN STA EW 47+98.08, 0.21' RT
END STA EW 48+42.93, 3.45' RT

5 BEGIN STA NS 28+04.50, 22.29' LT
END STA NS 28+07.38, 16.53' LT

7 BEGIN STA NS 28+00.88, 40.60' LT
END STA NS 28+07.38, 16.53' LT

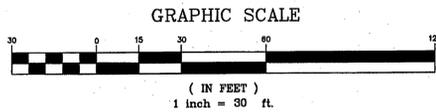
BEGIN STA EW 47+50.51, 12.00' RT
END STA EW 47+00.57, 12.57' RT

BEGIN STA EW 45+75.99, 12.00' LT
END STA EW 48+71.47, 21.53' LT

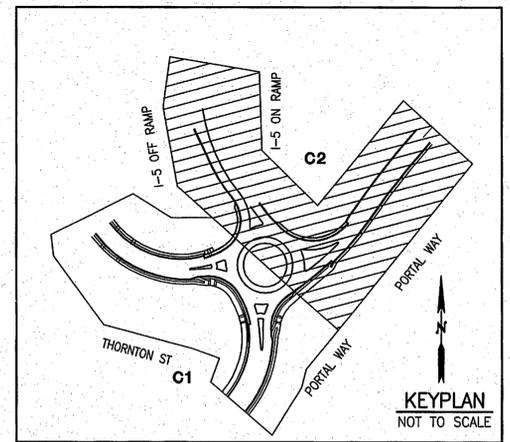
BEGIN STA EW 45+75.99, 0.00' RT
END STA EW 48+42.98, 3.47' LT

BEGIN STA EW 48+42.98, 3.47' LT
END STA EW 49+30.22, 28.25' LT

5 BEGIN STA EW 49+21.67, 27.79' RT
END STA EW 49+30.22, 28.25' LT



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9:03am I:\25\2008\006\Ferndale\Design\5806-C2.dwg

Reid Middleton
728 134th Street SW - Suite 200
Everett, Washington 98204
Ph: 425 741-3800

DESIGNED BY
AR
DRAWN BY
CM
CHECKED BY
RP



REICHHARDT & EBE
ENGINEERING, INC.
CONSULTING ENGINEERS
PO Box 978 423 Front St., Ste 201 Ph (360) 354-3687
Lynden, Washington 98284 Fax (360) 354-0407

| NO. | DATE | REVISION | BY |
|-----|------|----------|----|
| | | | |

CITY OF FERDALE
2095 MAIN STREET
FERDALE, WA 98248

2ND AVENUE
STREET IMPROVEMENTS
CHANNELIZATION PLAN

JOB No
25-2008-006
SCALE
H:1"=30' V:NONE

DATE
07-08-09
SHEET
C2

| BREAKER SCHEDULE | | | | | SAC _____ |
|---|--------------|----------------|------------------|------------|------------|
| TYPE D SERVICE | | | | | 120/240V |
| CIRCUIT | DESCRIPTION | BREAKER RATING | CONTACTOR RATING | VOLTAGE | LOAD (KVA) |
| --- | MAIN | 100 AMP | --- | --- | --- |
| A | ILLUMINATION | 30 AMP | 30 AMP | 240 | 1.5 |
| B | ILLUMINATION | 30 AMP | 30 AMP | 240 | 2.4 |
| C | SPARE | 20 AMP | N/A | 240 | 0.0 |
| D | SPARE | 20 AMP | N/A | 240 | 0.0 |
| H | GFCI | 20 AMP | N/A | 120 | 1.8 |
| J | HEAT STRIP | 15 AMP | N/A | 120 | 0.1 |
| K | PHOTOCELL | 15 AMP | N/A | 120 | 0.001 |
| BUSWORK SHALL BE RATED AT 100 AMP MINIMUM | | | | PEAK | 5.7 |
| | | | | CONTINUOUS | 3.3 |

| ILLUMINATION WIRE SCHEDULE (SERVICE NO. SAC _____) | | | | |
|--|---------------------------|---------|---------|----------------|
| RUN NO. | CONDUCTORS | CONDUIT | CIRCUIT | NOTES |
| 1 | 2-#8 (ILL), 1-#8 (GROUND) | 2" | A | |
| 2 | 2-#8 (ILL), 1-#8 (GROUND) | 2" | B | |
| 3 | 3-#250 KCM (POWER) | 2" | | |
| 4 | 2-#8 (ILL), 1-#8 (GROUND) | 2" | A | |
| | 2-#8 (ILL), 1-#8 (GROUND) | | B | |
| 5 | SPARE | 2" | | FOR FUTURE USE |

ILL = ILLUMINATION

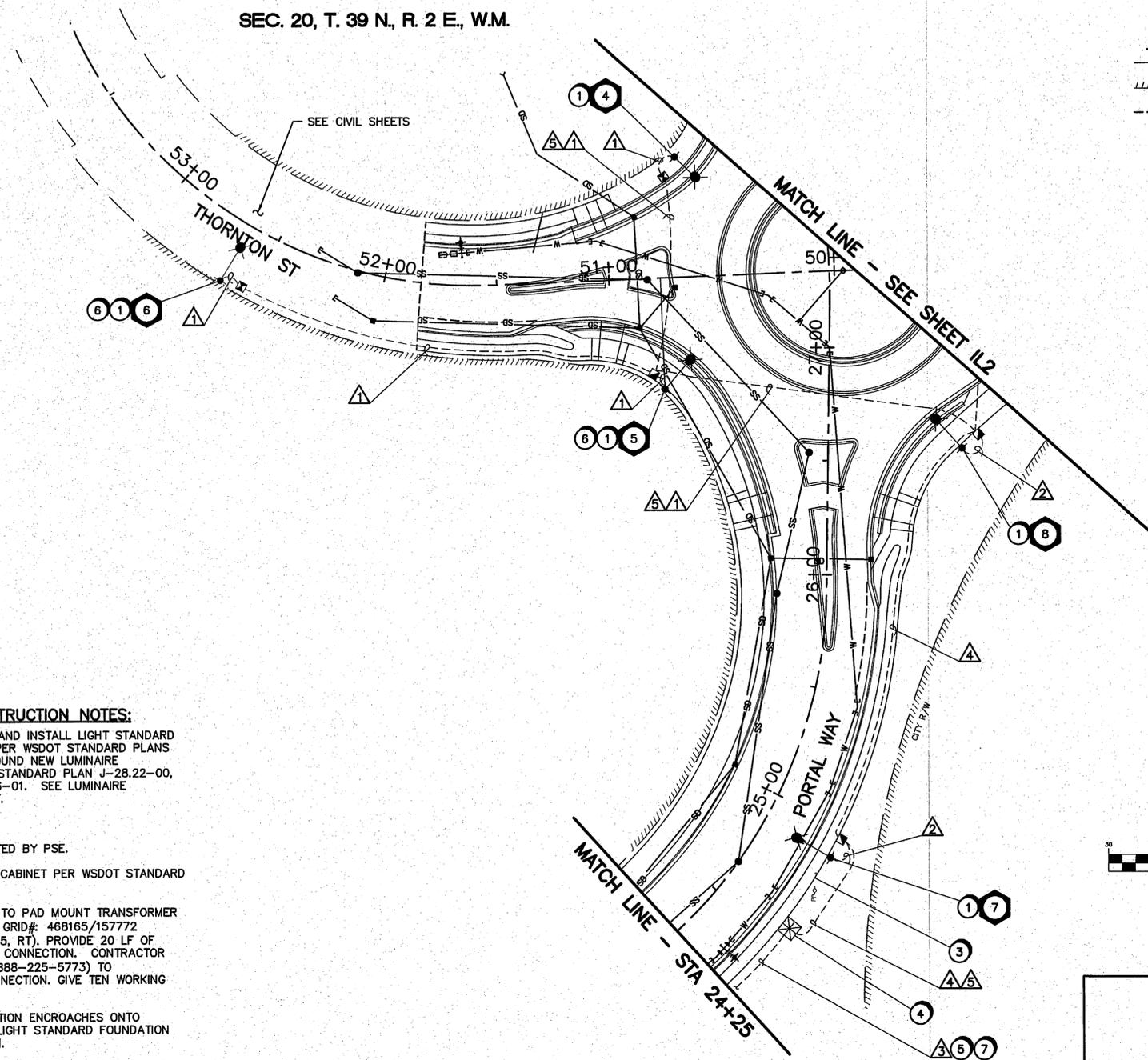
GENERAL ILLUMINATION NOTES:

- LUMINAIRE FOUNDATION LOCATIONS SHALL BE APPROVED BY THE ENGINEER PRIOR TO EXCAVATION.
- CONDUIT RUNS AND JUNCTION BOX LOCATIONS ARE SHOWN IN APPROXIMATE LOCATIONS. FINAL LOCATIONS MAY BE ADJUSTED TO AVOID CONFLICTS AND FOR EASE OF CONSTRUCTION. FINAL LOCATIONS FOR CONDUITS AND JUNCTION BOXES SHALL BE APPROVED BY THE ENGINEER PRIOR TO EXCAVATION.
- CONTRACTOR SHALL COORDINATE ALL PROPOSED ILLUMINATION WORK WITH THE CITY AND PUGET SOUND ENERGY (1-888-225-5773) PRIOR TO COMMENCEMENT OF CONSTRUCTION. THIS WORK INCLUDES BUT IS NOT LIMITED TO: PROPOSED LUMINAIRE LOCATIONS, UTILITY POLE REMOVAL AND RELOCATION, CONDUIT RUNS, JUNCTION BOXES, TRENCHING, AND SERVICE CONNECTION.
- CONDUIT SHALL BE SCHEDULE 40 PVC. CONDUIT CROSSING ROADWAYS AND DRIVEWAYS SHALL BE SCHEDULE 80 PVC.
- FOR ILLUMINATION WIRE SCHEDULE AND BREAKER SCHEDULE, SEE SHEET IL1.
- LIGHT STANDARD FOUNDATIONS SHALL BE PER WSDOT STANDARD PLAN J-28.30-00. SEE LUMINAIRE SCHEDULE THIS SHEET.
- LUMINAIRES SHALL BE HIGH-PRESSURE SODIUM (HPS) TYPE III MEDIUM CUT-OFF (MC II).

ILLUMINATION CONSTRUCTION NOTES:

- CONSTRUCT FOUNDATION AND INSTALL LIGHT STANDARD WITH TYPE 1 MAST ARM PER WSDOT STANDARD PLANS J-28.10-00. GRADE AROUND NEW LUMINAIRE FOUNDATION PER WSDOT STANDARD PLAN J-28.22-00, J-28.24-00 AND J-28.26-01. SEE LUMINAIRE SCHEDULE ON THIS SHEET.
- NOT USED THIS SHEET.
- GUY WIRE TO BE RELOCATED BY PSE.
- INSTALL TYPE D SERVICE CABINET PER WSDOT STANDARD PLAN J-3c.
- EXTEND 2" CONDUIT RUN TO PAD MOUNT TRANSFORMER NEAR JUNCTION BOX PSE GRID#: 468165/157772 (APPROXIMATE STA. 22+25, RT). PROVIDE 20 LF OF EXTRA WIRE FOR SERVICE CONNECTION. CONTRACTOR SHALL CONTACT PSE (1-888-225-5773) TO COORDINATE SERVICE CONNECTION. GIVE TEN WORKING DAYS ADVANCE NOTICE.
- LIGHT STANDARD FOUNDATION ENCLOSES ONTO SIDEWALK. COORDINATE LIGHT STANDARD FOUNDATION WITH SIDEWALK ELEVATION.
- PAD MOUNT TRANSFORMER AND VAULT TO BE INSTALLED AND ENERGIZED FROM JUNCTION BOX, BY PSE.

SEC. 20, T. 39 N., R. 2 E., W.M.

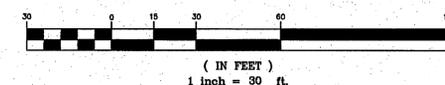


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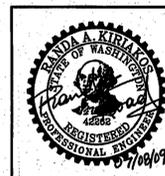
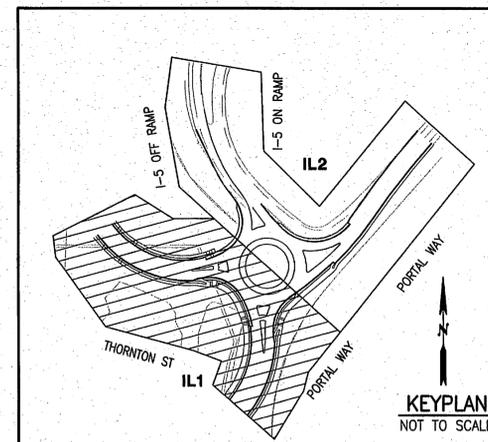
- RIGHT-OF-WAY
- ////// WSDOT LIMITED ACCESS
- ELECTRICAL CONDUIT
- ⊠ TYPE D MODIFIED SERVICE CABINET
- ⊕ EXISTING LIGHT STANDARD
- ⊕ NEW LIGHT STANDARD WITH TYPE 1 MAST ARM
- ⊠ LOCKING LID JUNCTION BOX TYPE 1 PER WSDOT STANDARD PLAN J-40.10-00
- ⊠ LOCKING LID JUNCTION BOX TYPE 2 PER WSDOT STANDARD PLAN J-40.10-00
- PP-O EXISTING POWER POLE
- EXISTING GUY WIRE



GRAPHIC SCALE



| LUMINAIRE SCHEDULE (SERVICE NO. SAC _____) | | | | | | | | | |
|--|---------|-------------|-----------|---------|----------|-----|-----------|-----------------|-----------------|
| LUM NO. | CIRCUIT | LOCATION | | WATTAGE | MAST ARM | H1 | BASE TYPE | EMBANKMENT TYPE | FOUNDATION TYPE |
| | | STATION | OFFSET | | | | | | |
| 4 | A | EW 50+68.75 | 53.54' RT | 400W | 12' | 50' | SLIP | J | B |
| 5 | A | EW 50+77.24 | 49.69' LT | 400W | 16' | 50' | SLIP | J | B |
| 6 | A | EW 52+63.54 | 27.95' LT | 400W | 16' | 50' | SLIP | J | B |
| 7 | B | NS 24+87.74 | 33.50' RT | 400W | 16' | 50' | SLIP | J | B |
| 8 | B | NS 26+56.39 | 59.34' RT | 400W | 16' | 50' | SLIP | J | B |



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Everett, Washington 98204
Ph: 425 741-3800

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ENGINEERING, INC.
CONSULTING ENGINEERS
PO Box 978 423 Front St., Ste 201 Ph (360) 354-3687
Lynden, Washington 98264 Fax (360) 354-0407

| NO. | DATE | REVISION | BY |
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| | | | |

CITY OF FERDALE
2095 MAIN STREET
FERDALE, WA 98248

2ND AVENUE
STREET IMPROVEMENTS
ILLUMINATION PLAN

| | |
|--------------------------|------------------|
| JOB No 25-2008-006 | DATE 07-08-09 |
| SCALE H:1"=30' v:NONE | SHEET IL1 |

SEC. 20, T. 39 N., R. 2 E., W.M.

LEGEND:

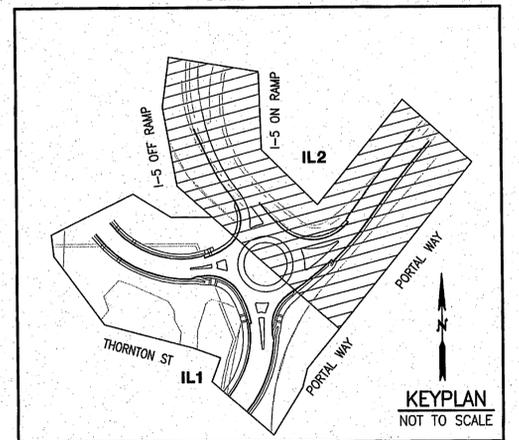
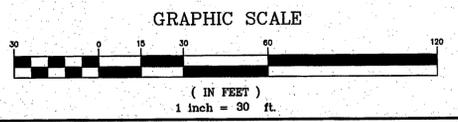
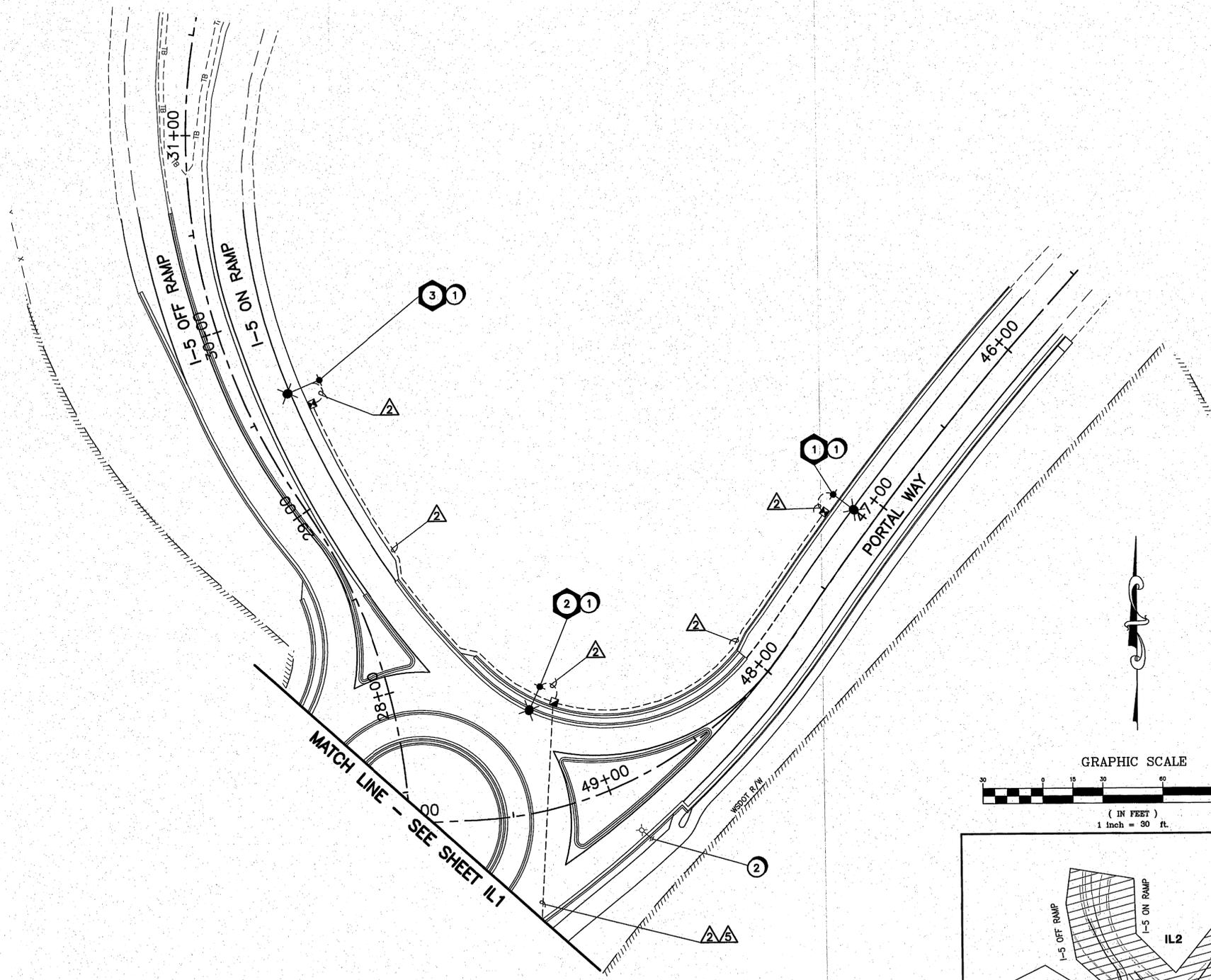
- RIGHT-OF-WAY
- ||||| WSDOT LIMITED ACCESS
- ELECTRICAL CONDUIT
- ⊠ TYPE D MODIFIED SERVICE CABINET
- ⊕ EXISTING LIGHT STANDARD
- ⊕ NEW LIGHT STANDARD WITH TYPE 1 MAST ARM
- ⊠ LOCKING LID JUNCTION BOX TYPE 1 PER WSDOT STANDARD PLAN J-40.10-00
- ⊠ LOCKING LID JUNCTION BOX TYPE 2 PER WSDOT STANDARD PLAN J-40.10-00
- PP-O EXISTING POWER POLE
- EXISTING GUY WIRE

GENERAL ILLUMINATION NOTES:

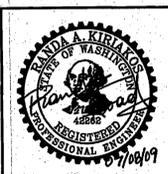
1. LUMINAIRE FOUNDATION LOCATIONS SHALL BE APPROVED BY THE ENGINEER PRIOR TO EXCAVATION.
2. CONDUIT RUNS AND JUNCTION BOX LOCATIONS ARE SHOWN IN APPROXIMATE LOCATIONS. FINAL LOCATIONS MAY BE ADJUSTED TO AVOID CONFLICTS AND FOR EASE OF CONSTRUCTION. FINAL LOCATIONS FOR CONDUITS AND JUNCTION BOXES SHALL BE APPROVED BY THE ENGINEER PRIOR TO EXCAVATION.
3. CONTRACTOR SHALL COORDINATE ALL PROPOSED ILLUMINATION WORK WITH THE CITY AND PUGET SOUND ENERGY (1-888-225-5773) PRIOR TO COMMENCEMENT OF CONSTRUCTION. THIS WORK INCLUDES BUT IS NOT LIMITED TO: PROPOSED LUMINAIRE LOCATIONS, UTILITY POLE REMOVAL AND RELOCATION, CONDUIT RUNS, JUNCTION BOXES, TRENCHING, AND SERVICE CONNECTION.
4. CONDUIT SHALL BE SCHEDULE 40 PVC. CONDUIT CROSSING ROADWAYS AND DRIVEWAYS SHALL BE SCHEDULE 80 PVC.
5. FOR ILLUMINATION WIRE SCHEDULE AND BREAKER SCHEDULE, SEE SHEET IL1.
6. LIGHT STANDARD FOUNDATIONS SHALL BE PER WSDOT STANDARD PLAN J-28.30-00. SEE LUMINAIRE SCHEDULE THIS SHEET.
7. LUMINAIRES SHALL BE HIGH-PRESSURE SODIUM (HPS) TYPE III MEDIUM CUT-OFF (MC III).

ILLUMINATION CONSTRUCTION NOTES:

- ① CONSTRUCT FOUNDATION AND INSTALL LIGHT STANDARD WITH TYPE 1 MAST ARM PER WSDOT STANDARD PLANS J-28.10-00. GRADE AROUND NEW LUMINAIRE FOUNDATION PER WSDOT STANDARD PLAN J-28.22-00, J-28.24-00 AND J-28.26-01. SEE LUMINAIRE SCHEDULE ON THIS SHEET.
- ② REMOVE EXISTING LUMINAIRE, POLE, AND FOUNDATION. REMOVE ENTIRE FOUNDATION UNLESS DIRECTED OTHERWISE BY ENGINEER.
- ③ NOT USED THIS SHEET.
- ④ NOT USED THIS SHEET.
- ⑤ NOT USED THIS SHEET.
- ⑥ NOT USED THIS SHEET.
- ⑦ NOT USED THIS SHEET.



| LUMINAIRE SCHEDULE (SERVICE NO. SAC. _____) | | | | | | | | | |
|---|---------|-------------|-----------|---------|----------|-----|-----------|-----------------|-----------------|
| LUM NO. | CIRCUIT | LOCATION | | WATTAGE | MAST ARM | H1 | BASE TYPE | EMBANKMENT TYPE | FOUNDATION TYPE |
| | | STATION | OFFSET | | | | | | |
| 1 | B | EW 47+09.78 | 24.00' RT | 400W | 12' | 50' | SLIP | E | B |
| 2 | B | EW 49+18.30 | 60.46' RT | 400W | 12' | 50' | SLIP | E | B |
| 3 | B | NS 29+56.31 | 38.96' RT | 400W | 16' | 50' | SLIP | A | B |



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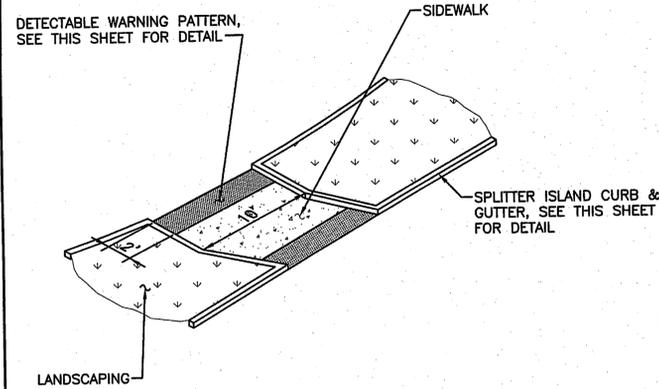
CITY OF FERDALE
2095 MAIN STREET
FERDALE, WA 98248

2ND AVENUE
STREET IMPROVEMENTS
ILLUMINATION PLAN

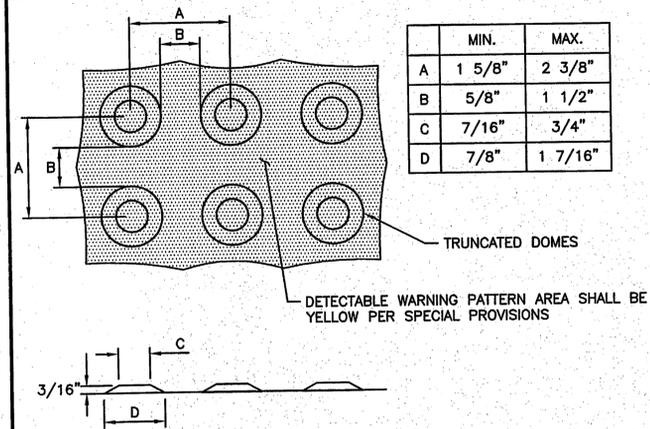
JOB No
25-2008-006
SCALE
H:1" = 30' v: NONE

DATE
07-08-09
SHEET
IL2

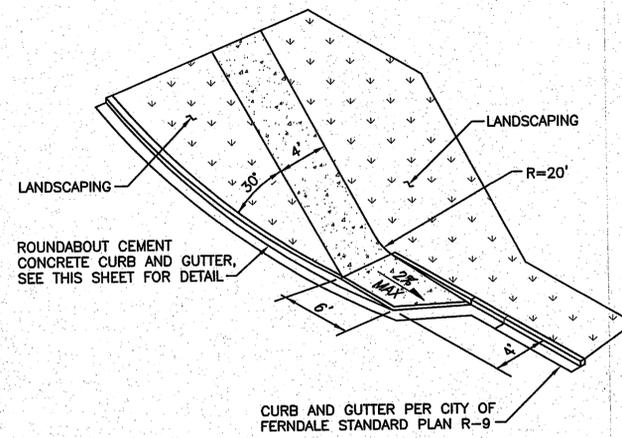
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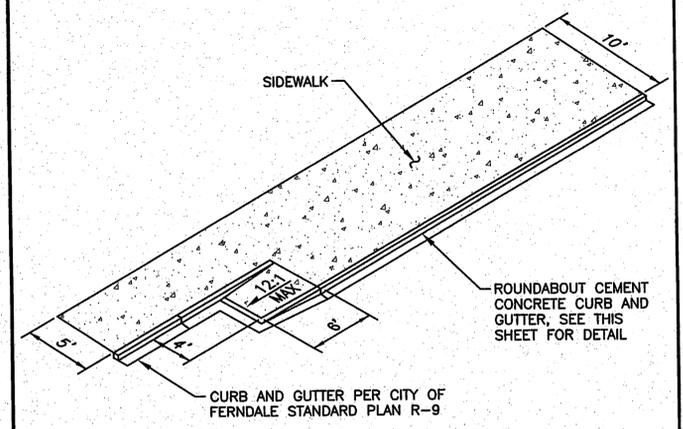
1 **SIDEWALK IN SPLITTER ISLAND**
MD1 NOT TO SCALE



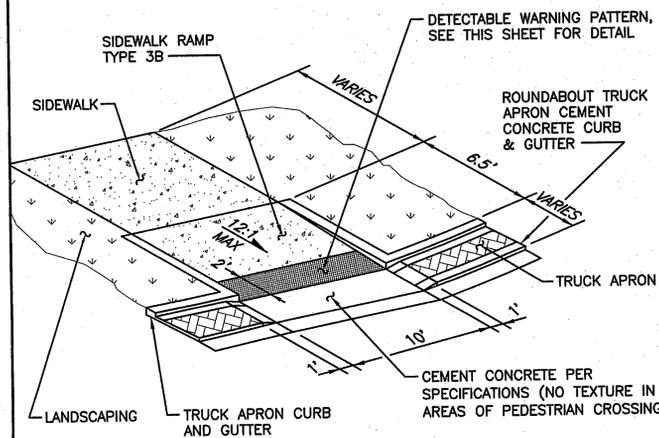
2 **DETECTABLE WARNING PATTERN**
MD1 NOT TO SCALE



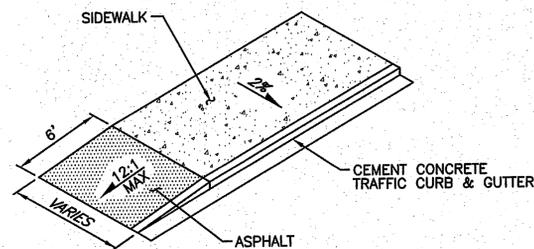
3 **BICYCLE RAMP TYPE 1**
MD1 NOT TO SCALE



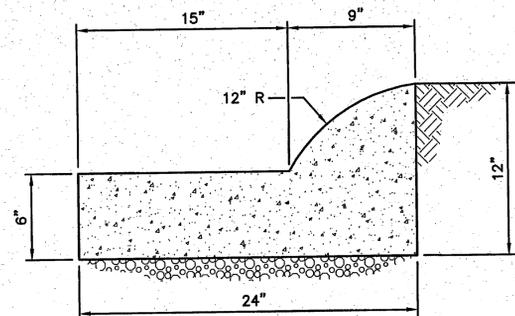
4 **BICYCLE RAMP TYPE 2**
MD1 NOT TO SCALE



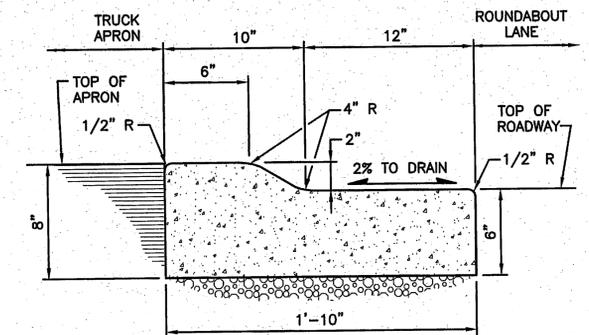
5 **PEDESTRIAN CROSSING IN TRUCK APRON**
MD1 NOT TO SCALE



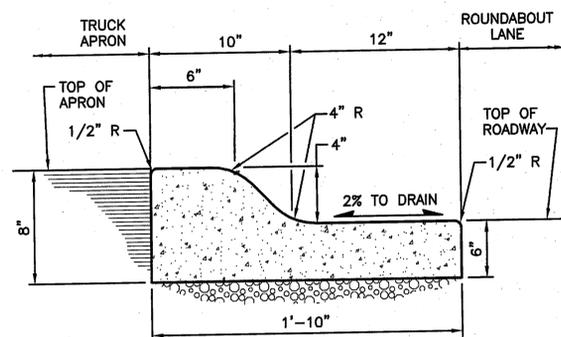
6 **ASPHALT RAMP DETAIL**
MD1 NOT TO SCALE



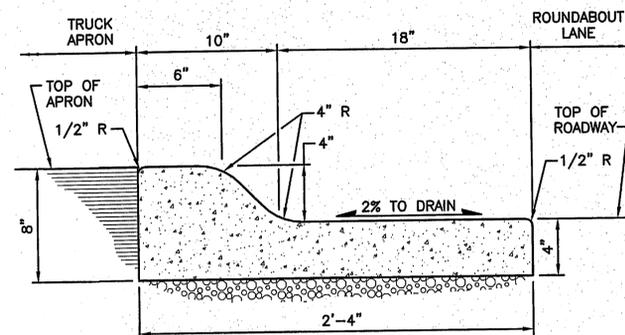
7 **TRUCK APRON CURB AND GUTTER**
MD1 NOT TO SCALE



8 **ROUNDABOUT TRUCK APRON CEMENT CONCRETE CURB AND GUTTER**
MD1 NOT TO SCALE



9 **SPLITTER ISLAND CURB AND GUTTER**
MD1 NOT TO SCALE



10 **ROUNDABOUT CEMENT CONCRETE CURB AND GUTTER**
MD1 NOT TO SCALE

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CITY OF FERDALE
2095 MAIN STREET
FERDALE, WA 98248

2ND AVENUE
STREET IMPROVEMENTS
PAVING DETAILS

JOB No
25-2008-006

SCALE
H: NONE V: NONE

DATE
07-08-09

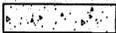
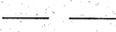
SHEET
MD1

SEC. 20, T. 39 N., R. 2 E., W.M.

GENERAL NOTES:

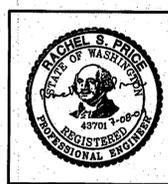
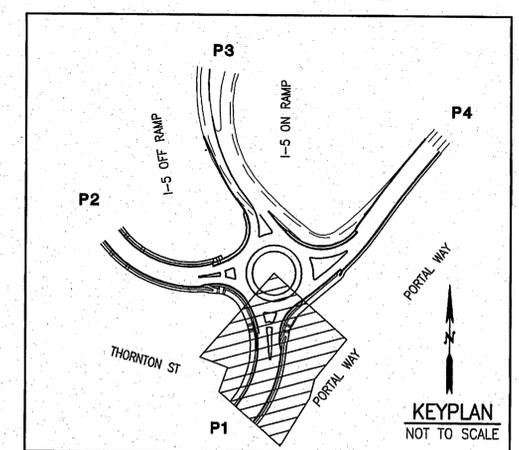
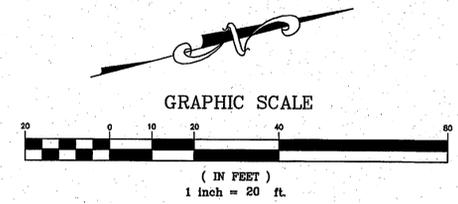
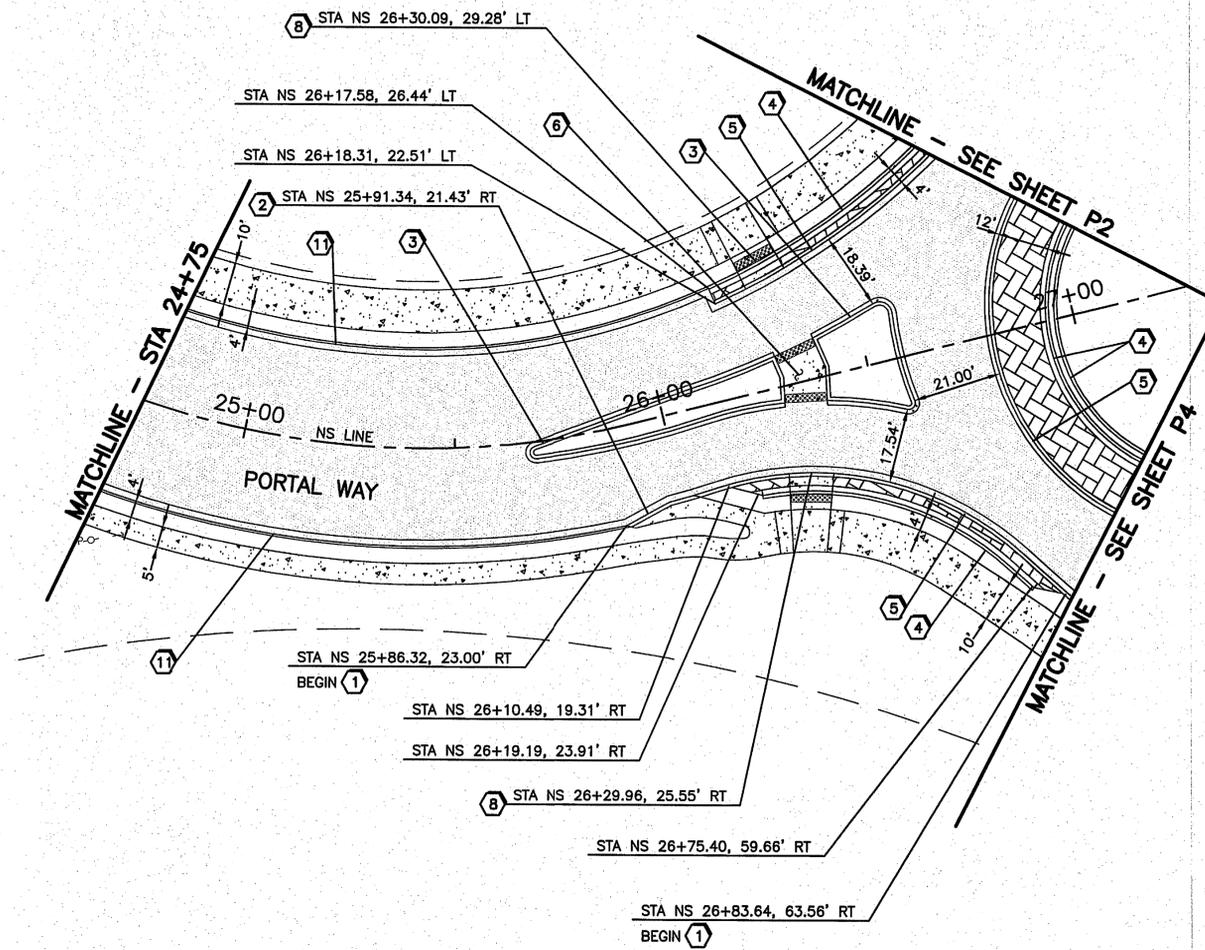
1. ALL DIMENSIONS, STATIONS AND OFFSETS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.
2. ALL RAMP DIMENSIONS ARE CENTER OF RAMP AT FACE OF CURB.

LEGEND:

-  CEMENT CONCRETE
-  FULL DEPTH ASPHALT PAVEMENT
-  TEXTURED CEMENT CONCRETE PAVEMENT
-  RIGHT OF WAY

CONSTRUCTION NOTES:

- ① ROUNDABOUT CEMENT CONCRETE CURB AND GUTTER PER DETAIL ON SHEET MD1.
- ② BIKE RAMP TYPE 2 PER DETAIL ON SHEET MD1.
- ③ SPLITTER ISLAND CURB AND GUTTER PER DETAIL ON SHEET MD1.
- ④ TRUCK APRON CURB AND GUTTER PER DETAIL ON SHEET MD1.
- ⑤ ROUNDABOUT TRUCK APRON CEMENT CONCRETE CURB AND GUTTER PER DETAIL ON SHEET MD1.
- ⑥ SIDEWALK IN SPLITTER ISLAND PER DETAIL ON SHEET MD1.
- ⑦ NOT USED THIS SHEET.
- ⑧ SIDEWALK RAMP TYPE 3A PER WSDOT STANDARD PLAN F-40.12-00.
- ⑨ NOT USED THIS SHEET.
- ⑩ NOT USED THIS SHEET.
- ⑪ CURB AND GUTTER PER CITY OF FERDALE STANDARD PLAN R-9.



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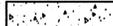
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|-----------------------|--|---|---|---|------------------------------|------|--------------------|----|--|--|-----------------------|------------------|
| Reid Middleton | 728 134th Street SW - Suite 200 Everett, Washington 98204 Ph: 425 741-3800 |  REICHHARDT & EBE ENGINEERING, INC. CONSULTING ENGINEERS | PO Box 978 423 Front St., Ste 201 Lynden, Washington 98264 | Ph (360) 354-3687 Fax (360) 354-0407 | NO. | DATE | REVISION | BY | CITY OF FERDALE 2095 MAIN STREET FERDALE, WA 98248 | 2ND AVENUE STREET IMPROVEMENTS PAVING PLAN | JOB No 25-2008-006 | DATE 07-08-09 |
| | | | | | SCALE H: 1" = 20' V: NONE | | SHEET P1 | | | | | |

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GENERAL NOTES:

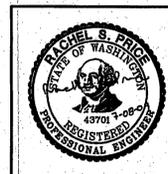
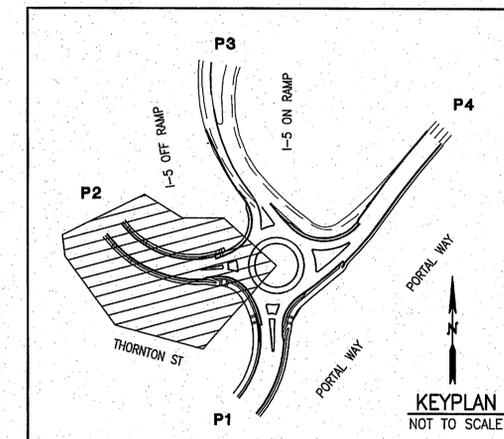
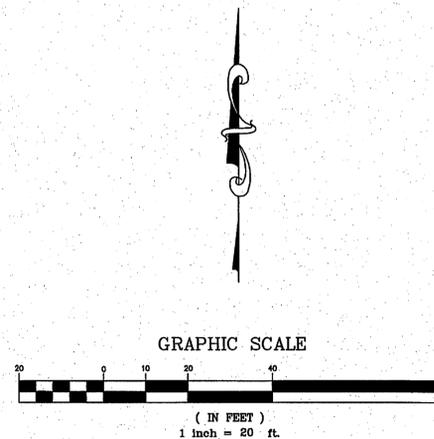
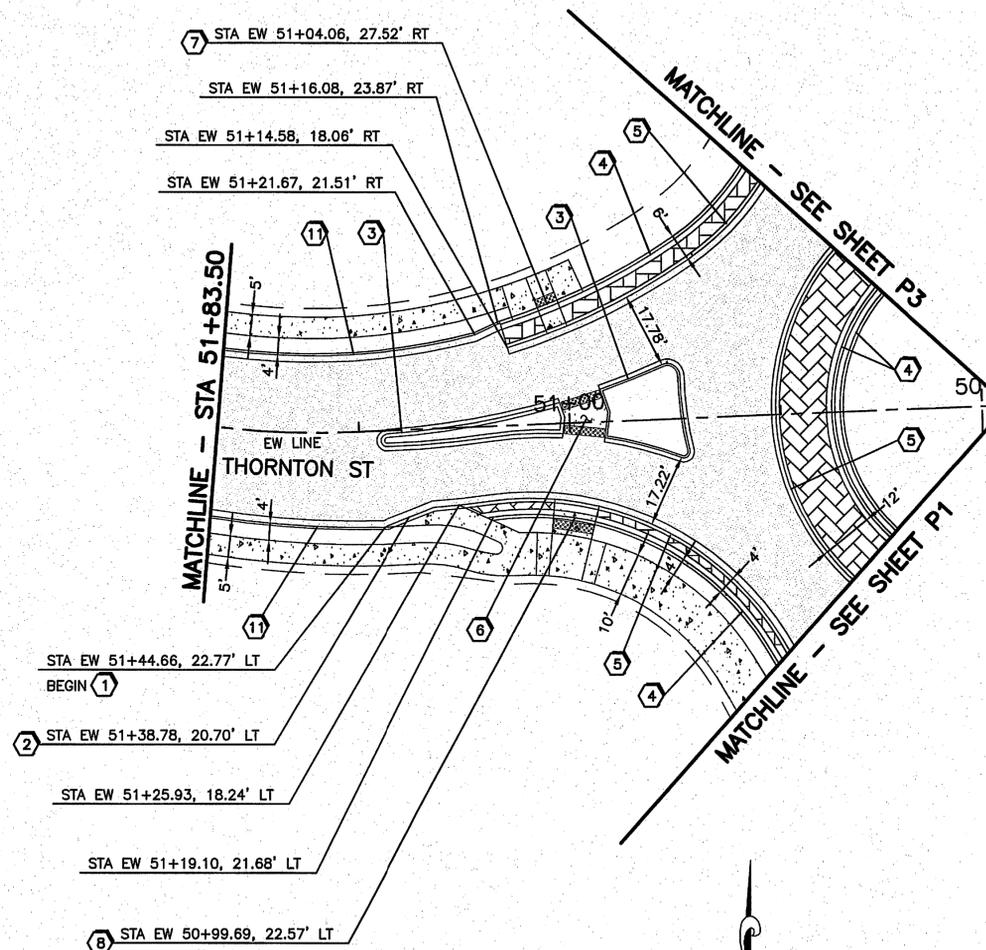
1. ALL DIMENSIONS, STATIONS AND OFFSETS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.
2. ALL RAMP DIMENSIONS ARE CENTER OF RAMP AT FACE OF CURB.

LEGEND:

-  CEMENT CONCRETE
-  FULL DEPTH ASPHALT PAVEMENT
-  TEXTURED CEMENT CONCRETE PAVEMENT
-  RIGHT OF WAY

CONSTRUCTION NOTES:

- ① ROUNDABOUT CEMENT CONCRETE CURB AND GUTTER PER DETAIL ON SHEET MD1.
- ② BIKE RAMP TYPE 2 PER DETAIL ON SHEET MD1.
- ③ SPLITTER ISLAND CURB AND GUTTER PER DETAIL ON SHEET MD1.
- ④ TRUCK APRON CURB AND GUTTER PER DETAIL ON SHEET MD1.
- ⑤ ROUNDABOUT TRUCK APRON CEMENT CONCRETE CURB AND GUTTER PER DETAIL ON SHEET MD1.
- ⑥ SIDEWALK IN SPLITTER ISLAND PER DETAIL ON SHEET MD1.
- ⑦ SIDEWALK RAMP TYPE 2 PER WSDOT STANDARD PLAN F-40.12-00.
- ⑧ SIDEWALK RAMP TYPE 3A PER WSDOT STANDARD PLAN F-40.12-00.
- ⑨ NOT USED THIS SHEET.
- ⑩ NOT USED THIS SHEET.
- ⑪ CURB AND GUTTER PER CITY OF FERDALE STANDARD PLAN R-9.

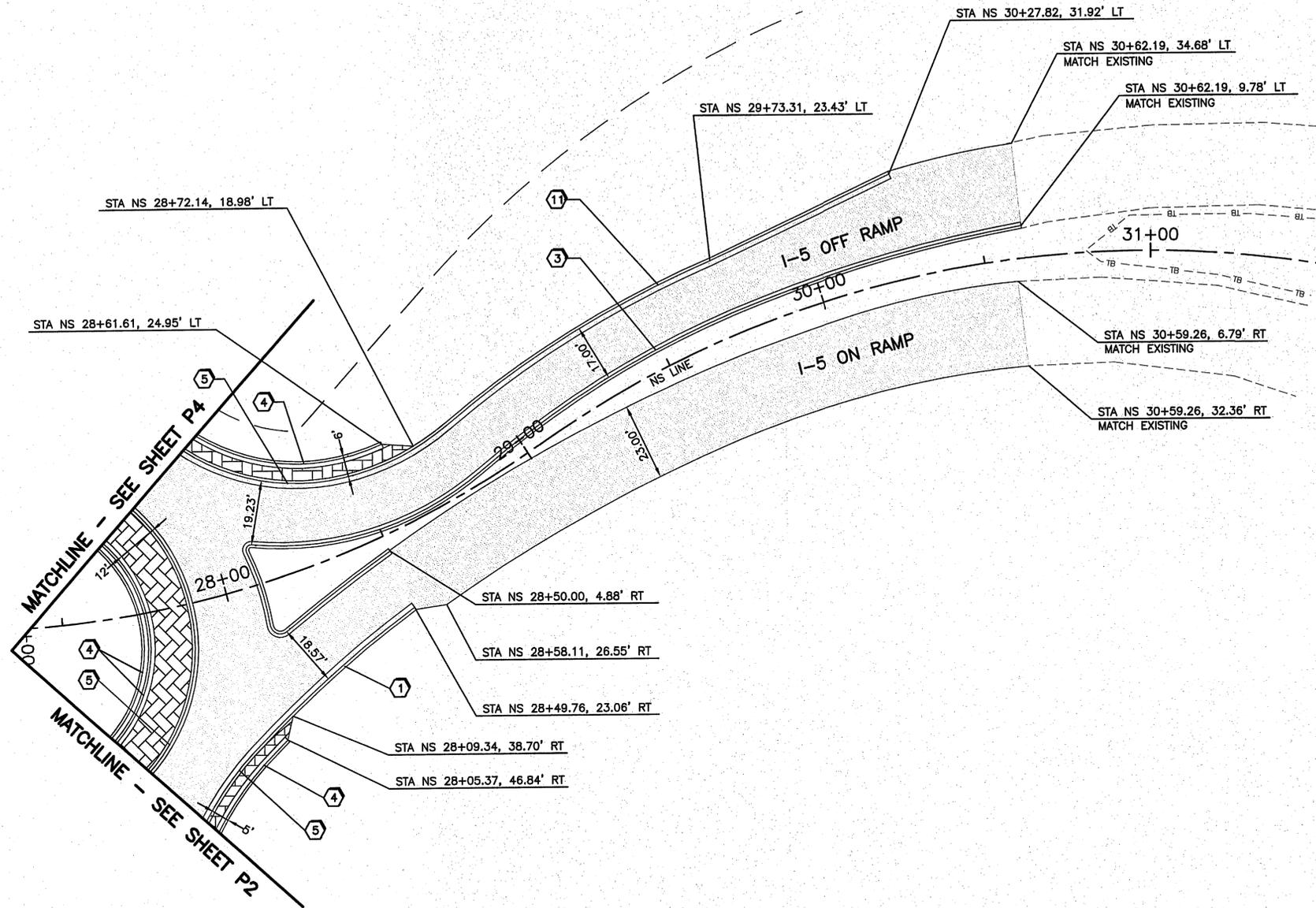


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|  | DESIGNED BY AR |  | REICHHARDT & EBE ENGINEERING, INC. CONSULTING ENGINEERS PO Box 978 423 Front St., Ste 201 Ph (360) 354-3687 Lynden, Washington 98264 Fax (360) 354-0407 | NO. DATE REVISION BY | CITY OF FERDALE 2095 MAIN STREET FERDALE, WA 98248 | 2ND AVENUE STREET IMPROVEMENTS PAVING PLAN | JOB No 25-2008-006 | DATE 07-08-09 |
| | DRAWN BY GM | | | | | | SCALE H:1"=20' v: NONE | SHEET P2 |
| CHECKED BY RP | | | | | | | | |

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GENERAL NOTES:

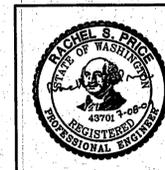
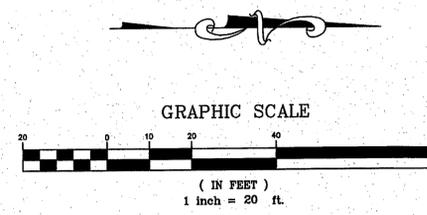
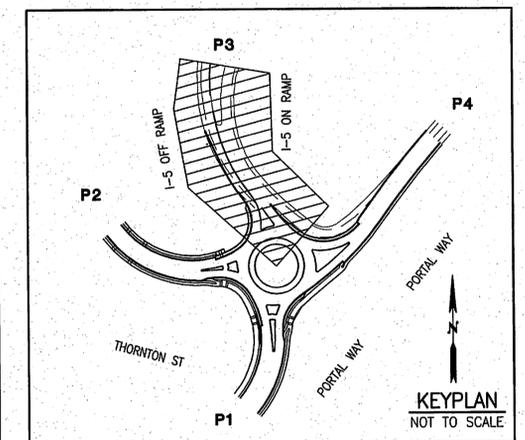
1. ALL DIMENSIONS, STATIONS AND OFFSETS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.
2. ALL RAMP DIMENSIONS ARE CENTER OF RAMP AT FACE OF CURB.

LEGEND:

- CEMENT CONCRETE
- FULL DEPTH ASPHALT PAVEMENT
- TEXTURED CEMENT CONCRETE PAVEMENT
- RIGHT OF WAY

CONSTRUCTION NOTES:

- 1 ROUNDABOUT CEMENT CONCRETE CURB AND GUTTER PER DETAIL ON SHEET MD1.
- 2 NOT USED THIS SHEET.
- 3 SPLITTER ISLAND CURB AND GUTTER PER DETAIL ON SHEET MD1.
- 4 TRUCK APRON CURB AND GUTTER PER DETAIL ON SHEET MD1.
- 5 ROUNDABOUT TRUCK APRON CEMENT CONCRETE CURB AND GUTTER PER DETAIL ON SHEET MD1.
- 6 NOT USED THIS SHEET.
- 7 NOT USED THIS SHEET.
- 8 NOT USED THIS SHEET.
- 9 NOT USED THIS SHEET.
- 10 NOT USED THIS SHEET.
- 11 CURB AND GUTTER PER CITY OF FERDALE STANDARD PLAN R-9.



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Fax (360) 354-0407

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CITY OF FERDALE
2095 MAIN STREET
FERDALE, WA 98248

2ND AVENUE
STREET IMPROVEMENTS
PAVING PLAN

JOB No
25-2008-006
SCALE
H: 1" = 20' v: NONE

DATE
07-08-09
SHEET
P3

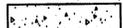
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GENERAL NOTES:

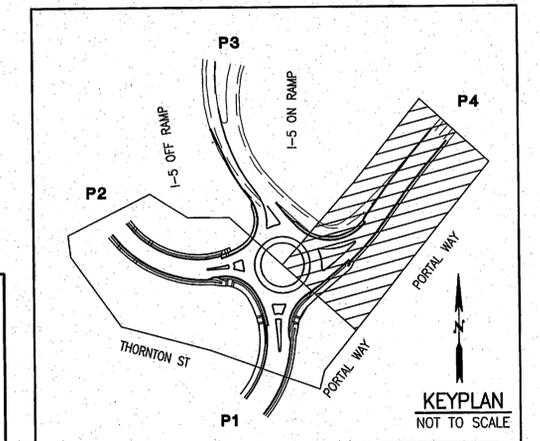
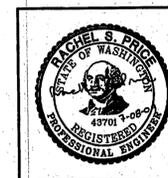
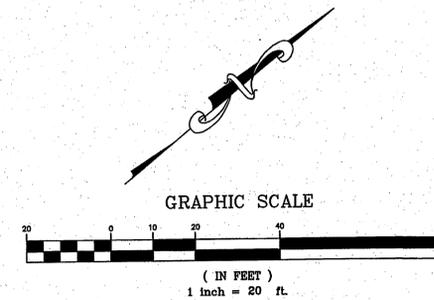
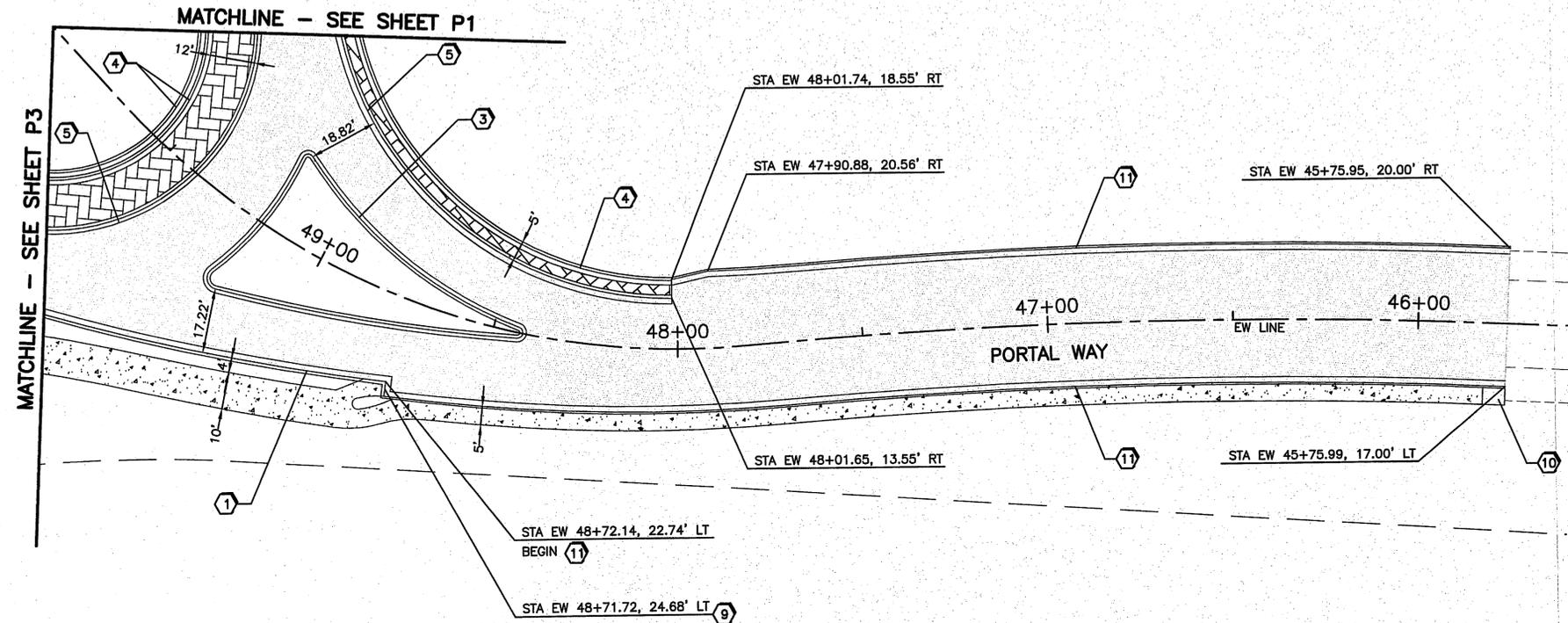
1. ALL DIMENSIONS, STATIONS AND OFFSETS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.
2. ALL RAMP DIMENSIONS ARE CENTER OF RAMP AT FACE OF CURB.

LEGEND:

-  CEMENT CONCRETE
-  FULL DEPTH ASPHALT PAVEMENT
-  TEXTURED CEMENT CONCRETE PAVEMENT
-  RIGHT OF WAY

CONSTRUCTION NOTES:

- 1 ROUNDABOUT CEMENT CONCRETE CURB AND GUTTER PER DETAIL ON SHEET MD1.
- 2 NOT USED THIS SHEET.
- 3 SPLITTER ISLAND CURB AND GUTTER PER DETAIL ON SHEET MD1
- 4 TRUCK APRON CURB AND GUTTER PER DETAIL ON SHEET MD1.
- 5 ROUNDABOUT TRUCK APRON CEMENT CONCRETE CURB AND GUTTER PER DETAIL ON SHEET MD1.
- 6 NOT USED THIS SHEET.
- 7 NOT USED THIS SHEET.
- 8 NOT USED THIS SHEET.
- 9 BIKE RAMP TYPE 1 PER DETAIL ON SHEET MD1.
- 10 ASPHALT RAMP PER DETAIL ON SHEET MD1.
- 11 CURB AND GUTTER PER CITY OF FERNDAL STANDARD PLAN R-9.



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Ph: 425 741-3800

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GM
CHECKED BY
RP



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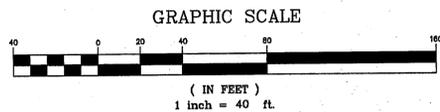
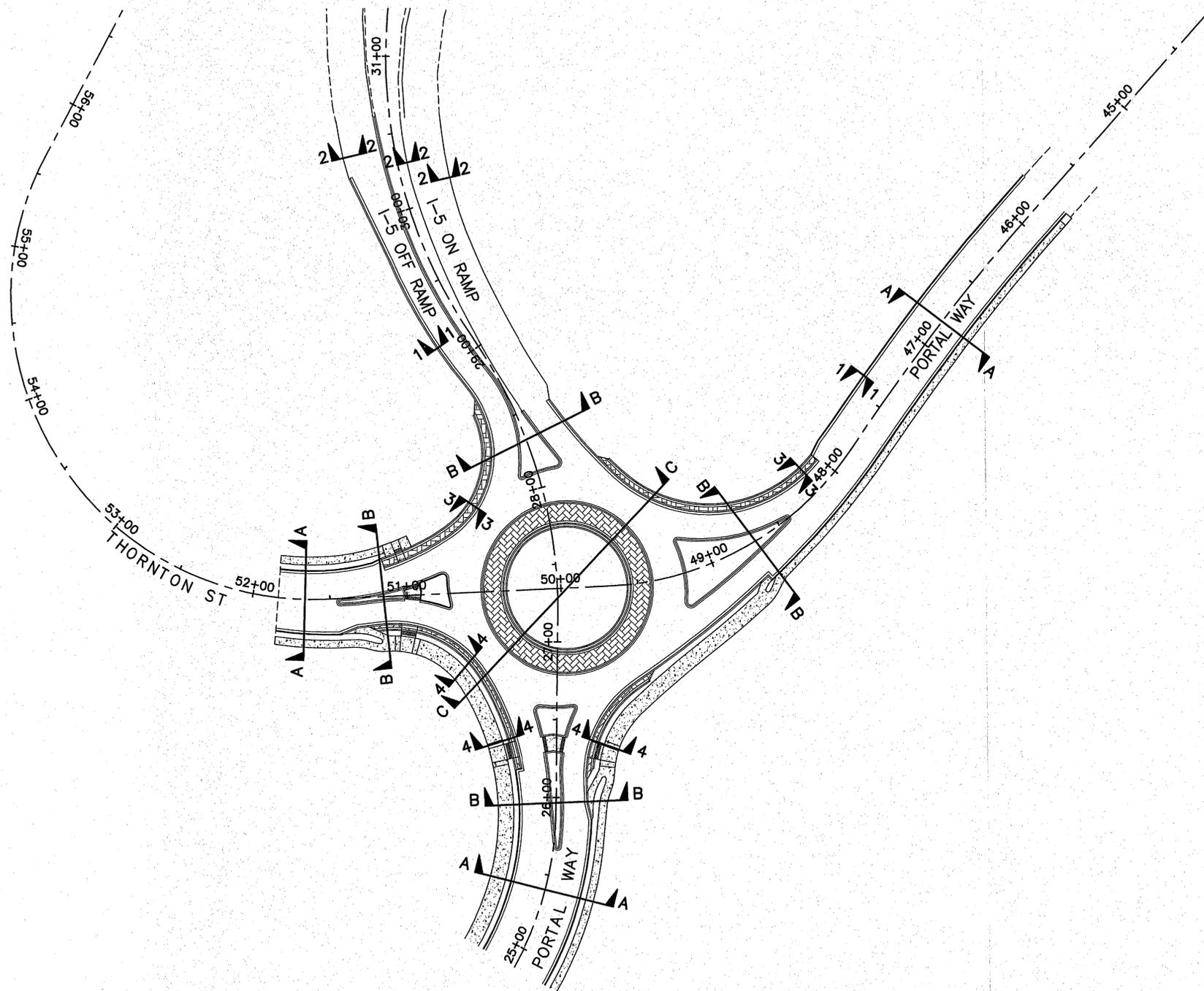
CITY OF FERNDAL
2095 MAIN STREET
FERNDAL, WA 98248

2ND AVENUE
STREET IMPROVEMENTS
PAVING PLAN

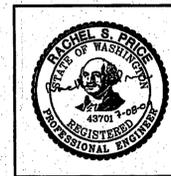
JOB No
25-2008-006
SCALE
H:1"=20' V:NONE

DATE
07-08-09
SHEET
P4

SEC. 20, T. 39 N., R. 2 E., W.M.



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CITY OF FERDALE
2095 MAIN STREET
FERDALE, WA 98248

2ND AVENUE
STREET IMPROVEMENTS
ROADWAY CROSS SECTIONS AND KEY

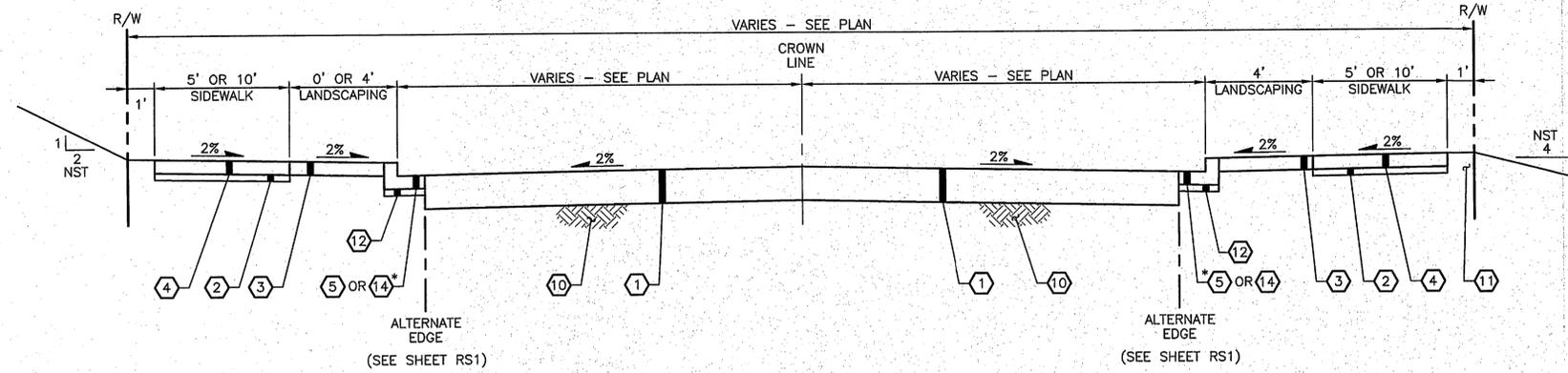
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|------------------------------|------------------|
| JOB No 25-2008-006 | DATE 07-08-09 |
| SCALE H: 1" = 40' V: NONE | SHEET RS1 |

GENERAL NOTE:

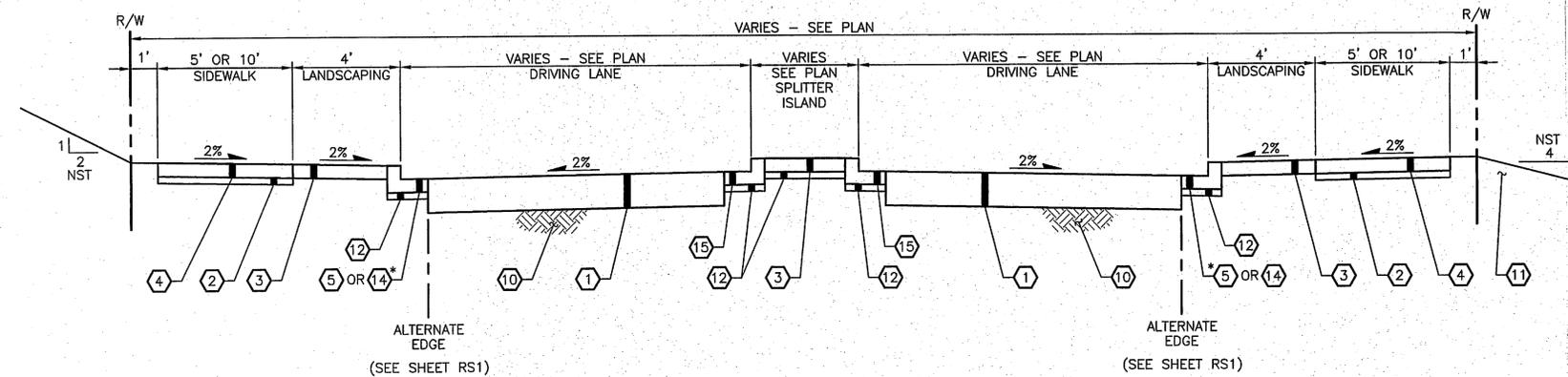
1. SEE GRADING AND PAVING SHEETS FOR DIMENSIONS.

LEGEND:

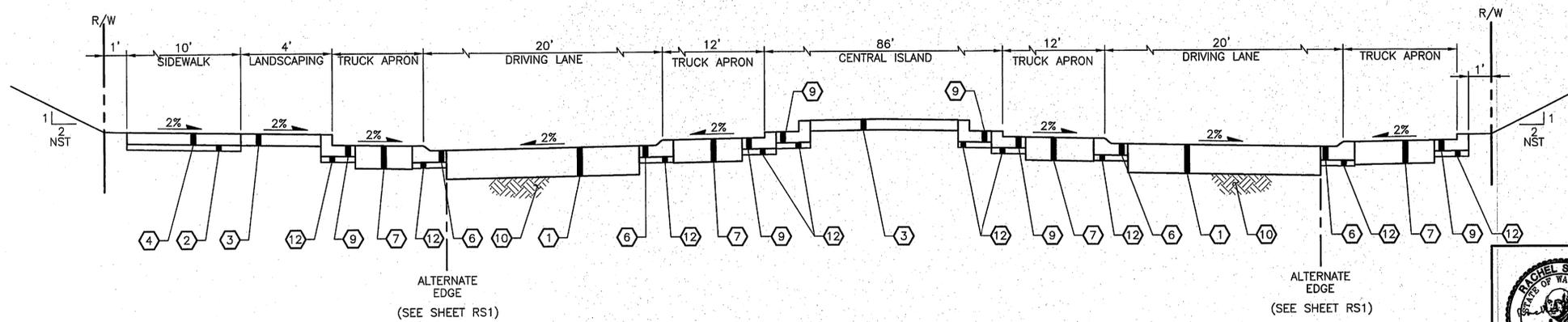
- ① FULL PAVEMENT SECTION
 - 3" ⑬
 - 3" ⑯
 - 2" ⑫
 - 12" ⑧
- ② 2" WASHED ROCK PER CITY OF FERDALE STANDARD PLAN R-12
- ③ SEE LANDSCAPING PLAN
- ④ CEMENT CONCRETE SIDEWALK PER CITY OF FERDALE STANDARD PLAN R-12
- ⑤ ROUNDABOUT CEMENT CONCRETE CURB AND GUTTER PER DETAIL ON SHEET MD1
- ⑥ ROUNDABOUT TRUCK APRON CEMENT CONCRETE CURB AND GUTTER PER DETAIL ON SHEET MD1
- ⑦ 8" TRUCK APRON TEXTURED CEMENT CONCRETE PAVEMENT
- ⑧ GRAVEL BASE
- ⑨ TRUCK APRON CURB AND GUTTER PER DETAIL ON SHEET MD1
- ⑩ COMPACTED SUBGRADE
- ⑪ GRAVEL BORROW
- ⑫ 2" CRUSHED SURFACING TOP COURSE
- ⑬ HMA CL 1/2 IN. PG 64-22
- ⑭ CURB AND GUTTER PER CITY OF FERDALE STANDARD PLAN R-9
- ⑮ SPLITTER ISLAND CURB AND GUTTER PER DETAIL ON SHEET MD1
- ⑯ HMA CL 1 IN. PG 64-22



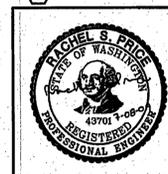
* SEE PLANS FOR LOCATIONS OF VARIOUS CURB TYPES
SECTION A-A - NO SPLITTER ISLAND
 NOT TO SCALE



* SEE PLANS FOR LOCATIONS OF VARIOUS CURB TYPES
SECTION B-B - SPLITTER ISLAND
 NOT TO SCALE



SECTION C-C - CENTRAL ISLAND
 NOT TO SCALE



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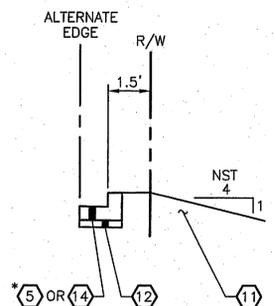
REICHARDT & EBE
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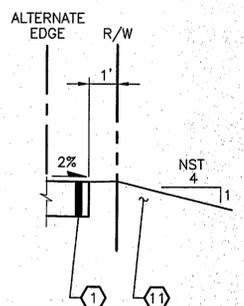
CITY OF FERDALE
 2095 MAIN STREET
 FERDALE, WA 98248

2ND AVENUE
 STREET IMPROVEMENTS
 ROADWAY CROSS SECTIONS

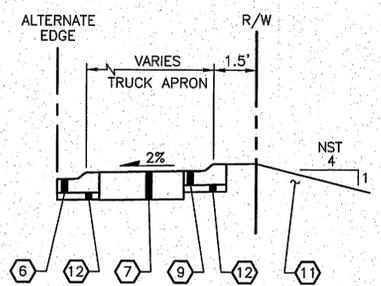
| | |
|------------------------|---------------------|
| JOB No 25-2008-006 | DATE 07-08-09 |
| SCALE H:NONE V:NONE | SHEET RS2 |



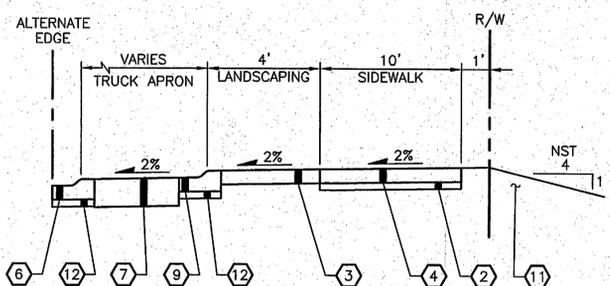
*SEE PLANS FOR LOCATIONS OF VARIOUS CURB TYPES
ALTERNATE EDGE 1
 NOT TO SCALE



ALTERNATE EDGE 2
 NOT TO SCALE



ALTERNATE EDGE 3
 NOT TO SCALE



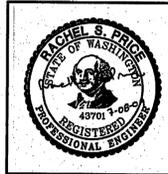
ALTERNATE EDGE 4
 NOT TO SCALE

GENERAL NOTE:

- SEE GRADING AND PAVING SHEETS FOR DIMENSIONS.

LEGEND:

- 1 FULL PAVEMENT SECTION
- 2 2" WASHED ROCK PER CITY OF FERNDAL STANDARD PLAN R-12
- 3 SEE LANDSCAPING PLAN
- 4 CEMENT CONCRETE SIDEWALK PER CITY OF FERNDAL STANDARD PLAN R-12
- 5 ROUNDABOUT CEMENT CONCRETE CURB AND GUTTER PER DETAIL ON SHEET MD1
- 6 ROUNDABOUT TRUCK APRON CEMENT CONCRETE CURB AND GUTTER PER DETAIL ON SHEET MD1
- 7 8" TRUCK APRON TEXTURED CEMENT CONCRETE PAVEMENT
- 8 GRAVEL BASE
- 9 TRUCK APRON CURB AND GUTTER PER DETAIL ON SHEET MD1
- 10 COMPACTED SUBGRADE
- 11 GRAVEL BORROW
- 12 2" CRUSHED SURFACING TOP COURSE
- 13 HMA CL 1/2 IN. PG 64-22
- 14 CURB AND GUTTER PER CITY OF FERNDAL STANDARD PLAN R-9
- 15 SPLITTER ISLAND CURB AND GUTTER PER DETAIL ON SHEET MD1
- 16 HMA CL 1 IN. PG 64-22



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| | DESIGNED BY AR DRAWN BY GM CHECKED BY RP | | SCALE H: NONE V: NONE | SHEET RS3 | | | | | | |

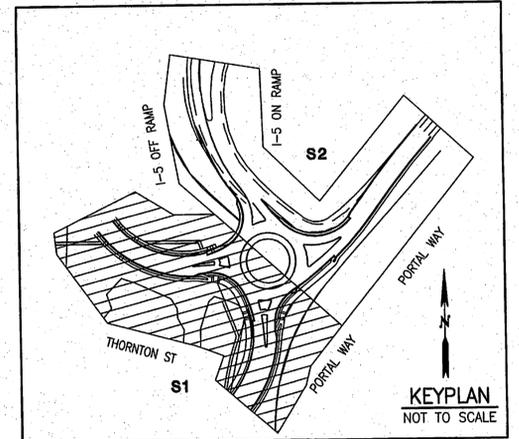
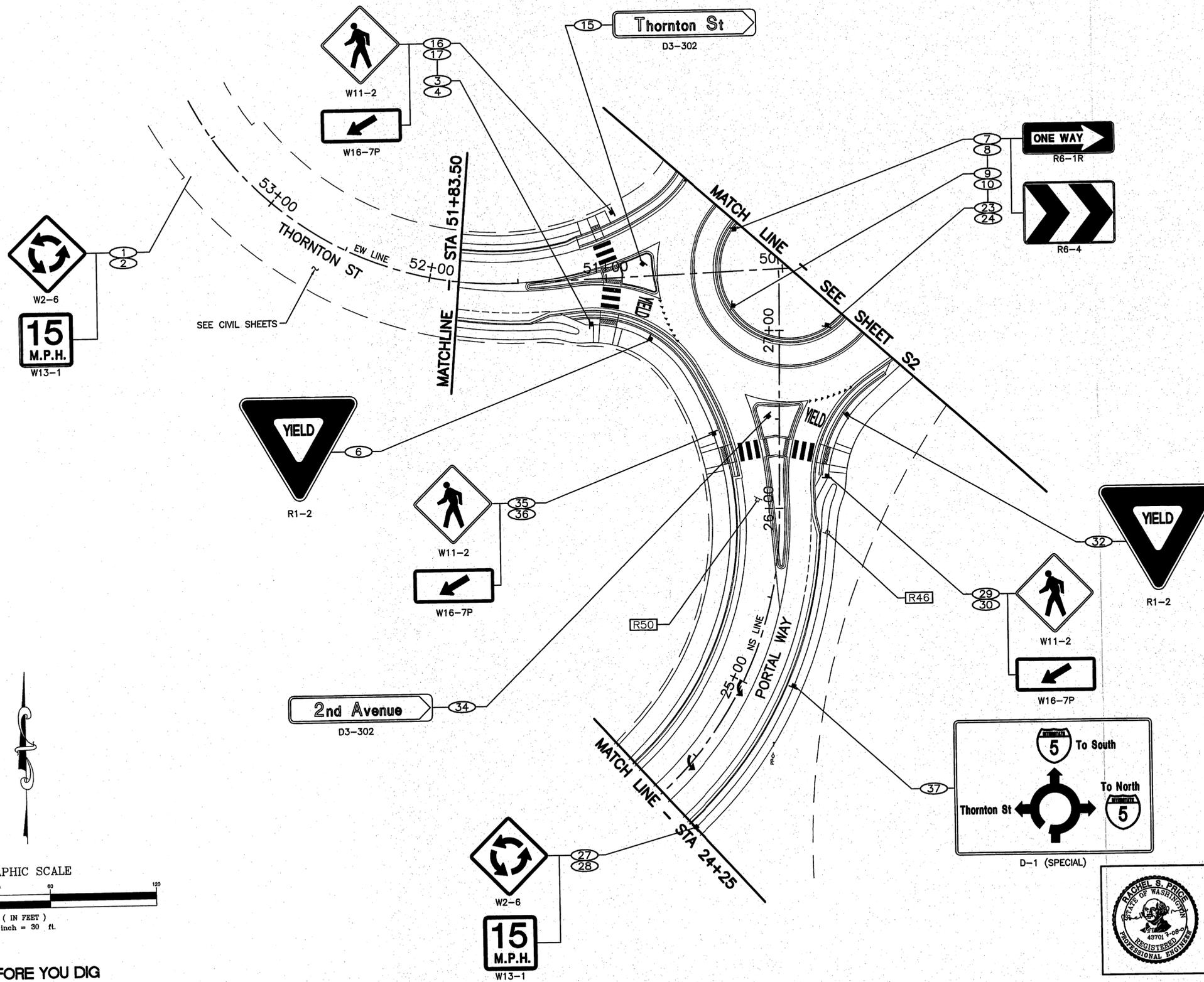
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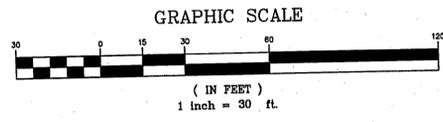
- SEE SHEET SD1 FOR SIGN SCHEDULE AND SIGN DETAILS.
- SIGN POST LOCATIONS SHALL BE APPROVED BY ENGINEER PRIOR TO EXCAVATION.

LEGEND:

- ◻ EXISTING SIGN
- ◻ PROPOSED SIGN
- ① NEW SIGN
- ① NEW LOCATION
- ① SIGN RELOCATION
- ① OLD LOCATION
- RT SIGN REMOVAL



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CITY OF FERDALE
2095 MAIN STREET
FERDALE, WA 98248

2ND AVENUE
STREET IMPROVEMENTS
SIGNING PLAN

| | |
|--------------------------|------------------|
| JOB No 25-2008-006 | DATE 07-08-09 |
| SCALE H:1"=30' V:NONE | SHEET S1 |



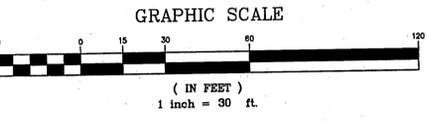
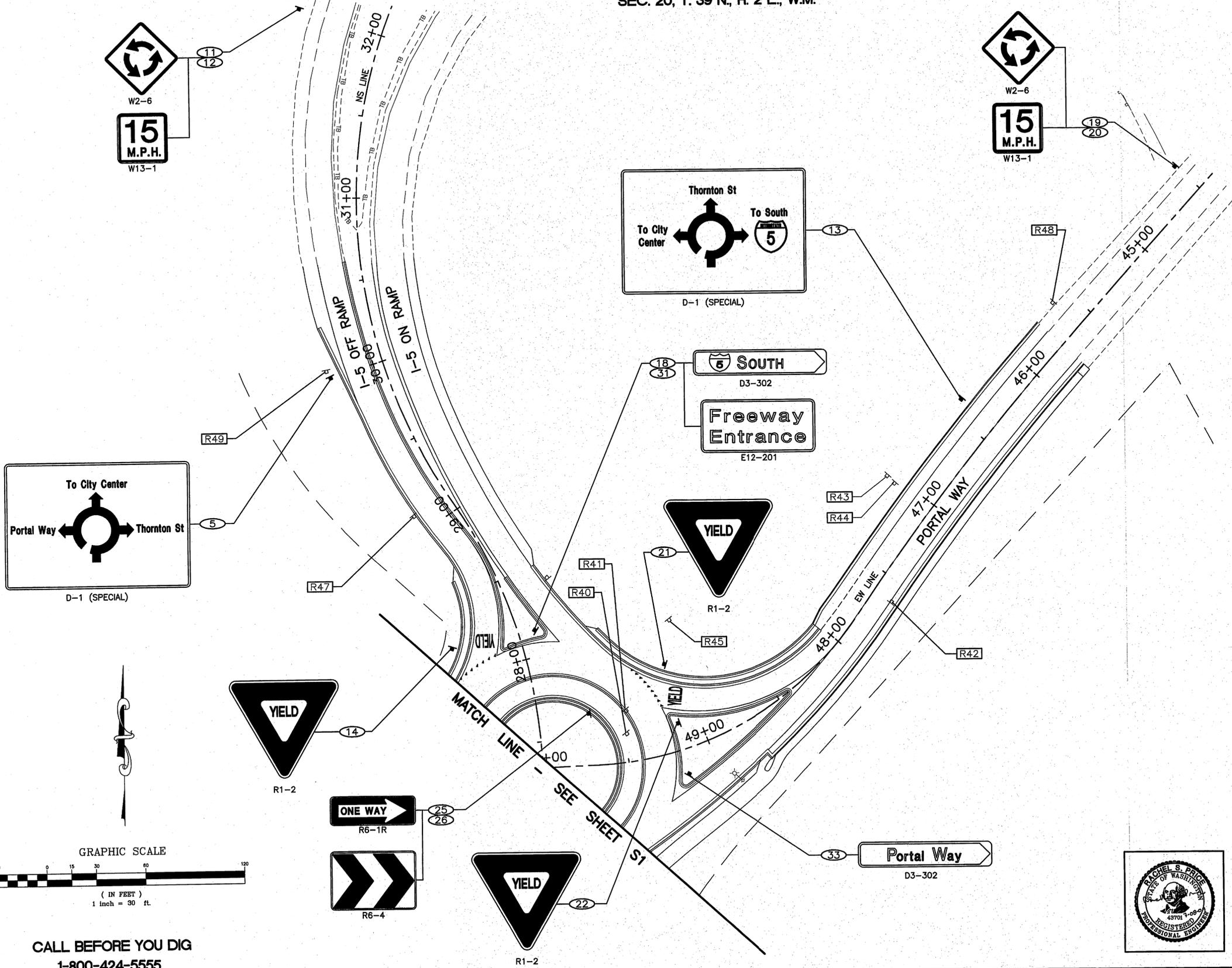
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GENERAL NOTES:

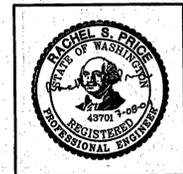
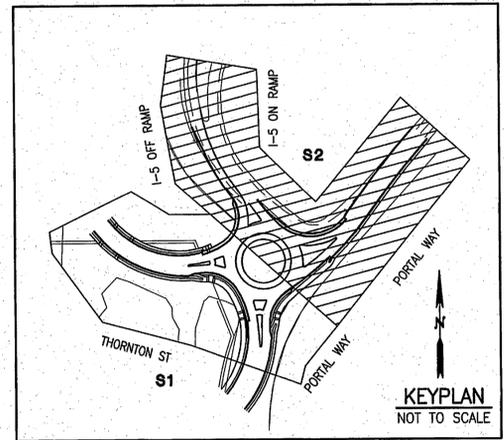
- SEE SHEET SD1 FOR SIGN SCHEDULE AND SIGN DETAILS.
- SIGN POST LOCATIONS SHALL BE APPROVED BY ENGINEER PRIOR TO EXCAVATION.

LEGEND:

- ◻ EXISTING SIGN
- ◻ PROPOSED SIGN
- NEW SIGN
- ◻ NEW LOCATION
- ◻ SIGN RELOCATION
- ◻ OLD LOCATION
- ◻ SIGN REMOVAL



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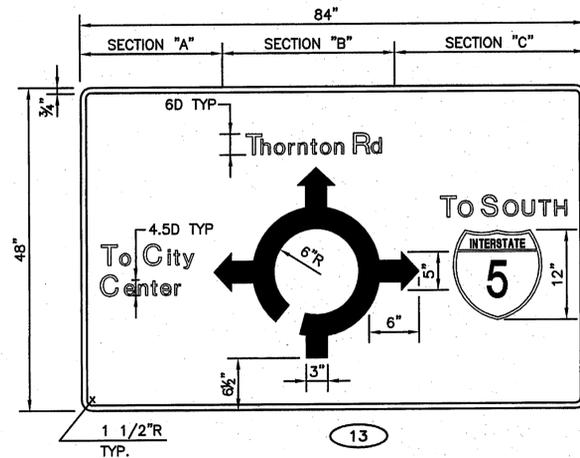


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| | | | | SCALE H: 1" = 30' V: NONE | SHEET S2 | | | | | | |

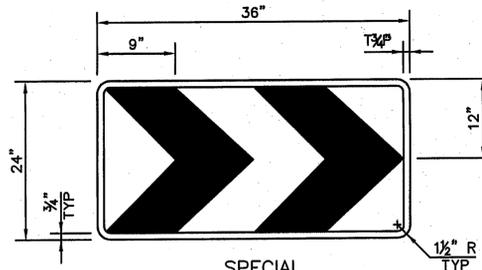
| SIGN SCHEDULE | | | | | | | | | | | |
|---------------|----------|-------------|-----------|--------------|-----------|---------|------------|---------|---------------------|---------------|-----------------------|
| SIGN NO. | STATION | OFFSET (FT) | CLEARANCE | | SIGN SIZE | | POST INFO | | DESCRIPTION | SHEETING TYPE | REMARKS |
| | | | V (ft.) | SIGN TYPE | W (in.) | H (in.) | SIZE (in.) | LENGTH | | | |
| 1 | EW 53+40 | 22 LT | 7 | W2-6 | 36 | 36 | PSST 2 1/2 | 14' | ROUNDABOUT AHEAD | VIII | MOUNT NEW SIGN & POST |
| 2 | EW 53+40 | 22 LT | - | W13-1 | 18 | 18 | - | - | 15 MPH | VIII | MOUNT BELOW SIGN 1 |
| 3 | EW 51+10 | 25 LT | 7 | W11-2 | 36 | 36 | PSST 2 1/2 | 13' | PEDESTRIAN CROSSING | VIII | MOUNT NEW SIGN & POST |
| 4 | EW 51+10 | 25 LT | - | W16-P | 24 | 12 | - | - | DIAGONAL ARROW | VIII | MOUNT BELOW SIGN 3 |
| 5 | NS 30+00 | 33 LT | 7 | D-1 SPECIAL | 84 | 48 | PSST 2 1/2 | (2) 15' | DESTINATION SIGN | VIII | MOUNT NEW SIGN & POST |
| 6 | EW 50+77 | 35 LT | 7 | R1-2 | 36 | 36 | PSST 2 1/2 | 13' | YIELD | IV | MOUNT NEW SIGN & POST |
| 7 | NS 27+60 | 23 LT | 4.5 | R6-1R | 36 | 12 | PSST 2 1/2 | 8' | ONE WAY | IV | MOUNT NEW SIGN & POST |
| 8 | NS 27+60 | 23 LT | - | R6-4 | 36 | 24 | - | - | CHEVRON | IV | MOUNT BELOW SIGN 7 |
| 9 | EW 50+29 | 19 LT | 4.5 | R6-1R | 36 | 12 | PSST 2 1/2 | 8' | ONE WAY | IV | MOUNT NEW SIGN & POST |
| 10 | EW 50+29 | 19 LT | - | R6-4 | 36 | 24 | - | - | CHEVRON | IV | MOUNT BELOW SIGN 9 |
| 11 | NS 32+00 | 52 LT | 7 | W2-6 | 36 | 36 | PSST 2 1/2 | 15' | ROUNDABOUT AHEAD | VIII | MOUNT NEW SIGN & POST |
| 12 | NS 32+00 | 52 LT | - | W13-1 | 18 | 18 | - | - | 15 MPH | VIII | MOUNT BELOW SIGN 11 |
| 13 | EW 46+40 | 28 RT | 7 | D-1 SPECIAL | 84 | 48 | PSST 2 1/2 | (2) 15' | DESTINATION SIGN | VIII | MOUNT NEW SIGN & POST |
| 14 | NS 28+21 | 41 LT | 7 | R1-2 | 36 | 36 | PSST 2 1/2 | 13' | YIELD | IV | MOUNT NEW SIGN & POST |
| 15 | EW 50+79 | 7 RT | 7 | D3-302 (MOD) | 48 | 12 | PSST 2 1/2 | 11' | THORNTON ST | IV | MOUNT NEW SIGN & POST |
| 16 | EW 50+95 | 37 RT | 7 | W11-2 | 36 | 36 | PSST 2 1/2 | 14' | PEDESTRIAN CROSSING | VIII | MOUNT NEW SIGN & POST |
| 17 | EW 50+95 | 37 RT | - | W16-7P | 24 | 12 | - | - | DIAGONAL ARROW | VIII | MOUNT BELOW SIGN 16 |
| 18 | NS 28+15 | 10 RT | 7 | D3-302 (MOD) | 36 | 12 | PSST 2 1/2 | 11' | I-5 SOUTH | IV | MOUNT NEW SIGN & POST |
| 19 | EW 44+50 | 20 RT | 7 | W2-6 | 36 | 36 | PSST 2 1/2 | 15' | ROUNDABOUT AHEAD | VIII | MOUNT NEW SIGN & POST |
| 20 | EW 44+50 | 20 RT | - | W13-1 | 18 | 18 | - | - | 15 MPH | VIII | MOUNT BELOW SIGN 19 |
| 21 | EW 49+10 | 52 RT | 7 | R1-2 | 36 | 36 | PSST 2 1/2 | 13' | YIELD | IV | MOUNT NEW SIGN & POST |
| 22 | EW 49+14 | 16 RT | 7 | R1-2 | 36 | 36 | PSST 2 1/2 | 13' | YIELD | IV | MOUNT NEW SIGN & POST |
| 23 | NS 27+03 | 27 RT | 4.5 | R6-1R | 36 | 12 | PSST 2 1/2 | 8' | ONE WAY | IV | MOUNT NEW SIGN & POST |
| 24 | NS 27+03 | 27 RT | - | R6-4 | 36 | 24 | - | - | CHEVRON | IV | MOUNT BELOW SIGN 23 |

| SIGN SCHEDULE | | | | | | | | | | | |
|---------------|------------|-------------|-----------|--------------|-----------|---------|------------|---------|---------------------|---------------|-----------------------|
| SIGN NO. | STATION | OFFSET (FT) | CLEARANCE | | SIGN SIZE | | POST INFO | | DESCRIPTION | SHEETING TYPE | REMARKS |
| | | | V (ft.) | SIGN TYPE | W (in.) | H (in.) | SIZE (in.) | LENGTH | | | |
| 25 | EW 49+73 | 31 RT | 4.5 | R6-1R | 36 | 12 | PSST 2 1/2 | 8' | ONE WAY | IV | MOUNT NEW SIGN & POST |
| 26 | EW 49+73 | 31 RT | - | R6-4 | 36 | 24 | - | - | CHEVRON | IV | MOUNT BELOW SIGN 25 |
| 27 | NS 24+23 | 27 RT | 7 | W2-6 | 36 | 36 | PSST 2 1/2 | 14' | ROUNDABOUT AHEAD | VIII | MOUNT NEW SIGN & POST |
| 28 | NS 24+23 | 27 RT | - | W13-1 | 18 | 18 | - | - | 15 MPH | VIII | MOUNT BELOW SIGN 27 |
| 29 | NS 26+18 | 27 RT | 7 | W11-2 | 36 | 36 | PSST 2 1/2 | 13' | PEDESTRIAN CROSSING | VIII | MOUNT NEW SIGN & POST |
| 30 | NS 26+18 | 27 RT | - | W16-7P | 24 | 12 | - | - | DIAGONAL ARROW | VIII | MOUNT BELOW SIGN 29 |
| 31 | NS 28+15 | 10 RT | - | E12-201 | 36 | 24 | - | - | FREEWAY ENTRANCE | IV | MOUNT BELOW SIGN 18 |
| 32 | NS 26+52 | 38 RT | 7 | R1-2 | 36 | 36 | PSST 2 1/2 | 13' | YIELD | IV | MOUNT NEW SIGN & POST |
| 33 | EW 49+17 | 15 LT | 7 | D3-302 (MOD) | 48 | 12 | PSST 2 1/2 | 11' | PORTAL WAY | IV | MOUNT NEW SIGN & POST |
| 34 | NS 26+52.4 | 6 LT | 7 | D3-302 (MOD) | 36 | 12 | PSST 2 1/2 | 11' | 2ND AVENUE | IV | MOUNT NEW SIGN & POST |
| 35 | NS 26+42 | 37 LT | 7 | W11-2 | 36 | 36 | PSST 2 1/2 | 13' | PEDESTRIAN CROSSING | VIII | MOUNT NEW SIGN & POST |
| 36 | NS 26+42 | 37 LT | - | W16-7P | 24 | 12 | - | - | DIAGONAL ARROW | VIII | MOUNT BELOW SIGN 35 |
| 37 | NS 25+09 | 27 RT | 7 | D-1 SPECIAL | 84 | 48 | PSST 2 1/2 | (2) 14' | DESTINATION SIGN | VIII | MOUNT NEW SIGN & POST |
| R40 | EW 49+49 | 18 RT | - | - | - | - | - | - | - | - | REMOVE EXISTING SIGN |
| R41 | EW 49+47 | 31 RT | - | - | - | - | - | - | - | - | REMOVE EXISTING SIGN |
| R42 | EW 47+63 | 13 LT | - | - | - | - | - | - | - | - | REMOVE EXISTING SIGN |
| R43 | EW 47+02 | 34 RT | - | - | - | - | - | - | - | - | REMOVE EXISTING SIGN |
| R44 | EW 47+03 | 27 RT | - | - | - | - | - | - | - | - | REMOVE EXISTING SIGN |
| R45 | NS 28+00 | 90 RT | - | - | - | - | - | - | - | - | REMOVE EXISTING SIGN |
| R46 | NS 25+87 | 27 RT | - | - | - | - | - | - | - | - | REMOVE EXISTING SIGN |
| R47 | NS 29+11 | 24 LT | - | - | - | - | - | - | - | - | REMOVE EXISTING SIGN |
| R48 | EW 45+60 | 21 RT | - | - | - | - | - | - | - | - | REMOVE EXISTING SIGN |
| R49 | NS 30+05 | 34 LT | - | - | - | - | - | - | - | - | REMOVE EXISTING SIGN |
| R50 | NS 26+05 | 12 LT | - | - | - | - | - | - | - | - | REMOVE EXISTING SIGN |



COLORS:
BACKGROUND - GREEN (REFLECTIVE)
LEGEND - WHITE (REFLECTIVE)

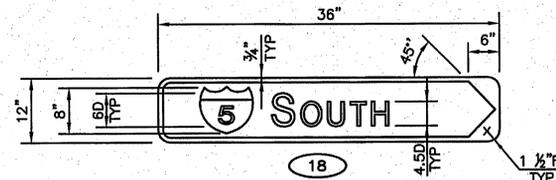
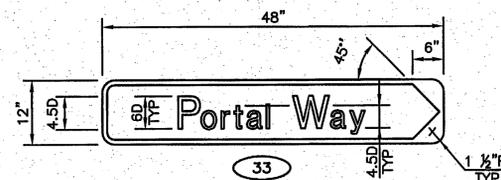
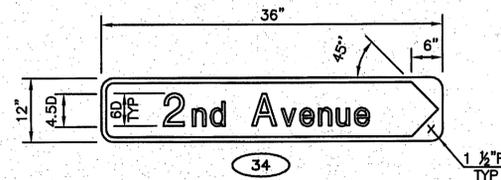
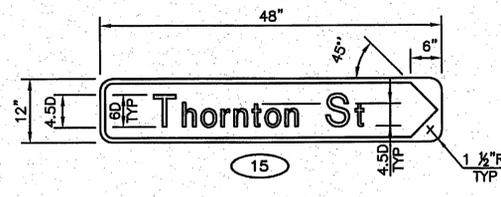
D-1 SPECIAL
NOT TO SCALE



COLORS:
BACKGROUND - WHITE (REFLECTIVE)
CHEVRON - BLACK (NON-REFLECTIVE)

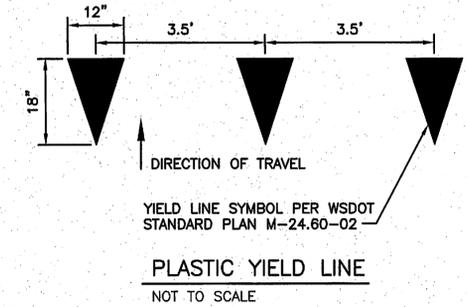
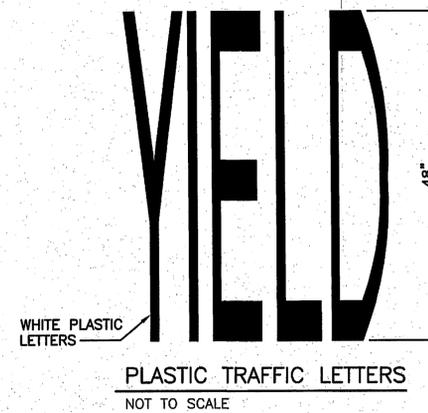
CHEVRON DETAIL
NOT TO SCALE

| SIGN | SECTION | MODIFICATION |
|------|---------|----------------|
| 5 | A | Portal Way |
| | B | To City Center |
| | C | Thornton St |
| 37 | A | Thornton St |
| | B | To South 5 |
| | C | To North 5 |



COLORS:
BACKGROUND - GREEN (REFLECTIVE)
LEGEND - WHITE (REFLECTIVE)

D3-302 MOD
NOT TO SCALE



07/10/2009 9:17am I:\25\2008\006\Ferndale\Design\5806-SD1.dwg

ReidMiddleton
728 134th Street SW - Suite 200
Everett, Washington 98204
Ph: 425 741-3800

DESIGNED BY
AR
DRAWN BY
GM
CHECKED BY
RP



REICHHARDT & EBE
ENGINEERING, INC.
CONSULTING ENGINEERS
PO Box 978 423 Front St., Ste 201 Ph (360) 354-3687
Lynden, Washington 98264 Fax (360) 354-0407

| NO. | DATE | REVISION | BY |
|-----|------|----------|----|
| | | | |

CITY OF FERDALE
2095 MAIN STREET
FERDALE, WA 98248

2ND AVENUE
STREET IMPROVEMENTS
SIGN SCHEDULE AND DETAILS

JOB No
25-2008-006
SCALE
H: NONE V: NONE

DATE
07-08-09
SHEET
SD1



STATE OF WASHINGTON REGISTERED LANDSCAPE ARCHITECT

PAUL M. GEORGE CERTIFICATE NO. 641



Cascade Design Group

P.O. Box 5938 Bellingham, WA 98227 360-715-2119

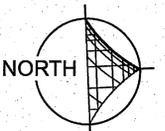
cgroup@cascaadedesigngroup.net

Paul George Landscape Architect

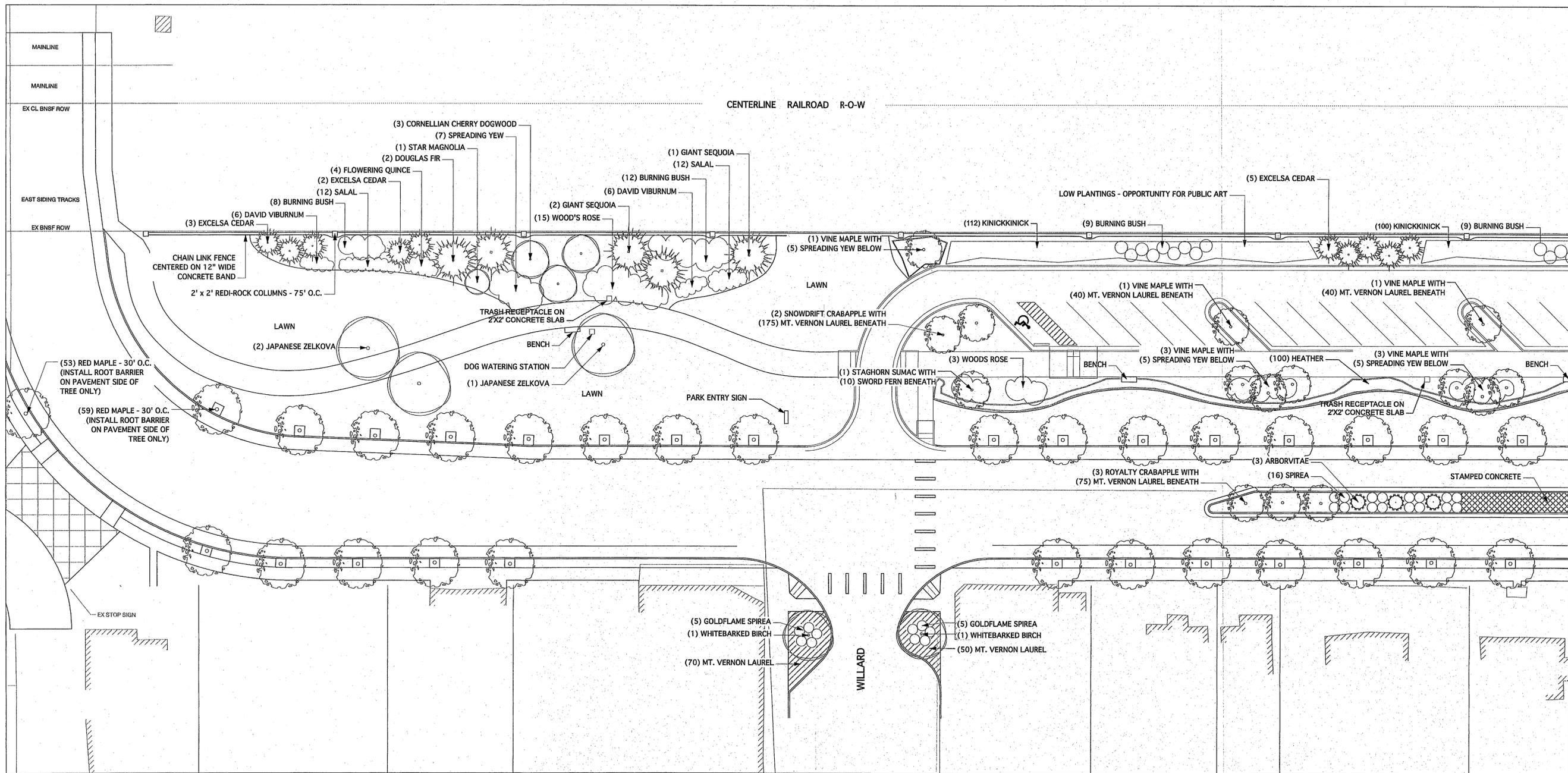
City of Ferndale
2nd Avenue Park Project
Ferndale, WA

REVISIONS

DATE: June 25 2009



L-1



2nd Avenue - Alternate One

Scale: 1" = 20'-0"



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LANDSCAPE ARCHITECT

PAUL M. GEORGE
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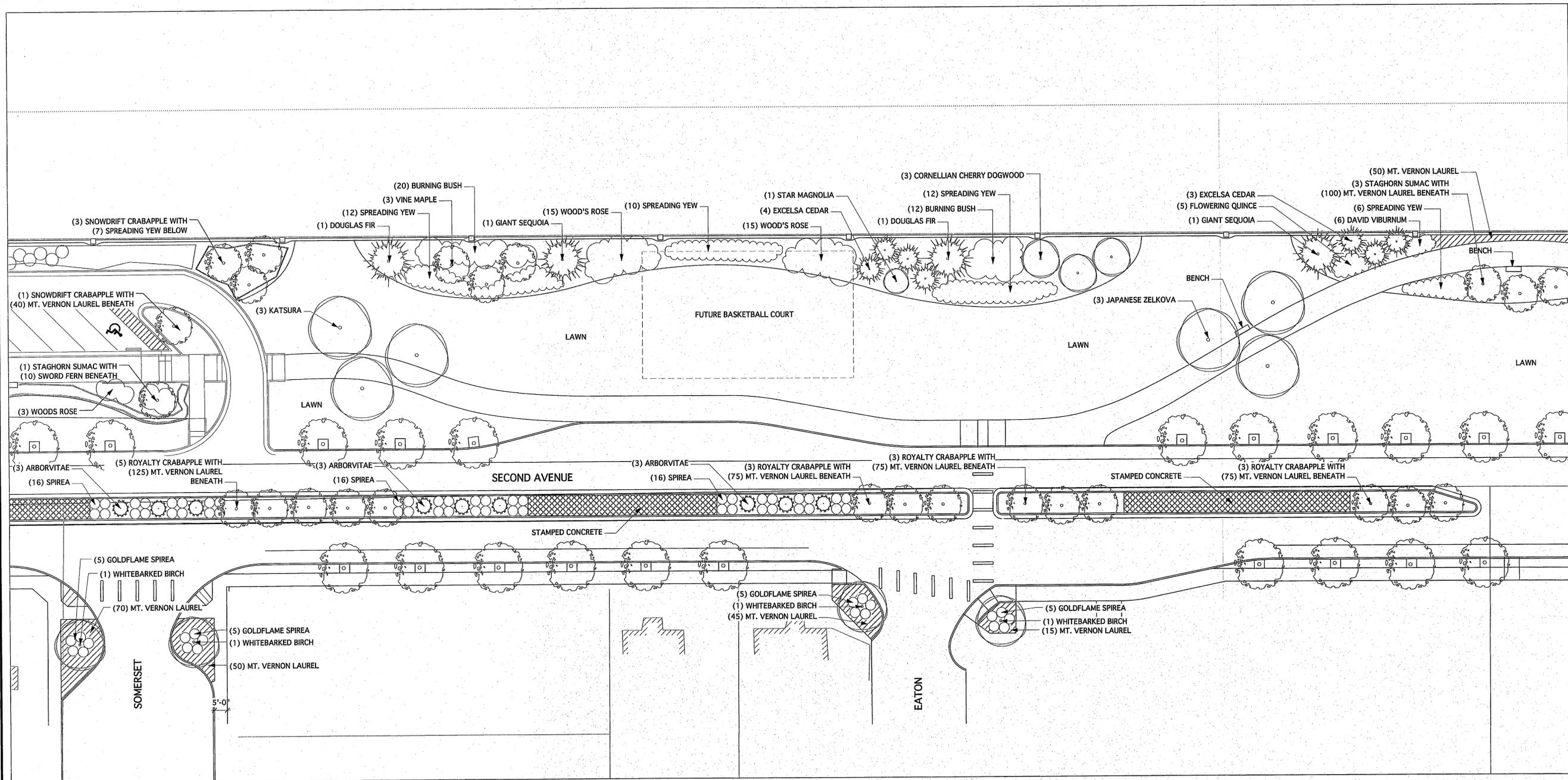
Cascade Design Group

P.O. Box 5938
Bellingham, WA 98227
360-715-2119

cgroup@cascaadedesigngroup.net

Paul George
Landscape Architect

City of Ferndale
2nd Avenue Park Project
Ferndale, WA

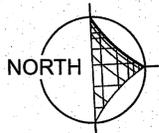


2nd Avenue - Alternate One

Scale: 1" = 20'-0"

REVISIONS

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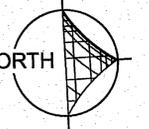
cggroup@cascaadedesigngroup.net

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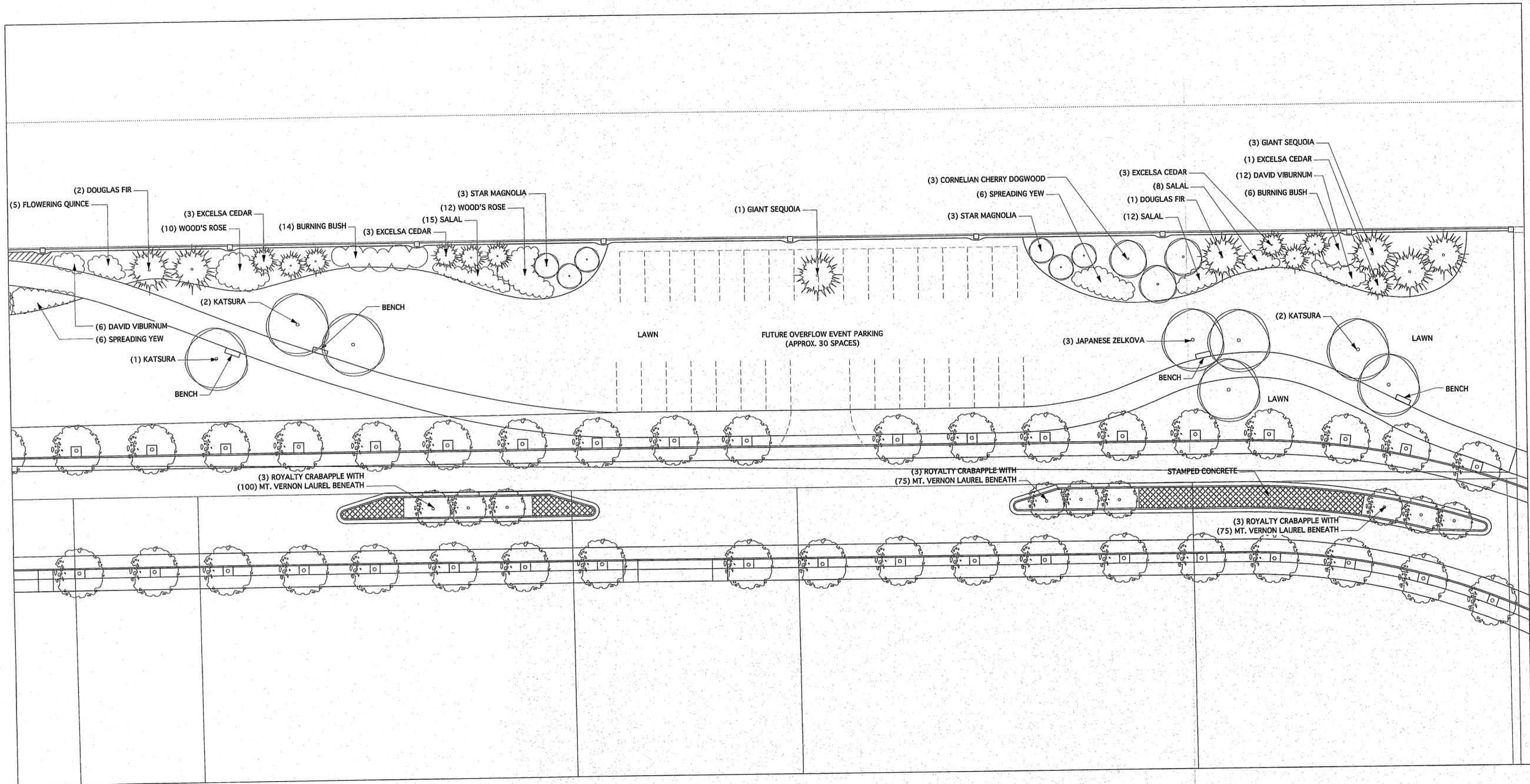
**City of Ferndale
2nd Avenue Park Project
Ferndale, WA**

REVISIONS

DATE: June 25, 2009

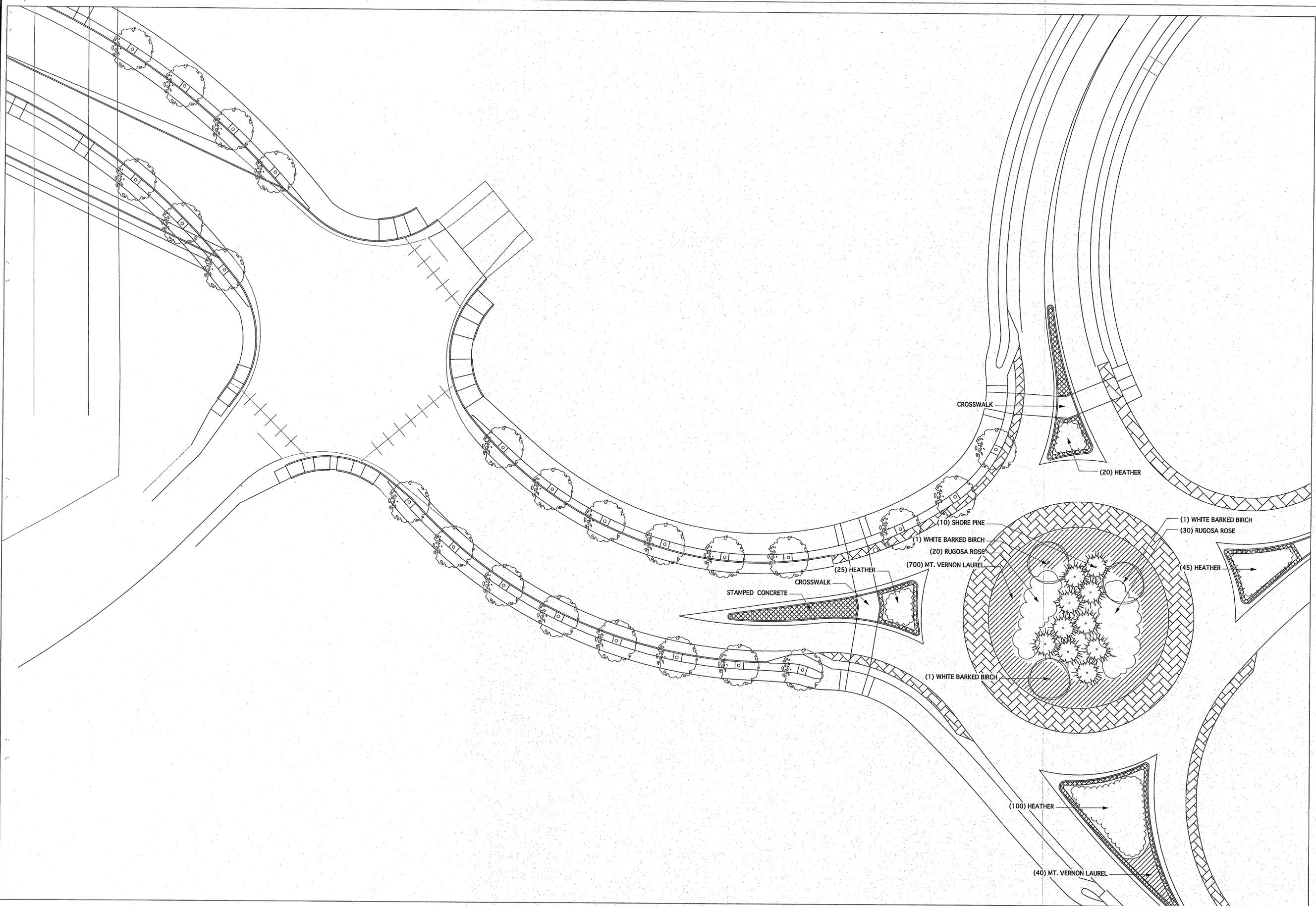


L-3



2nd Avenue - Alternate One

Scale: 1" = 20'-0"



2nd Avenue - Alternate One

Scale: 1" = 20'-0"



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LANDSCAPE ARCHITECT

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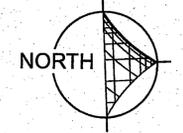
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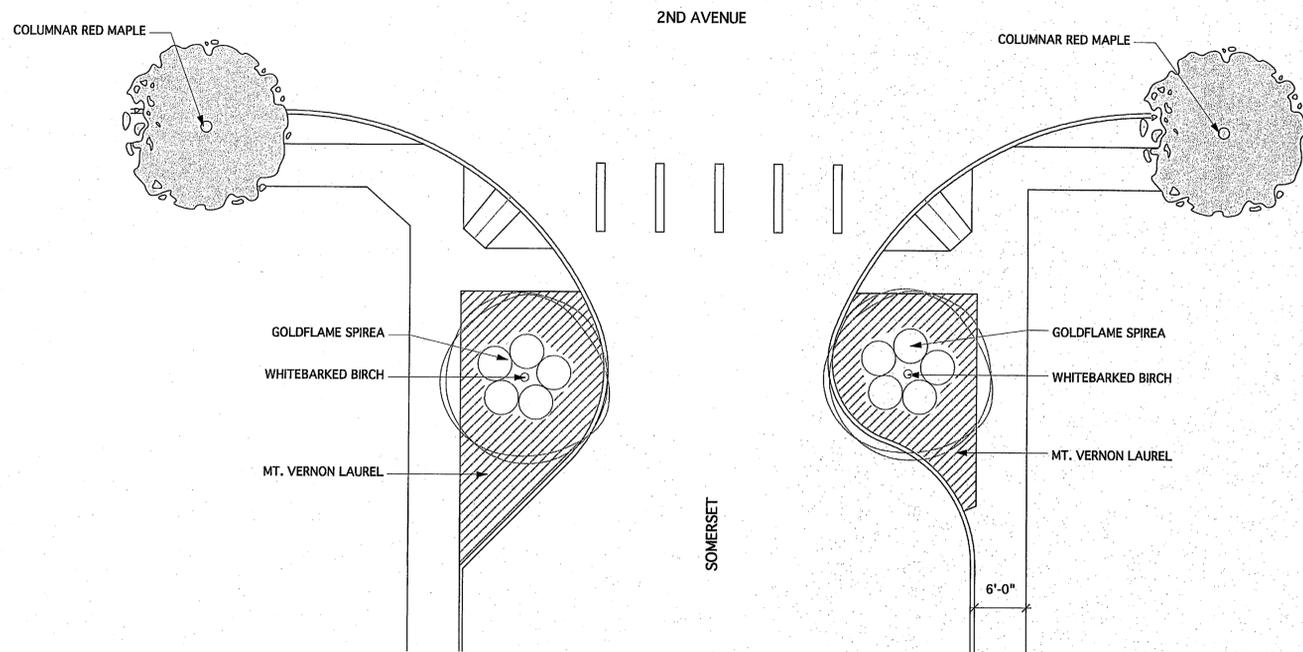
**City of Ferndale
2nd Avenue Park Project
Ferndale, WA**

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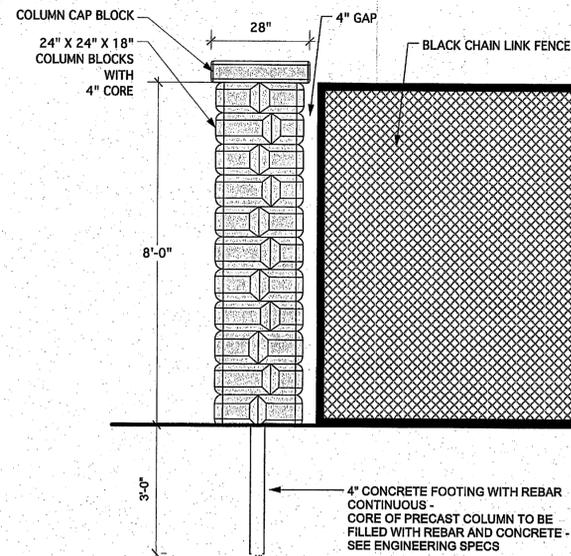
DATE: June 25, 2009



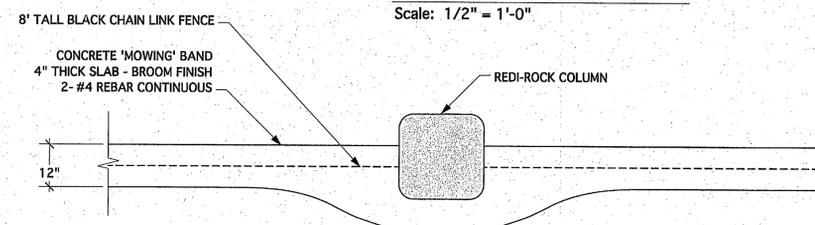
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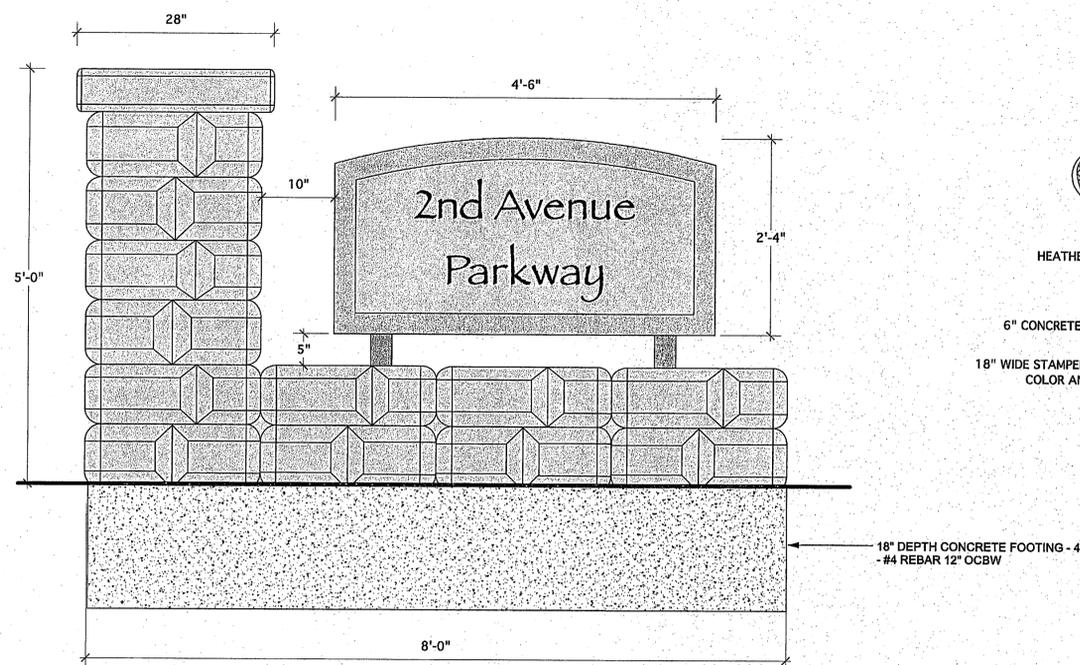
Bulb-Out Planting Beds (Typ.)
Scale: 1" = 10'-0"



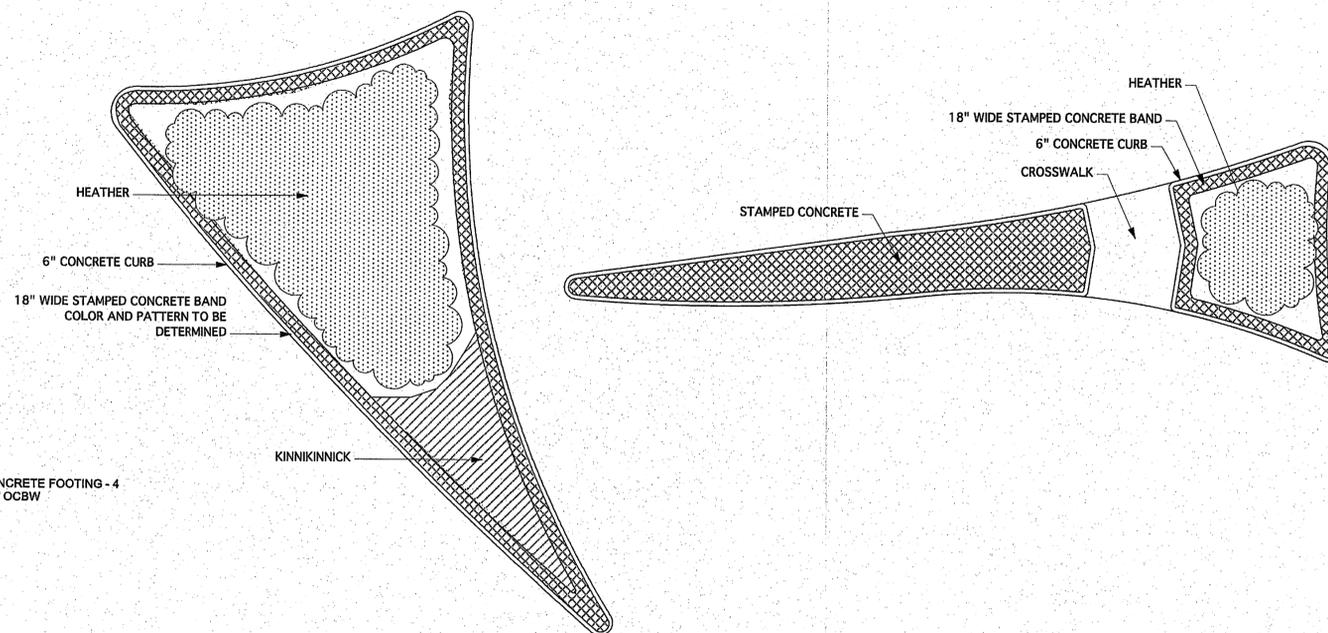
Redi-Rock Column & Fence
Scale: 1/2" = 1'-0"



Redi-Rock Column - Plan View
Scale: 1/2" = 1'-0"



Entry Sign
Scale: 1" = 1'-0"



Roundabout Islands (Typ.)
Scale: 1" = 10'-0"

Project Details
Scale: As Indicated



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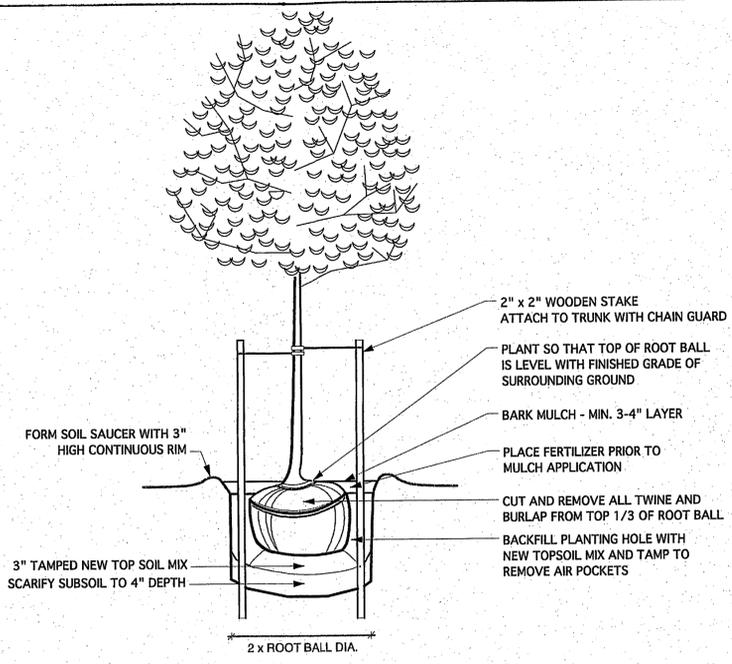
City of Ferndale
2nd Avenue Park Project
Ferndale, WA

REVISIONS

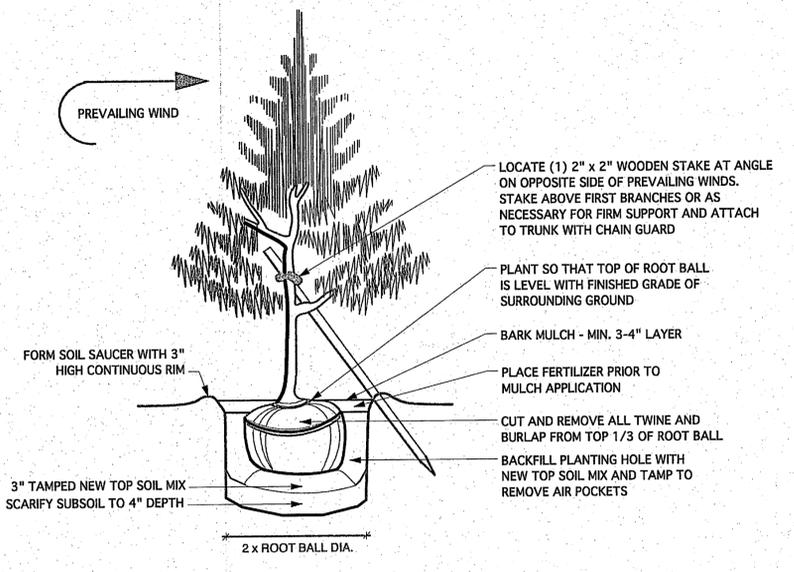
DATE: June 25, 2009

PLANT LIST

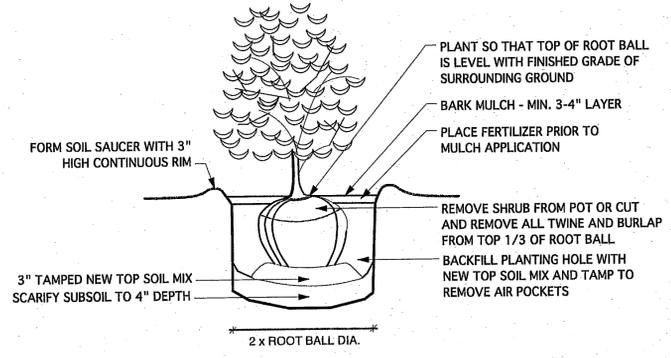
| QTY. | SCIENTIFIC NAME | COMMON NAME | SIZE & SPACING |
|---------------------------|---|-------------------------------|---|
| TREES | | | |
| 12 | <i>Acer circinatum</i> | Vine Maple | 1 1/2" caliper, limbed at 5-6', 15' o.c. when grouped |
| 112 | <i>Acer rubrum</i> 'Bowhall' | Bowhall Columnar Red Maple | 1 1/2" caliper, limbed at 5-6', 30' o.c. |
| 9 | <i>Betula jacquemontii</i> | White Barked Birch | 1 1/2" caliper, limbed at 5-6' |
| 8 | <i>Cercidiphyllum japonicum</i> | Katsura Tree | 1 1/2" caliper, limbed at 5-6', 25' o.c. when grouped |
| 26 | <i>Malus x 'Royalty'</i> | Royalty Flowering Crabapple | 1 1/2" caliper, limbed at 5-6', 15' o.c. |
| 6 | <i>Malus x 'Snowdrift'</i> | Snowdrift Flowering Crabapple | 1 1/2" caliper, limbed at 5-6', 15' o.c. |
| 10 | <i>Pinus contorta</i> | Shore Pine | 7-8' tall, B&B, 15' o.c. |
| 7 | <i>Pseudotsuga menziesii</i> | Douglas Fir | 7-8' tall, B&B, 20' o.c. when grouped |
| 5 | <i>Rhus typhina</i> | Staghorn Sumac | 1 1/2" caliper, limbed at 5-6' |
| 9 | <i>Sequoiadendron giganteum</i> | Giant Sequoia | 7-8' tall, B&B, 20' o.c. when grouped |
| 27 | <i>Thuja plicata</i> 'Excelsa' | Excelsa Cedar | 10-12' tall, B&B, 12' o.c. |
| 9 | <i>Zelkova serrata</i> | Japanese Sawleaf Zelkova | 1 1/2" caliper, limbed at 5-6', 25' o.c. when grouped |
| SHRUBS & FERNS | | | |
| 14 | <i>Chaenomeles japonica</i> 'Cameo' | Cameo Flowering Quince | 3 gal. pot minimum, 5' o.c. |
| 9 | <i>Cornus mas</i> | Cornelian Cherry Dogwood | 5 gal. pot, branched to ground, 12' o.c. |
| 290 | <i>Erica darleyensis</i> 'Kramer's Red' | Kramer's Red Heather | 1 gal. pot, 3' o.c. |
| 90 | <i>Euonymus alata</i> 'Compacta' | Dwarf Winged Burning Bush | 3 gal. pot minimum, 5' o.c. |
| 59 | <i>Gaultheria shallon</i> | Salal | 1 gal. pot, 3' o.c. |
| 8 | <i>Magnolia stellata</i> | Star Magnolia | 5 gal. pot, branched to ground, 10' o.c. when grouped |
| 20 | <i>Polystichum munitum</i> | Sword Fern | 1 gal. pot, 3' o.c. |
| 2160 | <i>Prunus laurocerasus</i> 'Mt. Vernon' | Mt. Vernon Laurel | 1 gal. pot, 2' o.c. |
| 50 | <i>Rosa rugosa</i> | Rugosa Rose | 3 gal. pot minimum, 5' o.c. |
| 73 | <i>Rosa woodsii</i> | Wood's Rose | 3 gal. pot minimum, 5' o.c. |
| 94 | <i>Spiraea x bumalda</i> 'Goldflame' | Goldflame Spiraea | 3 gal. pot minimum, 4' o.c. |
| 81 | <i>Taxus repandens</i> | Repandens Spreading Yew | 3 gal. pot minimum, 6' o.c. |
| 12 | <i>Thuja occidentalis</i> 'Techny' | Techny Arborvitae | 5-6' tall, B&B, 15' o.c. |
| 36 | <i>Viburnum davidii</i> | David Viburnum | 3 gal. pot minimum, 3' o.c. |
| 212 | <i>Arctostaphylos uva-ursi</i> | Kinnickinnick | 1 gal. pot, 3' o.c. |



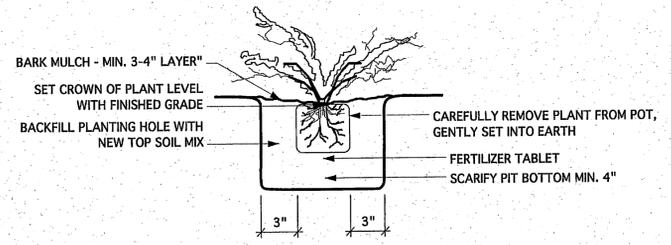
DECIDUOUS TREE PLANTING DETAIL
NTS



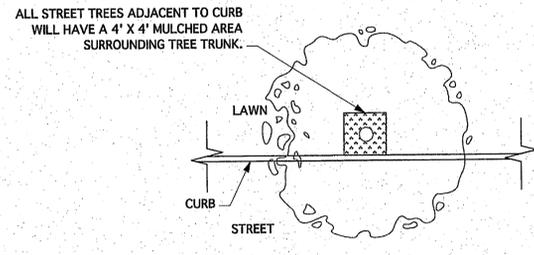
EVERGREEN TREE PLANTING DETAIL
NTS



SHRUB PLANTING DETAIL
NTS



GROUND COVER PLANTING DETAIL
NTS



STREET TREE DETAIL
Scale: 1/8" = 1'-0"

NOTE FOR LANDSCAPE CONTRACTORS:

ALL PLANT MATERIAL MUST CONFORM TO A.N.L.A. (AMERICAN NURSERY AND LANDSCAPE ASSOCIATION) STANDARDS FOR BOTH PLANT SIZE AND FORM. ALL QUANTITIES MUST BE VERIFIED BY THE CONTRACTOR PRIOR TO INSTALLATION & ANY ALL DISCREPANCIES BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT. NO SUBSTITUTIONS SHALL BE MADE WITHOUT THE AUTHORIZATION OF THE LANDSCAPE ARCHITECT.

TOP SOIL SPECIFICATIONS:

GOOD QUALITY SANDY LOAM FREE FROM WEEDS. CONFORM TO ASTM D 5268, PH RANGE 5.5 TO 7. MINIMUM 6 PERCENT ORGANIC MATTER, FREE OF STONES 1 INCH OR LARGER AND OTHER MATERIALS HARMFUL TO PLANT GROWTH. VAN BOVEN TOPSOIL MIX OR EQUIVALENT. CONFIRM SOIL SOURCE AND COMPOSITION WITH LANDSCAPE ARCHITECT FOR APPROVAL BEFORE ORDERING. ALL LAWN AREAS WILL RECEIVE 4-8 INCHES OF TOPSOIL PRIOR TO HYDROSEEDING OR SOD INSTALLATION. ALL PLANTING BEDS WILL RECEIVE APPROXIMATELY 6 INCHES OF TOPSOIL PRIOR TO PLANTING.

TREE ROOT BARRIER NOTES:

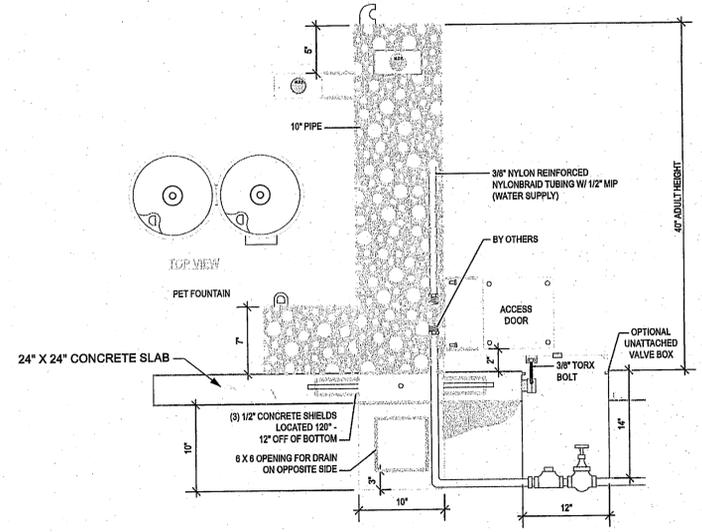
ALL CENTER MEDIAN TREES WILL REQUIRE INSTALLATION OF ROOT BARRIER: DEEP ROOT 18" UNIVERSAL GUIDE UB18-2. 4 PANELS FOR EACH TREE (CREATING A 4'X4' BOX) 18" DEEP. INSTALL AS PER MANUFACTURER'S SPECIFICATIONS. TREES WITHIN 5' OF PAVED AREAS (STREET TREES AND TREES ALONG WALKWAYS) WILL ALSO REQUIRE ROOT BARRIER ON SIDES ADJACENT TO PAVEMENT: DEEP ROOT 18" UNIVERSAL GUIDE UB18-2. (8' TOTAL LENGTH IN 'V' PATTERN).

HYDROSEED LAWN AREAS:

- TO BE INSTALLED ON 4-6" NEW TOPSOIL (SEE TOPSOIL SPECIFICATIONS)
- SEED MIXTURE TO BE THE FOLLOWING: WHATCOM FARMER'S CO-OP 'DEFIANCE XRE' GRASS SEED MIX OR APPROVED EQUIVALENT.
- HYDROSEEDING APPLICATION:
1. HYDROSEED SLURRY TO COMBINE ALL COMPONENTS (WATER, MULCH, SEED, FERTILIZER, TACKIFIER, ETC.) TOGETHER FOR SINGLE APPLICATION OVER PREPARED SOIL SURFACE. HYDRAULICALLY APPLY CELLULOSE FIBER MULCH MATERIAL WITH GRASS SEED HOMOGENEOUSLY IN EMULSION SLURRY.
- 2. EQUIPMENT SHALL HAVE A BUILT IN AGITATION SYSTEM AND OPERATING CAPACITY SUFFICIENT TO AGITATE, SUSPEND AND HOMOGENEOUSLY MIX A SLURRY CONTAINING NOT LESS THAN 20 KILOS (44 LBS.) OF ORGANIC MULCHING AMENDMENT PLUS FERTILIZER, CHEMICAL ADDITIVES AND SOLIDS FOR EACH 100 GALLONS OF WATER.
- 3. CELLULOSE FIBER MULCH: APPLY AT A MINIMUM RATE OF 1500 LBS./ACRES
- 4. FERTILIZERS: BEST HYDRO FEED 20-10-10 OR APPROVED EQUIVALENT APPLIED AT RATE APPROPRIATE FOR PRODUCT.
- 5. ORGANIC TACKIFIER SHALL BE APPLIED AT RATE OF 70 LBS./ACRE.
- 6. HYDRO-SEED MIX SHALL BE APPLIED AT 6 LBS/1000 SQ. FT.
- 7. SPRAY THE AREA WITH A UNIFORM VISIBLE COAT. THE SLURRY SHALL BE APPLIED IN A DOWNWARD DRILLING MOTION VIA A FAN STREAM NOZZLE. INSURE THE UNIFORMITY OF THE HYDROSEED APPLICATION.
- 8. EXERCISE CARE TO PREVENT ANY OF THE SLURRY FROM BEING SPRAYED ONTO ANY HARDSCAPE AREAS INCLUDING CONCRETE WALKS, FENCES, WALLS, BUILDINGS, ETC. REMOVE ALL SLURRY SPRAYED ONTO THESE SURFACES AT THE CONTRACTOR'S EXPENSE.
- 9. DO NOT LEAVE THE HYDROSEEDING SLURRY COMPONENTS IN THE HYDROSEEDING MACHINE FOR MORE THAN TWO (2) HOURS DUE TO POSSIBLE SEED DESTRUCTION. ALL MIXTURES MORE THAN EIGHT (8) HOURS OLD MUST BE DISPOSED OF, OFF-SITE, AT THE CONTRACTOR'S EXPENSE.

SITE FURNISHING:

- All furnishing to be installed on concrete slab, 4" thick as per plan.
- (8) BENCHES: TIMBERFORM 'RENAISSANCE' - MODEL #2806-6 (COLOR: EVERGREEN)
- (2) LITTER CONTAINERS: TIMBERFORM 'RENAISSANCE' - MODEL 2811-DT (COLOR: EVERGREEN) - 4 BOLT PEDestal MOUNT
- (1) DOG DRINKING FOUNTAIN: MOST DEPENDABLE COMPANY - MODEL 3300



MODEL 3300 DB AGGREGATE W/ PET
SHOWN W/ OPTIONAL KIT UVA8 AND COV WLPD



PAUL M. GEORGE
CERTIFICATE NO. 641



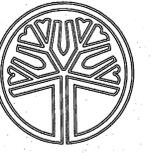
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cgroup@cascadedesigndesign.com

Paul George
Landscape Architect

City of Ferndale
2nd Avenue Park
Ferndale, WA

REVISIONS

DATE: June 25, 2009



STATE OF WASHINGTON
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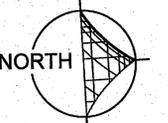
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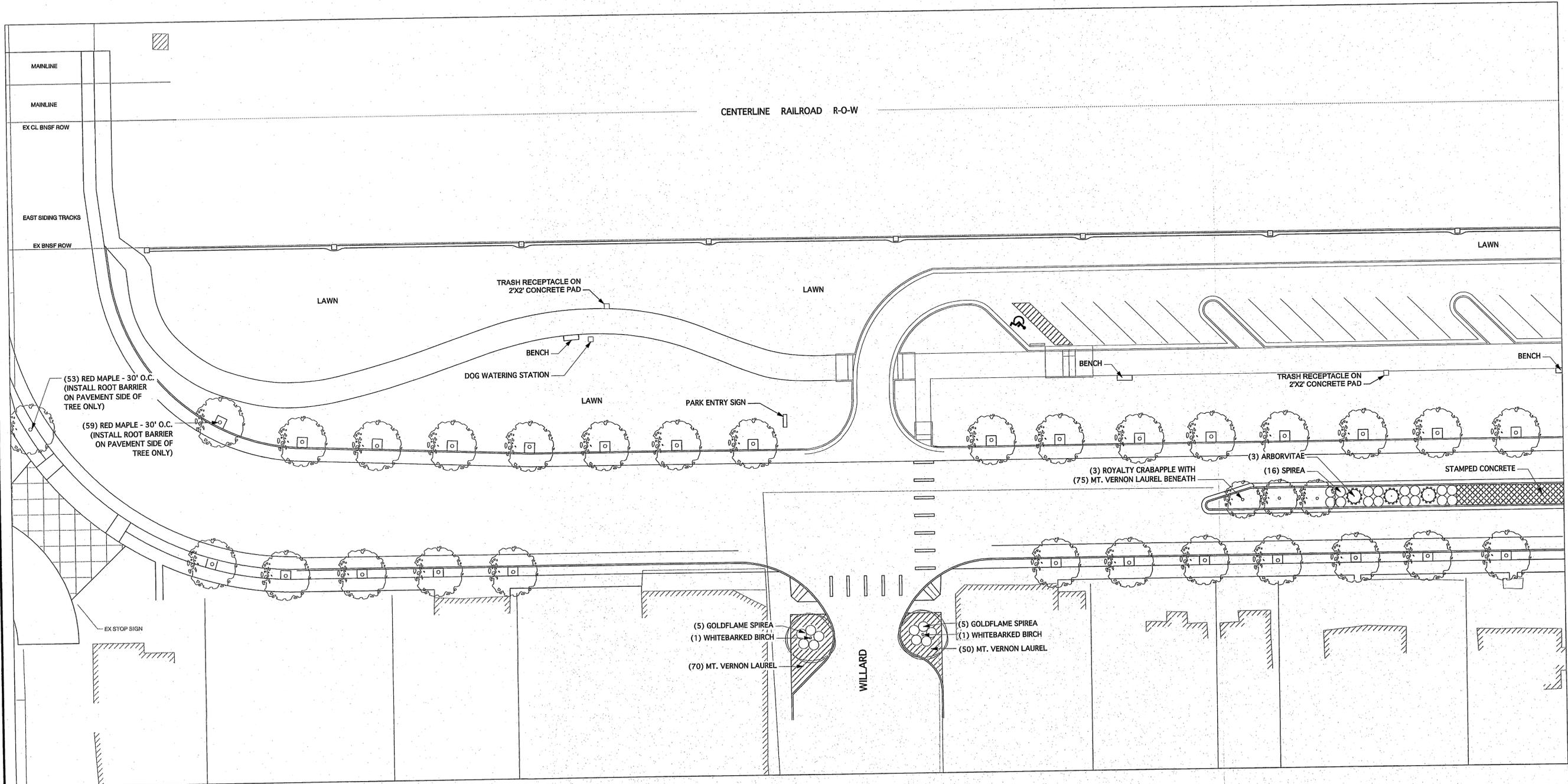
**City of Ferndale
2nd Avenue Park Project
Ferndale, WA**

REVISIONS

DATE: June 25, 2009



L-1



2nd Avenue - Alternate Two

Scale: 1" = 20'-0"



STATE OF WASHINGTON
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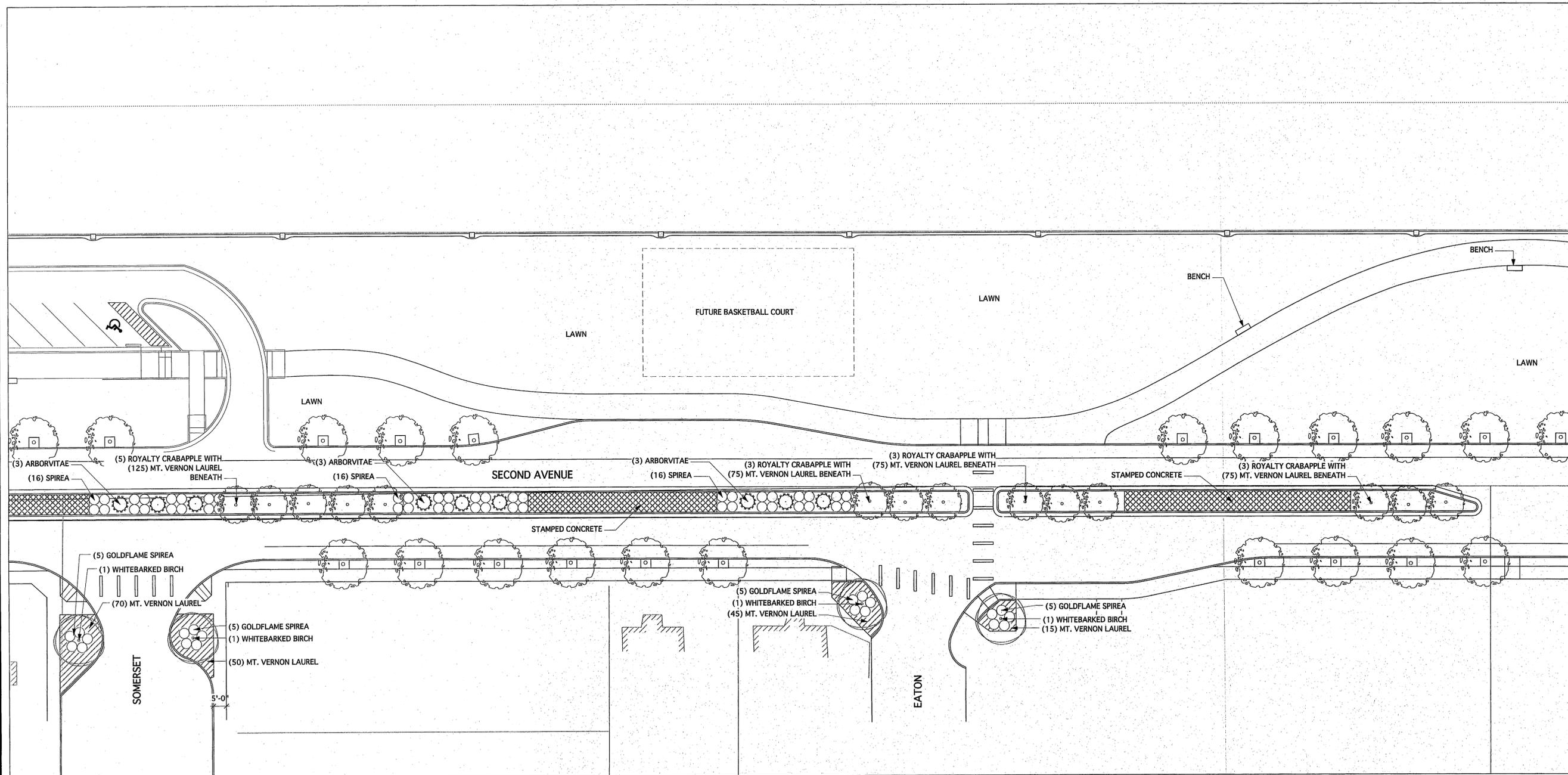
**City of Ferndale
2nd Avenue Park Project
Ferndale, WA**

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L-2



2nd Avenue - Alternate Two

Scale: 1" = 20'-0"



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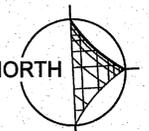
cgroup@cascaadedesigngroup.net

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Landscape Architect

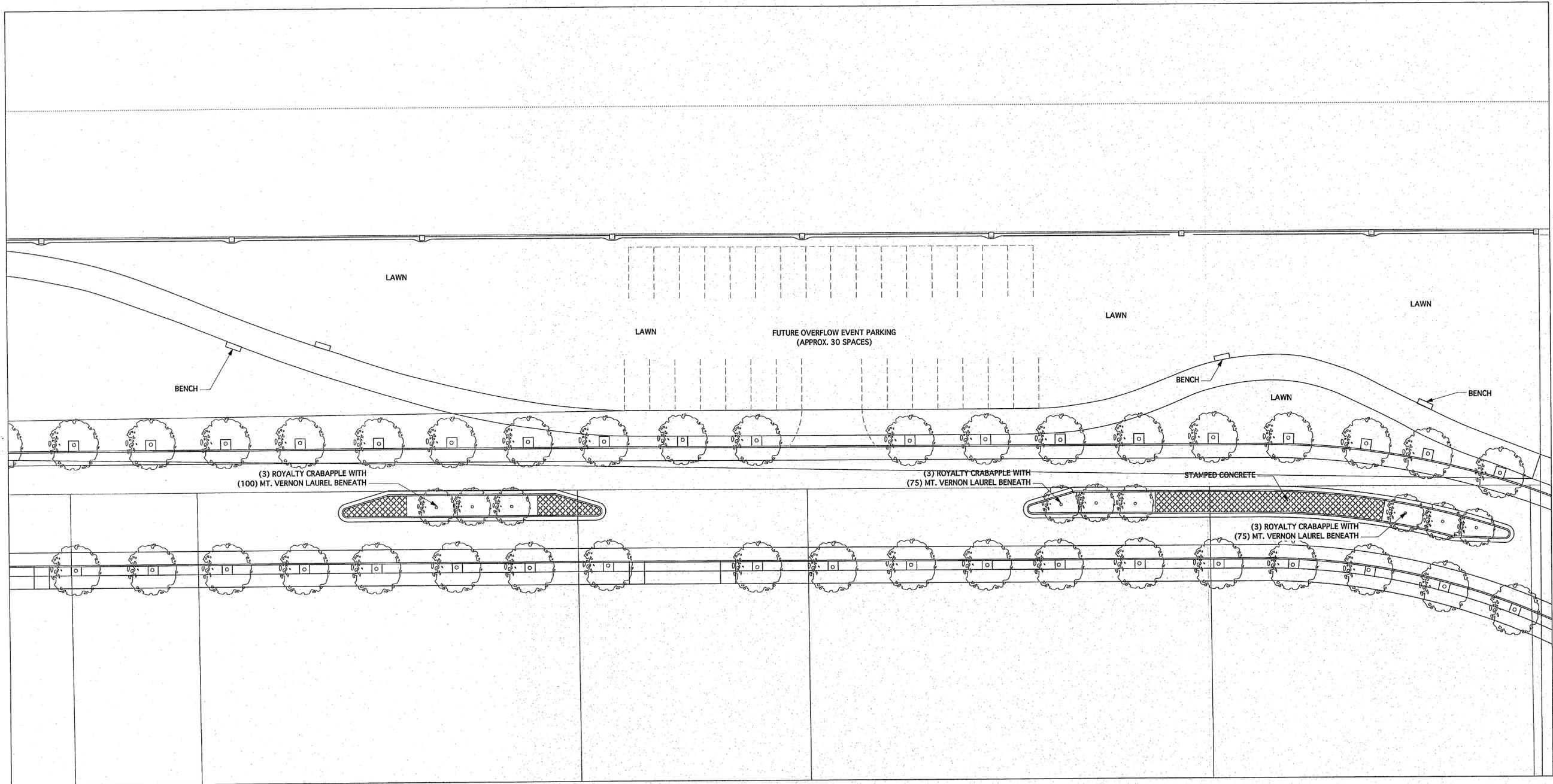
**City of Ferndale
2nd Avenue Park Project
Ferndale, WA**

REVISIONS

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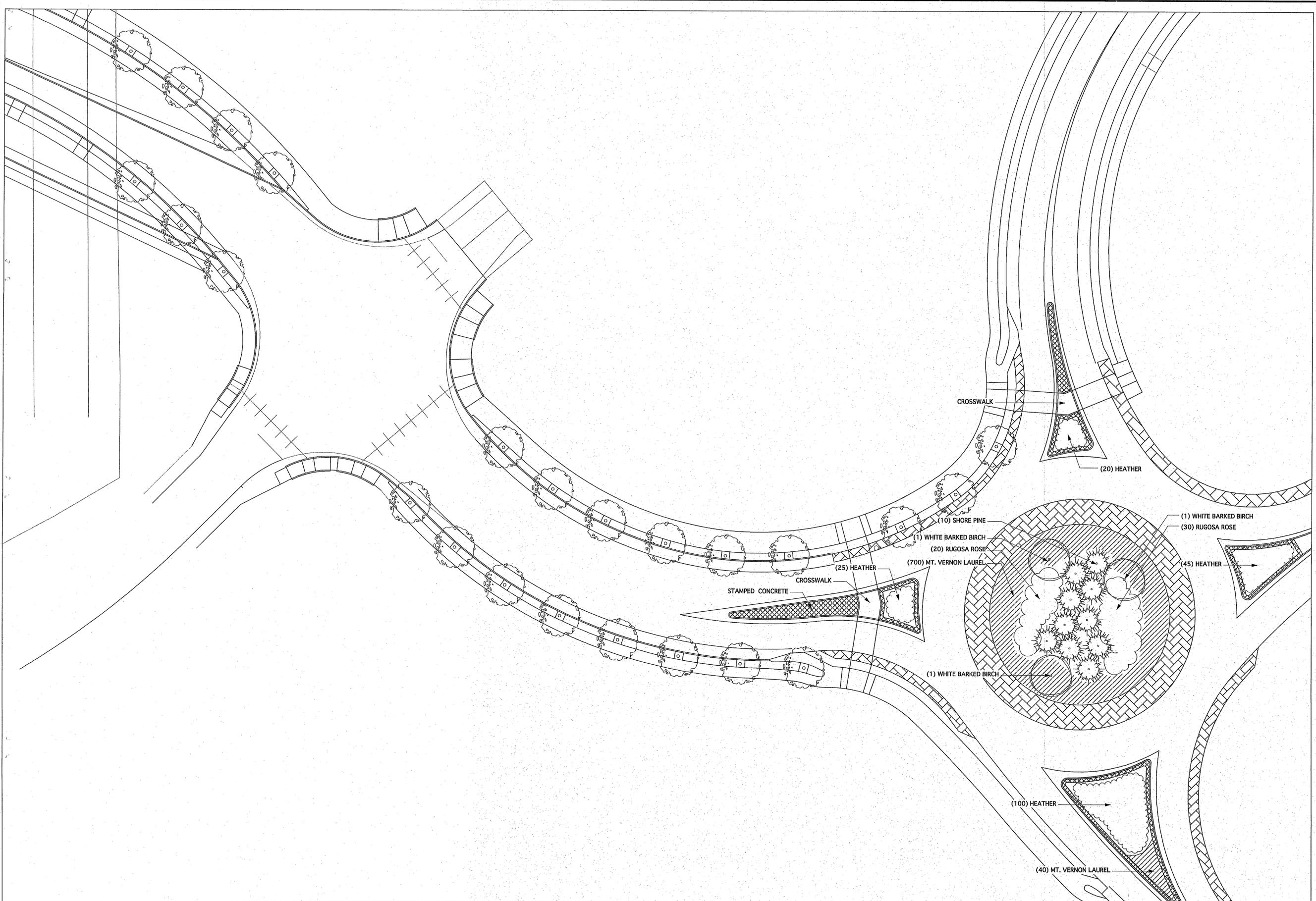


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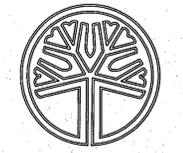


2nd Avenue - Alternate Two

Scale: 1" = 20'-0"



2nd Avenue - Alternate Two
 Scale: 1" = 20'-0"



STATE OF WASHINGTON
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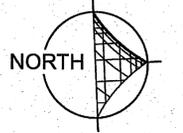
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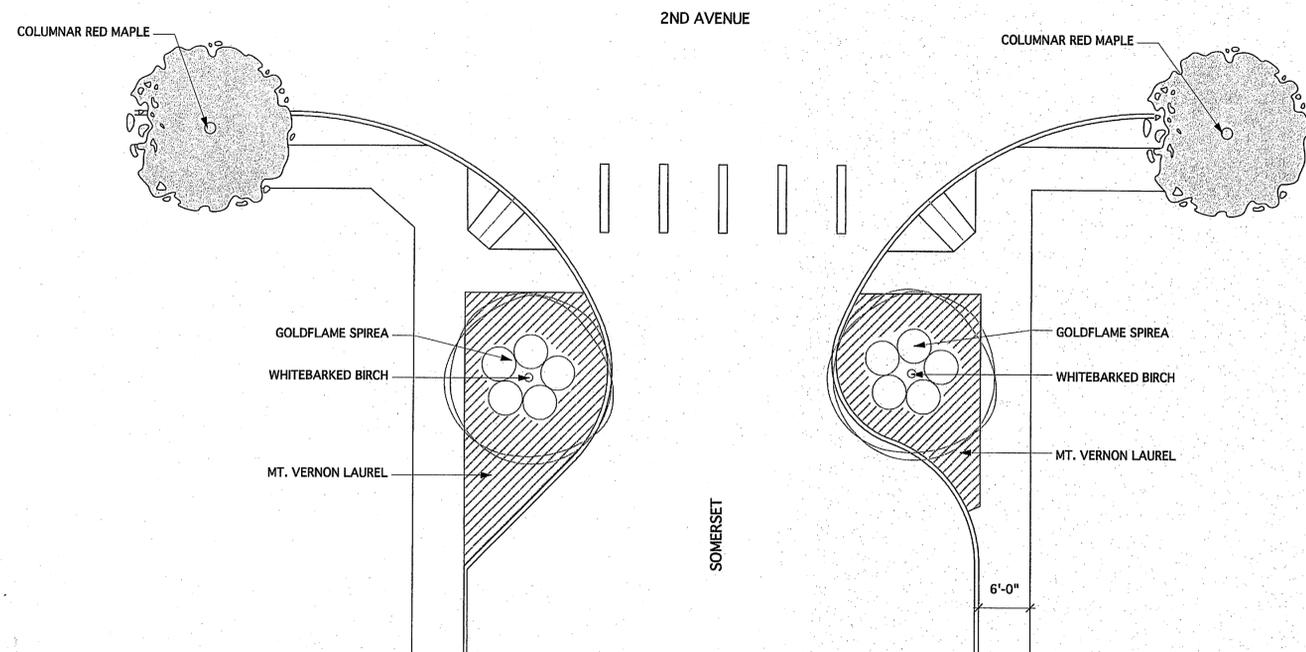
Paul George
 Landscape Architect

City of Ferndale
2nd Avenue Park Project
 Ferndale, WA

REVISIONS

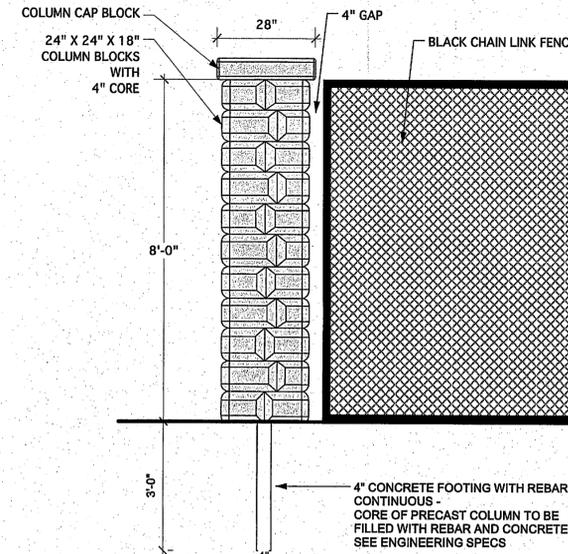
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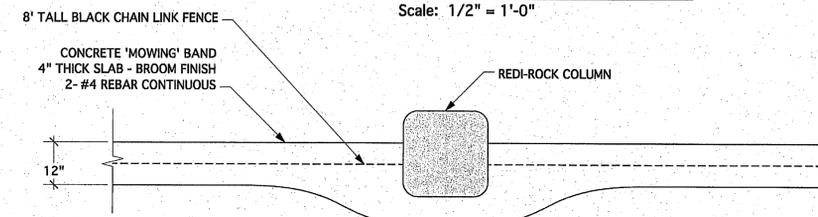
Bulb-Out Planting Beds (Typ.)

Scale: 1" = 10'-0"



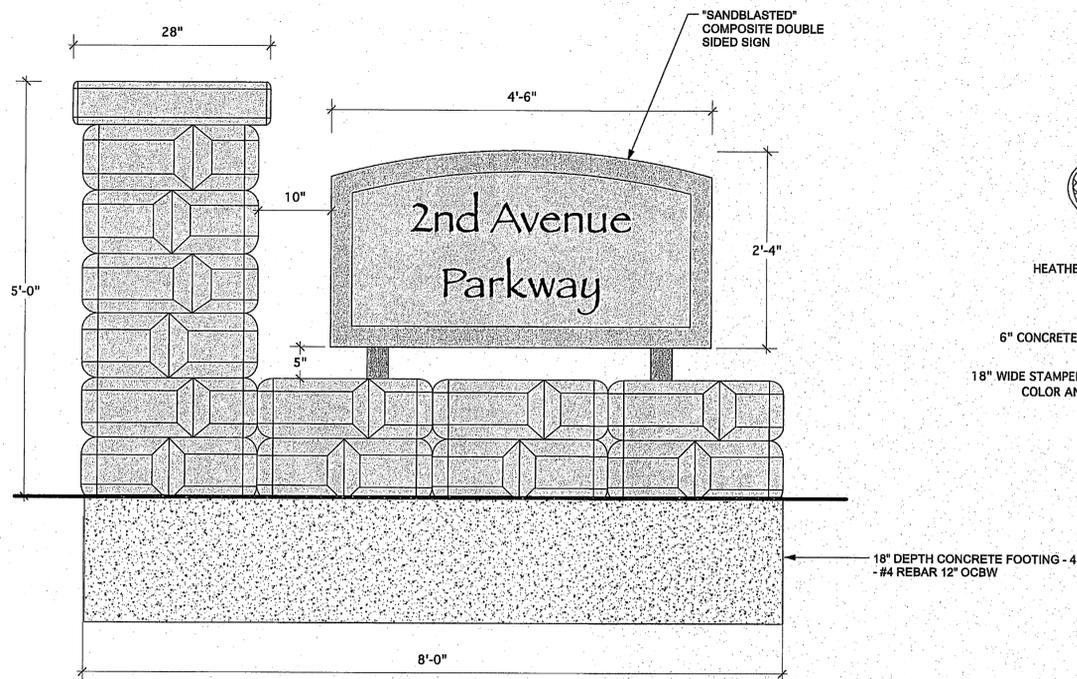
Redi-Rock Column & Fence

Scale: 1/2" = 1'-0"



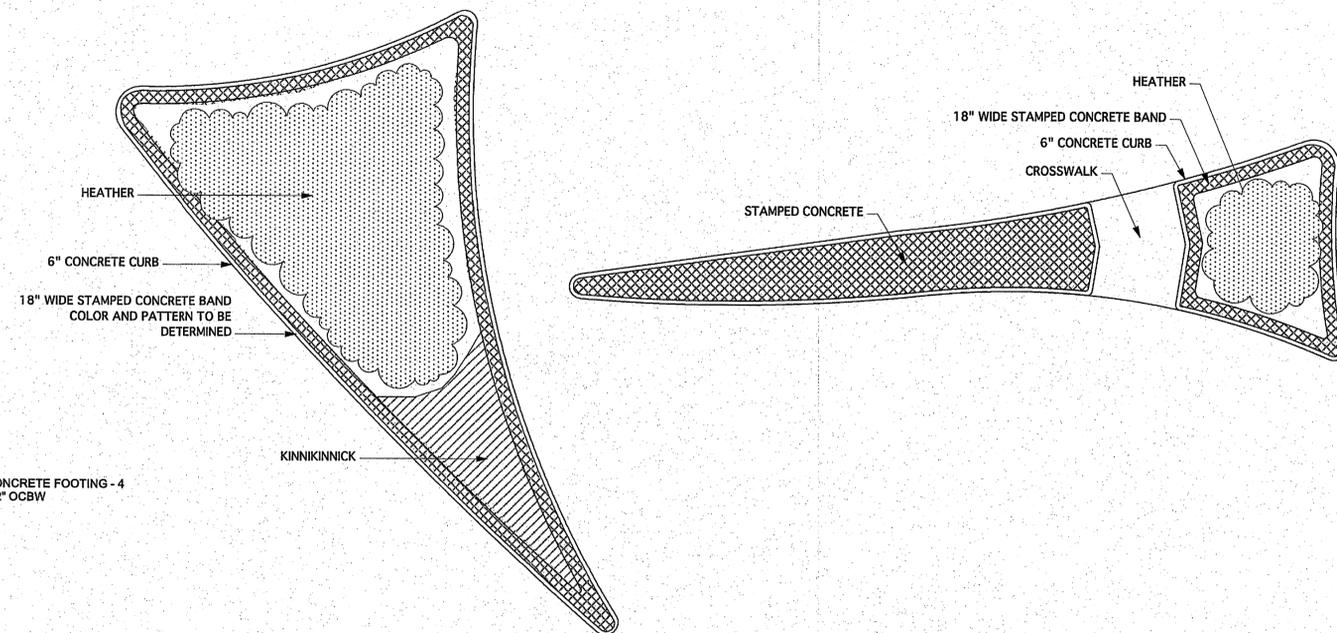
Redi-Rock Column - Plan View

Scale: 1/2" = 1'-0"



Entry Sign

Scale: 1" = 1'-0"



Roundabout Islands (Typ.)

Scale: 1" = 10'-0"

Project Details

Scale: As Indicated



STATE OF WASHINGTON
REGISTERED
LANDSCAPE ARCHITECT

PAUL M. GEORGE
CERTIFICATE NO. 641



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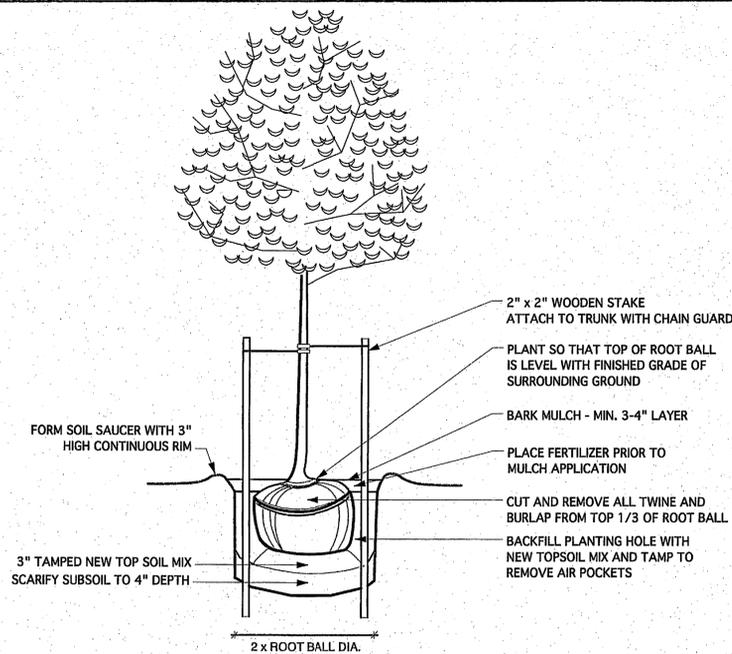
Paul George
Landscape Architect

**City of Ferndale
2nd Avenue Park Project
Ferndale, WA**

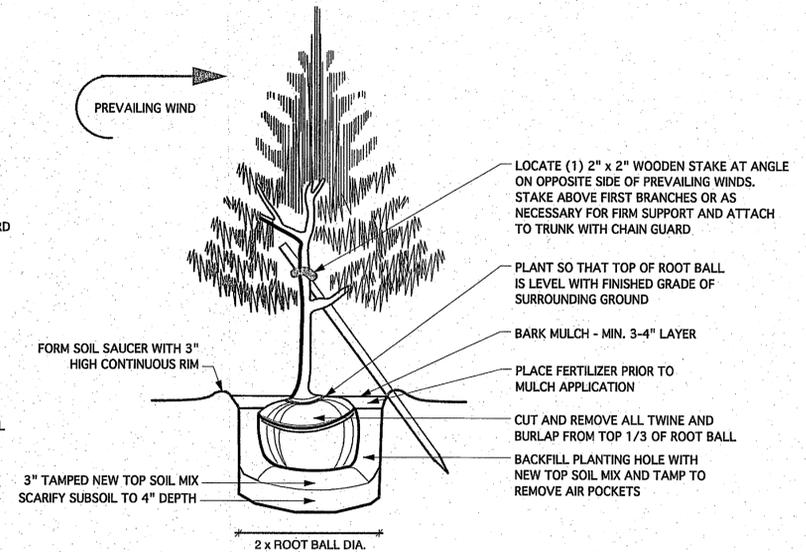
REVISIONS

DATE: June 25, 2009

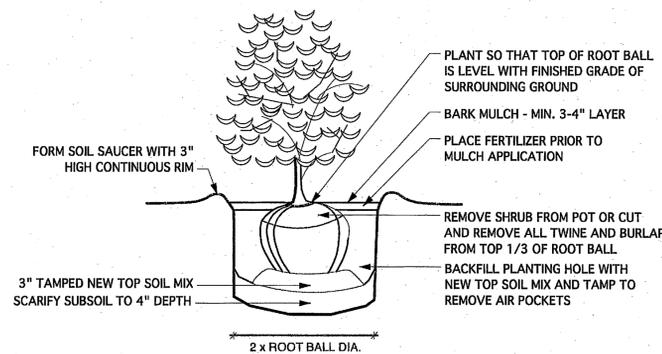
| PLANT LIST | | | |
|---------------------------|---|-----------------------------|--|
| QTY. | SCIENTIFIC NAME | COMMON NAME | SIZE & SPACING |
| TREES | | | |
| 112 | <i>Acer rubrum</i> 'Bowhall' | Bowhall Columnar Red Maple | 1 1/2" caliper, limbed at 5-6', 30' o.c. |
| 9 | <i>Betula Jacquemontii</i> | White Barked Birch | 1 1/2" caliper, limbed at 5-6' |
| 26 | <i>Malus x 'Royalty'</i> | Royalty Flowering Crabapple | 1 1/2" caliper, limbed at 5-6', 15' o.c. |
| 10 | <i>Pinus contorta</i> | Shore Pine | 7-8' tall, B&B, 15' o.c. |
| SHRUBS & FERNS | | | |
| 190 | <i>Erica darleyensis</i> 'Kramer's Red' | Kramer's Red Heather | 1 gal. pot, 3' o.c. |
| 1540 | <i>Prunus laurocerasus</i> 'Mt. Vernon' | Mt. Vernon Laurel | 1 gal. pot, 2' o.c. |
| 94 | <i>Spiraea x bumalda</i> 'Goldflame' | Goldflame Spirea | 3 gal. pot minimum, 4' o.c. |
| 50 | <i>Rosa rugosa</i> | Rugosa Rose | 3 gal. pot, 5' o.c. |
| 12 | <i>Thuja occidentalis</i> 'Techry' | Techry Arborvitae | 5-6' tall, B&B, 15' o.c. |



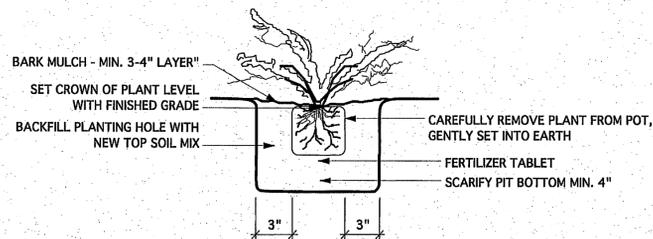
DECIDUOUS TREE PLANTING DETAIL
NTS



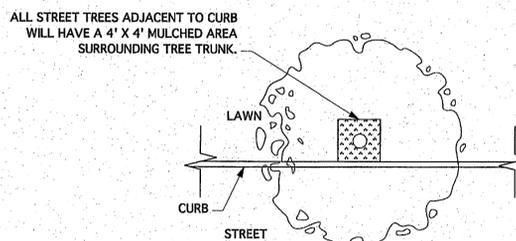
EVERGREEN TREE PLANTING DETAIL
NTS



SHRUB PLANTING DETAIL
NTS



GROUND COVER PLANTING DETAIL
NTS



STREET TREE DETAIL
Scale: 1/8" = 1'-0"

NOTE FOR LANDSCAPE CONTRACTORS:

ALL PLANT MATERIAL MUST CONFORM TO A.N.L.A. (AMERICAN NURSERY AND LANDSCAPE ASSOCIATION) STANDARDS FOR BOTH PLANT SIZE AND FORM. ALL QUANTITIES MUST BE VERIFIED BY THE CONTRACTOR PRIOR TO INSTALLATION & ANY/ALL DISCREPANCIES BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT. NO SUBSTITUTIONS SHALL BE MADE WITHOUT THE AUTHORIZATION OF THE LANDSCAPE ARCHITECT.

TOP SOIL SPECIFICATIONS:

GOOD QUALITY SANDY LOAM FREE FROM WEEDS. CONFORM TO ASTM D 5268, PH RANGE 5.5 TO 7, MINIMUM 6 PERCENT ORGANIC MATTER, FREE OF STONES 1 INCH OR LARGER AND OTHER MATERIALS HARMFUL TO PLANT GROWTH. VAN BOVEN TOPSOIL MIX OR EQUIVALENT. CONFIRM SOIL SOURCE AND COMPOSITION WITH LANDSCAPE ARCHITECT FOR APPROVAL BEFORE ORDERING. ALL LAWN AREAS WILL RECEIVE 4-6 INCHES OF TOPSOIL PRIOR TO HYDROSEEDING OR SOD INSTALLATION. ALL PLANTING BEDS WILL RECEIVE APPROXIMATELY 6 INCHES OF TOPSOIL PRIOR TO PLANTING.

TREE ROOT BARRIER NOTES:

ALL CENTER MEDIAN TREES WILL REQUIRE INSTALLATION OF ROOT BARRIER: DEEP ROOT 18" UNIVERSAL GUIDE UB18-2, 4 PANELS FOR EACH TREE (CREATING A 4'X4' BOX) 18" DEEP. INSTALL AS PER MANUFACTURER'S SPECIFICATIONS.

TREES WITHIN 5' OF PAVED AREAS (STREET TREES AND TREES ALONG WALKWAYS) WILL ALSO REQUIRE ROOT BARRIER ON SIDES ADJACENT TO PAVEMENT: DEEP ROOT 18" UNIVERSAL GUIDE UB18-2, (8' TOTAL LENGTH IN "V" PATTERN).

HYDROSEED LAWN AREAS:

TO BE INSTALLED ON 4-6" NEW TOPSOIL (SEE TOPSOIL SPECIFICATIONS)

SEED MIXTURE TO BE THE FOLLOWING: WHATCOM FARMER'S CO-OP "DEFIANCE XRE" GRASS SEED MIX OR APPROVED EQUIVALENT.

HYDROSEEDING APPLICATION:

1. HYDROSEED SLURRY TO COMBINE ALL COMPONENTS (WATER, MULCH, SEED, FERTILIZER, TACKIFIER, ETC.) TOGETHER FOR SINGLE APPLICATION OVER PREPARED SOIL SURFACE. HYDRAULICALLY APPLY CELLULOSE FIBER MULCH MATERIAL WITH GRASS SEED HOMOGENEOUSLY IN EMULSION SLURRY.

2. EQUIPMENT SHALL HAVE A BUILT IN AGITATION SYSTEM AND OPERATING CAPACITY SUFFICIENT TO AGITATE, SUSPEND AND HOMOGENEOUSLY MIX A SLURRY CONTAINING NOT LESS THAN 20 KILOS (44 LBS.) OF ORGANIC MULCHING AMENDMENT PLUS FERTILIZER, CHEMICAL ADDITIVES AND SOLIDS FOR EACH 100 GALLONS OF WATER.

3. CELLULOSE FIBER MULCH: APPLY AT A MINIMUM RATE OF 1500 LBS./ACRES

4. FERTILIZERS: BEST HYDRO FEED 20-10-10 OR APPROVED EQUIVALENT APPLIED AT RATE APPROPRIATE FOR PRODUCT.

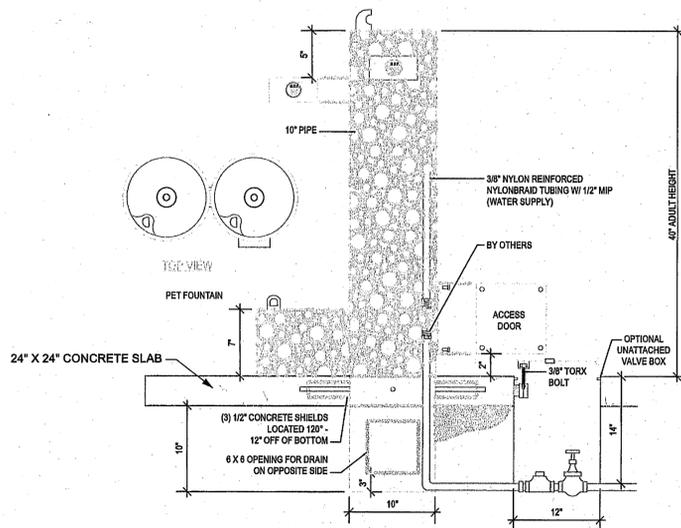
5. ORGANIC TACKIFIER SHALL BE APPLIED AT RATE OF 70 LBS./ACRE.

6. HYDRO-SEED MIX SHALL BE APPLIED AT 6 LBS/1000 SQ. FT.

7. SPRAY THE AREA WITH A UNIFORM VISIBLE COAT. THE SLURRY SHALL BE APPLIED IN A DOWNWARD DRILLING MOTION VIA A FAN STREAM NOZZLE. INSURE THE UNIFORMITY OF THE HYDROSEED APPLICATION.

8. EXERCISE CARE TO PREVENT ANY OF THE SLURRY FROM BEING SPRAYED ONTO ANY HARDSCAPE AREAS INCLUDING CONCRETE WALKS, FENCES, WALLS, BUILDINGS, ETC. REMOVE ALL SLURRY SPRAYED ONTO THESE SURFACES AT THE CONTRACTOR'S EXPENSE.

9. DO NOT LEAVE THE HYDROSEEDING SLURRY COMPONENTS IN THE HYDROSEEDING MACHINE FOR MORE THAN TWO (2) HOURS DUE TO POSSIBLE SEED DESTRUCTION: ALL MIXTURES MORE THAN EIGHT (8) HOURS OLD MUST BE DISPOSED OF, OFF-SITE, AT THE CONTRACTOR'S EXPENSE.



MODEL 3300 DB AGGREGATE W/PET
SHOWN W/ OPTIONAL KIT UAWB AND COV W/LPD

SITE FURNISHING:

All site furnishings will be installed on 4" thick concrete pad as per plans.

- (8) BENCHES: TIMBERFORM "RENAISSANCE" - MODEL #2806-8 (COLOR: EVERGREEN)
- (2) LITTER CONTAINERS: TIMBERFORM "RENAISSANCE" - MODEL 2811-DT (COLOR: EVERGREEN) - 4 BOLT PEDESTAL MOUNT
- (1) DOG DRINKING FOUNTAIN: MOST DEPENDABLE COMPANY - MODEL 3300



STATE OF WASHINGTON
REGISTERED
LANDSCAPE ARCHITECT

PAUL M. GEORGE
CERTIFICATE NO. 841



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Paul George
Landscape Architect

City of Ferndale
2nd Avenue Park
Ferndale, WA

REVISIONS

DATE: June 25, 2009