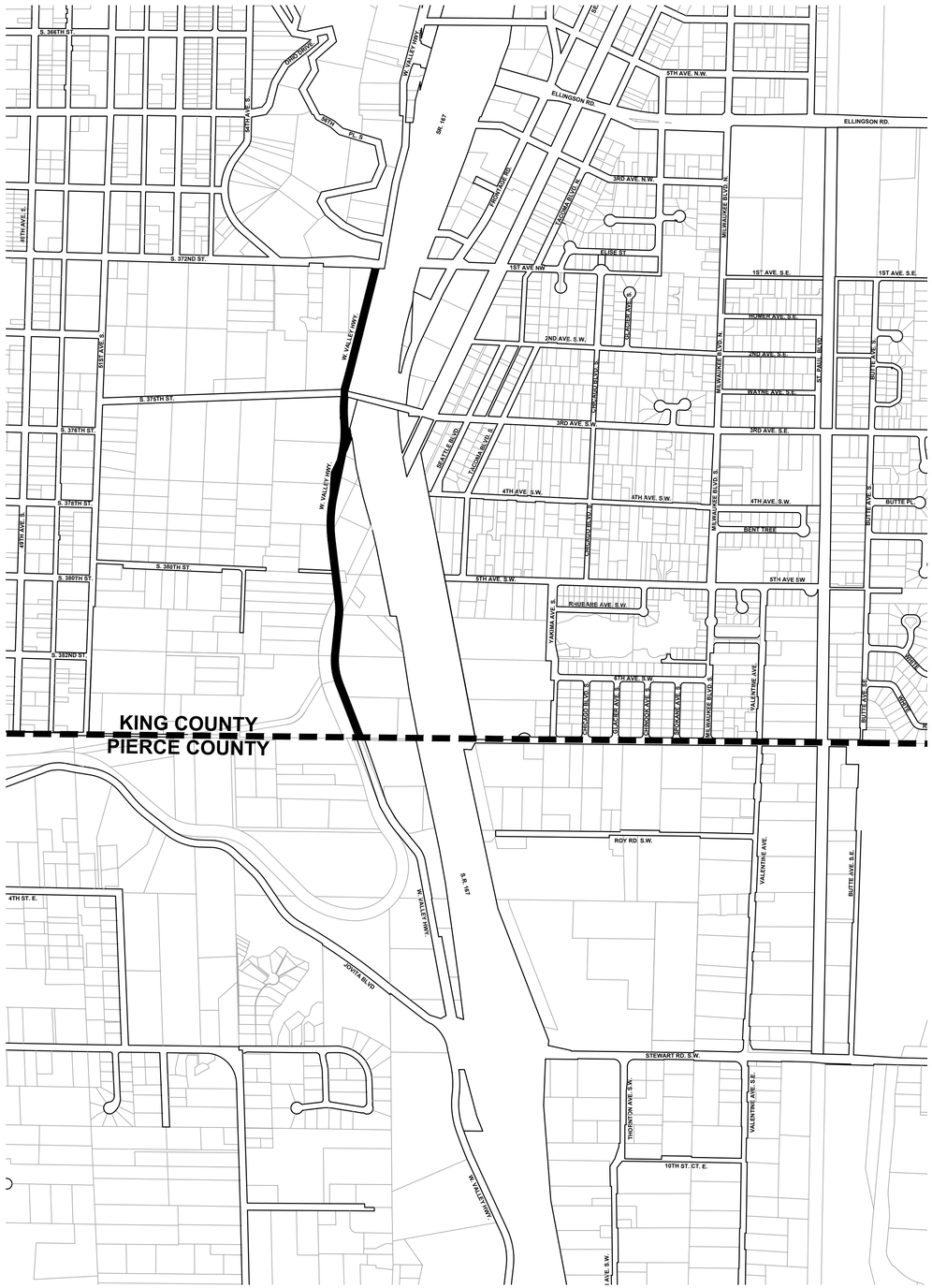
CITY OF PACIFIC
WEST VALLEY HIGHWAY
ROAD IMPROVEMENT PROJECT

PACIFIC, WASHINGTON
King County, Washington
Federal Aid No. STPUL-1042(005)



LOCATION MAP
1"=600'

Know what's **below.**
Call before you dig.

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39	W-39	WALLS
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42	W-42	WALLS
43	W-43	WALLS
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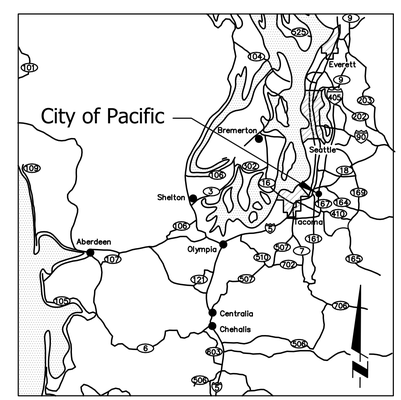
47	W-47	WALLS
48	W-48	WALLS



VICINITY MAP

100% DESIGN SUBMITTAL

WILLIAM J. FIERST
STATE OF WASHINGTON
41803
REGISTERED
PROFESSIONAL ENGINEER
02/19/2019

NOTICE
ALTERATION OF THIS DOCUMENT SHALL INVALIDATE THE PROFESSIONAL SEAL AND SIGNATURE. PUBLICATION OF THIS DOCUMENT DOES NOT DEROGATE FORM RESERVED OWNERSHIP RIGHTS IN IT. THIS DOCUMENT IS FOR USE ONLY FOR THE PROJECT IDENTIFIED IN THE TITLE BLOCK AND IS NOT TO BE USED FOR REPAIR, REMODEL OR ADDITION TO THAT PROJECT OR FOR ANY OTHER PROJECT.

AHBL
TACOMA · SEATTLE · SPOKANE · TRI-CITIES
2215 North 30th Street, Suite 300 Tacoma, WA 98403
253.383.2422 TEL 253.383.2572 FAX www.ahbl.com WEB

IF SHEET MEASURES LESS THAN 22" X 34" IT IS A REDUCED PRINT. REDUCE SCALE ACCORDINGLY.

NO.	REVISIONS	DATE	BY

JOB NO. 2130176.10, 2140392.10 DRAWING NO.

City of Pacific
100 3rd Avenue Southeast
Pacific, WA 98047
Phone: (253)929-1110
Fax: (253)887-9910

DESIGNED A. TURPIN
DRAWN A. TURPIN
CHECKED A. BRAUN
APPROVED W. FIERST
SCALE AS NOTED
DATE FEBRUARY 2019

WEST VALLEY HIGHWAY ROADWAY IMPROVEMENT PROJECT
COVER SHEET

PROJECT/APPLICANT
CITY OF PACIFIC
100 3rd AVENUE SE
PACIFIC, WASHINGTON 98047

SHEET NO. G-1

GENERAL CONSTRUCTION NOTES

1. ALL WORKMANSHIP AND MATERIALS WILL BE IN ACCORDANCE WITH CITY OF PACIFIC STANDARDS, CITY OF PACIFIC MUNICIPAL CODE, ORDINANCES AND CITY COUNCIL OR HEARING EXAMINER CONDITIONS OF PROJECT APPROVAL. THESE DOCUMENTS ARE SUPPLEMENTED BY THE MOST CURRENT EDITION OF THE STATE OF WASHINGTON STANDARD SPECIFICATIONS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION AND STANDARD PLANS.
2. ALL MATERIALS USED FOR CONSTRUCTION SHALL BE NEW AND UNDAMAGED AND SHALL BE MADE AVAILABLE FOR INSPECTION AND APPROVAL BY THE CITY OF PACIFIC PRIOR TO INSTALLATION. THE CONTRACTOR SHALL PROVIDE THE CITY OF PACIFIC WITH A CERTIFICATE OF MATERIALS FROM THE SUPPLIER, IF REQUESTED. ALL WORK AND MATERIALS THAT DO NOT MEET THE ABOVE SPECIFICATIONS MUST BE REMOVED AS DIRECTED BY THE PROJECT INSPECTOR.
3. THE CONTRACTOR WILL BE RESPONSIBLE FOR ALL TRAFFIC CONTROL IN ACCORDANCE WITH U.S. DEPARTMENT OF TRANSPORTATION MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). PRIOR TO DISRUPTION OF ANY TRAFFIC, TRAFFIC CONTROL PLANS WILL BE PREPARED AND SUBMITTED TO THE CITY FOR APPROVAL. NO WORK WILL COMMENCE UNTIL ALL APPROVED TRAFFIC CONTROL IS IN PLACE. ALL FLAGGERS MUST HAVE FLAGGING CERTIFICATES AND MUST HAVE ATTENDED A FLAGGING COURSE OR AN OFF DUTY POLICE OFFICER IS REQUIRED. THE JOB WILL BE SHUT DOWN IF ANY UNCERTIFIED PEOPLE ARE FLAGGING. A STOP WORK ORDER WILL BE GIVEN AND WORK WILL NOT PROCEED UNTIL A CERTIFIED PERSON IS FLAGGING.
4. TEMPORARY EROSION/WATER POLLUTION MEASURES SHALL BE REQUIRED IN ACCORDANCE WITH SECTION 1-07.15 OF THE STANDARD SPECIFICATIONS AND APPLICABLE REQUIREMENTS OF THE KING COUNTY SURFACE WATER DESIGN MANUAL.
5. DURING CONSTRUCTION, ALL PUBLIC STREETS ADJACENT TO THE PROJECT SHALL BE KEPT CLEAN OF MATERIAL DEPOSITS RESULTING FROM ON-SITE CONSTRUCTION, AND EXISTING STRUCTURES SHALL BE PROTECTED.
6. THE DEVELOPER AND THE CONTRACTOR SHALL COMPLY WITH ALL OTHER PERMITS AND OTHER REQUIREMENTS BY THE CITY OF PACIFIC OR OTHER GOVERNING AUTHORITY OR AGENCY AS MAY BE APPLICABLE.
7. A PRE-CONSTRUCTION MEETING SHALL BE HELD WITH THE CITY PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE THE CITY WITH A CONSTRUCTION SCHEDULE AND A COPY OF ALL PERMITS ISSUED BY AGENCIES OTHER THAN THE CITY.
8. A COPY OF THE APPROVED PLANS AND SWPPP SHALL BE AVAILABLE ON THE SITE AT ALL TIMES DURING CONSTRUCTION.
9. ALL PROJECT ELEMENTS SHALL BE STAKED BY A LICENSED PROFESSIONAL QUALIFIED TO PERFORM THE WORK.
10. THE CONTRACTOR SHALL CALL UNDERGROUND LOCATE LINE 811 MINIMUM 72 HOURS PRIOR TO ANY EXCAVATIONS. THE LOCATION OF UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR IT'S REPRESENTATIVES. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL UTILITIES PRIOR TO COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY DAMAGE WHICH MIGHT BE OCCASIONED BY THE CONTRACTORS FAILURE TO EXACTLY LOCATE PRESERVE ANY AND ALL UNDERGROUND UTILITIES. THE CITY, THE OWNER, AND THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY IF ANY CONFLICT EXISTS.
11. ALL UTILITY TRENCHES EXCAVATED IN THE RIGHT-OF-WAY SHALL BE BACKFILLED WITH 5/8-INCH CRUSHED ROCK. THE TRENCHES SHALL BE BACKFILLED AND COMPACTED TO 95% DENSITY IN ACCORDANCE WITH WSDOT 7-08.3(3).
12. THE CITY OF PACIFIC ALLOWS WORK FROM 7:00 A.M. TO 7:00 P.M, SEVEN DAYS A WEEK. IF WORK IS DONE ON WEEKENDS, PLEASE INFORM THE CITY OF PACIFIC SO THAT AN INSPECTOR CAN BE AVAILABLE ON SITE. CONTRACTOR WILL BE BILLED FOR OVERTIME.
13. INSPECTION: ALL ASPECTS OF THIS PROJECT WILL BE INSPECTED INCLUDING PIPING, BACKFILL, SUB-GRADE, CONCRETE AND ASPHALT, AS WELL AS FORMS, CURB, GUTTER AND SIDEWALK. IF A PORTION GETS BACKFILLED BEFORE INSPECTION, THE CONTRACTOR WILL DIG UP THAT PORTION FOR INSPECTION. 24-HOUR NOTICE REQUIRED. KNOW THE SCHEDULE AND LET THE CITY KNOW. CALL 48-HOURS BEFORE THE FOLLOWING:
    A. FORM INSPECTION CONTACT (253)929-1110.
    B. PRIOR TO WORK START-UP.
    C. PRIOR TO ANY UTILITY CONSTRUCTION IN THE RIGHT OF WAY.
    D. PRIOR TO POURING CAST-IN-PLACE CONCRETE STRUCTURES.
    E. PRIOR TO PLACING ANY CRUSHED ROCK ON ROADWAY SUB GRADE.
    F. PRIOR TO PLACING CURB, GUTTERS AND SIDEWALKS.
    G. PRIOR TO ASPHALT PAVING.
14. ALL COMPACTION TEST SHALL BE APPROVED BY THE CITY OF PACIFIC ENGINEER AND/OR INSPECTOR PRIOR TO PLACING OF CRUSHED SURFACING, ASPHALT, CURB, GUTTER, SIDEWALK (INCLUDING TRENCH RESTORATION WHEN TEST MAY BE REQUIRED IN EACH LIFT.
    A. ITEMS TO BE COMPACTION TESTED WILL INCLUDE THE PIPE BEDDING (SECTION 7-08.3(1)C), BACKFILL (SECTION 7-08.3(3) AND SUB-GRADE FOR SURFACING (SECTION 2-06.3(2)) AND ASPHALT (SECTION 5-04.3(10)B).
    B. CITY OF PACIFIC MAY REQUIRE ADDITIONAL TESTS ON SUB-GRADE, TRENCHES, CONCRETE, OR ASPHALT. THE COSTS OF TESTING SHALL BE PAID FOR BY THE DEVELOPER.
    C. ROADWAY EMBANKMENT AND SUBGRADE CONSTRUCTION:
        a. CRUSHED SURFACING SHALL BE COMPACTED TO 95% OF MAXIMUM DENSITY. NO RECYCLED MATERIAL ALLOWED.
        b. EMBANKMENT AND SUB GRADE MUST BE COMPACTED TO 95% OF MAXIMUM DENSITY.
        c. PROPER MOISTURE MUST BE MAINTAINED THROUGHOUT PLACING AND COMPACTING.
        d. COMPACTION TESTING TO BE PERFORMED BY AN INDEPENDENT LAB. USE A "MODIFIED PROCTOR".
    D. TRENCHES IN DEVELOPED RIGHT-OF-WAY:
        a. SEE CITY OF PACIFIC STANDARD CONSTRUCTION DETAILS AND SECTION 7 OF THE CURRENT WSDOT SPECIFICATIONS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION.
        b. PIPE ZONE SHALL BE COMPACTED TO 90% OF MAXIMUM DENSITY.
        c. TRENCH ZONE SHALL BE COMPACTED TO 95% OF MAXIMUM DENSITY IN 12-INCH LIFTS.
        d. CRUSHED SURFACING SHALL BE COMPACTED TO 95% OF MAXIMUM DENSITY.
15. RESTORATION OF RIGHT-OF-WAY:
    A. CONTRACTOR MUST LEAVE THE RIGHT-OF-WAY, EQUAL TO EXISTING OR BETTER CONDITION
    B. PLACE COMPACTED TOPSOIL (SECTION 9-14.1(1), (2) AND (3)) AND SEED AL AREAS DISTURBED BY EXCAVATION. (SECTION 9-14.2). ALL DRAINAGE SYSTEMS MUST BE FULLY CLEANED, RESTORED AND OPERATIONAL BEFORE FINAL ACCEPTANCE. (SECTION 7-07.3).
16. FINAL INSPECTION AND ACCEPTANCE:
    A. SEE SECTION 1-05.11.
    B. WHEN CONTRACTOR HAS COMPLETED ALL OF THE WORK ON THE APPROVED PLANS, THE CONTRACTOR WILL NOTIFY THE CITY. THE CITY ENGINEER, CITY INSPECTOR, CONTRACTOR AND OTHER CITY OF PACIFIC DEPARTMENTS WILL WALK THE SITE AND CREATE A PUNCH LIST. THE CONTRACTOR WILL COMPLETE THE PUNCH LIST AND CHECK OFF EACH ITEM, THEN RETURN IT TO THE INSPECTOR FOR RE-INSPECTION. THE INSPECTOR WILL VERIFY THAT ITEMS ON WALK THROUGH ARE COMPLETED.
    C. THE CITY WILL NOT MAKE THE FINAL INSPECTION UNTIL THE PHYSICAL WORK REQUIRED BY THE CONTRACT AND APPROVED PLANS, INCLUDING FINAL CLEANUP AND LL WORK ORDERED BY THE CITY ENGINEER, HAS BEEN COMPLETED.
    D. FINAL APPROVAL OF THE PROJECT WILL NOT BE GRANTED UNTIL "AS BUILT" DRAWINGS (BOTH DIGITAL AND HARD COPY) HAVE BEEN RECEIVED AND APPROVED BY THE CITY.

811
Know what's **below.**
Call before you dig.

EROSION AND SEDIMENT CONTROL NOTES

1. SEE THE CITY OF PACIFIC GENERAL CONSTRUCTION NOTES ON THIS SHEET.
2. A CERTIFIED EROSION AND SEDIMENT CONTROL LEAD (CESCL) IS REQUIRED. THE CESCL MUST HAVE ATTENDED AND EROSION AND SEDIMENT CONTROL CLASS WITHIN PAST 3-YEARS. PROVIDE A COPY OF CERTIFICATION CARD.
3. THE CERTIFIED EROSION AND SEDIMENT CONTROL LEAD WILL OVERSEE AND BE RESPONSIBLE FOR ALL EROSION CONTROL. THE FACILITIES SHALL BE INSPECTED DAILY AND MAINTAINED TO ENSURE PROPER FUNCTIONING. WRITTEN RECORDS SHALL BE KEPT OF WEEKLY REVIEWS AND AFTER EVERY SIGNIFICANT STORM EVENT OF THE ESC FACILITIES DURING THE WET SEASON (OCTOBER 1 TO APRIL 30). MONTHLY REVIEWS DURING THE DRY SEASON (MAY 1 TO SEPTEMBER 30). WRITTEN RECORDS SHALL BE PROVIDED TO THE PROJECT MANAGER OR INSPECTOR UPON REQUEST.
4. PROVIDE A SIGN DISPLAYING A 24-HOUR CONTACT NUMBER AND NAME OF THE ESC SUPERVISOR. THE LETTER SIZE SHALL BE A MINIMUM OF 2" LETTERS. THIS SHALL BE IN PLACE PRIOR TO CONSTRUCTION START.
5. IN CASE EROSION OR SEDIMENTATION OCCURS TO ADJACENT PROPERTY, ALL CONSTRUCTION WORK ON THE PROJECT THAT WILL AGGRAVATE THE SITUATION WILL CEASE AND THE CONTRACTOR SHALL IMMEDIATELY COMMENCE RESTORATION OR MITIGATION MEASURES. RESTORATION ACTIVITY SHALL CONTINUE UNTIL SUCH TIME AS THE PROBLEM IS RECTIFIED.
6. STABILIZED CONSTRUCTION ENTRANCES AND ROADS SHALL BE INSTALLED AT THE BEGINNING OF CONSTRUCTION AND MAINTAINED DURING THE DURATION OF THE PROJECT. ADDITIONAL MEASURES MAY BE REQUIRED SUCH AS WASH PADS TO ENSURE THAT ALL PAVED AREAS ARE KEPT CLEAN. NO MUD IS ALLOWED TO ENTER ONTO CITY STREETS.
7. ALL NECESSARY FACILITIES SHALL BE MAINTAINED ON-SITE TO PREVENT DEBRIS, AND MUD FROM ACCUMULATING ON THE PUBLIC RIGHT-OF-WAY.
8. IN ANY AREA WHICH HAS BEEN STRIPPED OF VEGETATION AND WHERE NO FURTHER WORK IS ANTICIPATED FOR A PERIOD OF 2-7 DAYS OR MORE, ALL DISTURBED AREAS MUST BE IMMEDIATELY STABILIZED WITH MULCHING, GRASS PLANTING, OR OTHER APPROVED EROSION CONTROL TREATMENT APPLICABLE TO THE TIME OF YEAR IN QUESTION. GRASS SEEDING ALONE WILL BE ACCEPTABLE ONLY DURING THE MONTHS OF APRIL THROUGH SEPTEMBER, INCLUSIVE. SEEDING MAY PROCEED, HOWEVER, WHENEVER IT IS IN THE INTEREST OF THE CONTRACTOR, BUT MUST BE AUGMENTED WITH MULCHING, NETTING, OR OTHER TREATMENT.
10. ALL STOCK PILED MATERIAL (BEDDING, TRENCH EXCAVATION, TRENCH BACKFILL) SUBJECT TO EROSION SHALL BE COVERED WITH 0.06 MIL PLASTIC SHEETING SECURED IN PLACE WITH SANDBAGS OR EQUIVALENT.
11. THE STORM DRAIN SYSTEM AND EXISTING DITCHES SHALL BE CLEANED DAILY (SECTION 7-07.3). ALL DRAINAGE SYSTEMS SHALL BE CLEANED TO THE ACCEPTANCE OF THE CITY OF PACIFIC PRIOR TO ACCEPTANCE OF THE PROJECT.
12. TWO (2) WEEKS PRIOR TO THE BEGINNING OF THE WET SEASON (OCTOBER 1), ALL DISTURBED AREAS SHALL BE REVIEWED TO IDENTIFY WHICH ONES CAN BE SEEDED IN PREPARATION FOR THE WINTER RAINS. DISTURBED AREAS SHALL BE SEEDED WITHIN ONE (1) WEEK OF THE BEGINNING OF THE WET SEASON. A SKETCH MAP OF THOSE AREAS TO BE SEEDED AND THOSE AREAS TO REMAIN UNCOVERED SHALL BE SUBMITTED TO THE CITY. THE CITY CAN REQUIRE SEEDING IN ADDITIONAL AREAS IN ORDER TO PROTECT SURFACE WATERS, ADJACENT PROPERTIES OR DRAINAGE FACILITIES.
13. PENALTIES FOR AN EROSION CONROL VIOLATION ARE SUBJECT TO A $250 FINE UNDER CHAPTER 24.08.360 - CIVIL PENALTY. EACH DAY IS CONSIDERED A DIFFERENT VIOLATION.

EXISTING LEGEND:

EXISTING:	DESCRIPTION:
	FOUND MONUMENT AS NOTED
	SANITARY SEWER MANHOLE
	SANITARY SEWER CLEANOUT
	STORM CATCH BASIN
	STORM MANHOLE
	ROOF DRAIN
	GAS METER
	GAS VALVE
	TRAFFIC SIGNAL POLE
	TRAFFIC CABINET
	POWER TRANSFORMER
	GUY ANCHOR
	UTILITY POWER POLE
P	ELECTRICAL VAULT
	JUNCTION BOX
	POWER METER
	LUMINAIRE
	TELEPHONE RISER
T	TELEPHONE VAULT
	FIRE HYDRANT
	WATER METER
	WATER VALVE
	A=APPLE, B=BIRCH, F=FIR, P=PINE, HA=HAWTHORNE
	HO=HOLLY, M=MAPLE, O=OAK, U= UNKNOWN
D	STORM LINE
S	SANITARY SEWER LINE
G	GAS LINE
P	ELECTRICAL LINE
T	COMMUNICATIONS LINE
W	WATER LINE
OP	OVERHEAD UTILITIES
FO	FIBER OPTIC LINE
x x x x x	FENCE
XXX	CONTOUR MAJOR INTERVAL
XXX	CONTOUR MINOR INTERVAL
	PROPERTY/RIGHT-OF-WAY LINE
	GUARDRAIL

ABBREVIATIONS

@	AT
AASHTO	AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS
A/C	ASBESTOS CEMENT
AGC	ASSOCIATED GENERAL CONTRACTORS OF AMERICA
AGG.	AGGREGATE
AL.	ALUMINUM
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE
APPROX	APPROXIMATELY
APWA	AMERICAN PUBLIC WORKS ASSOCIATION
ASA	AMERICAN STANDARDS ASSOCIATION
ASCE	AMERICAN SOCIETY OF CIVIL ENGINEERS
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
AVG	AVERAGE
AWWA	AMERICAN WATER WORKS ASSOCIATION
BOT	BOTTOM
BW	BOTH WAYS
CL.	CLASS
CDF	CONTROL DENSITY FILL
CF OR CU FT	CUBIC FEET
CFS	CUBIC FEET PER SECOND
CLR	CLEAR
CMP	CORRUGATED METAL PIPE
CONC.	CONCRETE
CONT	CONTINUOUS
CSBC	CRUSHED SURFACING BASE COURSE
CSTC	CRUSHED SURFACING TOP COURSE
CULV.	CULVERT
CY OR CU YD	CUBIC YARD
D	DRAIN
DEG	DEGREE(S)
DIA	DIAMETER
DIP	DUCTILE IRON PIPE
DIPRA	DUCTILE IRON PIPE RESEARCH ASSOCIATION
E	EAST
ECOLOGY	WASHINGTON STATE DEPARTMENT OF ECOLOGY
EL	ELEVATION
EST.	ESTIMATE(D)
EXCL.	EXCLUDING
EPA	ENVIRONMENTAL PROTECTION AGENCY
EW	EACH WAY
EXIST	EXISTING
FG	FINISH GRADE
FL	FLOW LINE
FLG	FLANGE
FPS	FEET PER SECOND
FT	FEET
GAL	GALLON
GPD	GALLONS PER DAY
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
GPS	GEODETIC POINT SURVEY
H	HORIZONTAL
HDPE	HIGH DENSITY POLYETHYLENE
HUND.	HUNDRED
HMA	HOT MIX ASPHALT
HP	HIGH POINT OR HORSE POWER
IE	INVERT ELEVATION
IN	INCH
INCL	INCLUDE
INFO	INFORMATION
LB	POUND(S)
LF OR LIN FT	LINEAR FOOT (FEET)
LS	LUMP SUM
M	THOUSAND
MAX	MAXIMUM
MG/L	MILLIGRAMS PER LITER
MH	MANHOLE
MIL	1/1000 INCH
MIN	MINIMUM OR MINUTE
MUTCD	MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES
N	NORTH
NEPA	NATIONAL ENVIRONMENTAL POLICY ACT
NPW	NON-POTABLE WATER
NRMCA	NATIONAL READY MIX CONCRETE ASSOCIATION
NTS	NOT TO SCALE
OC	ON CENTER
OSHA	OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION
OZ	OUNCE(S)
PERF	PERFORATED
PERM	PERMEABILITY
PL	PROPERTY LINE
PPI	PLASTIC PIPE INSTITUTE
PRES	PRESSURE
PROP	PROPOSED
PSCP	PLAIN STEEL CULVERT PIPE
PSI	POUNDS PER SQUARE INCH
PVC	POLYVINYL CHLORIDE
R	RADIUS
RCP	REINFORCED CONCRETE PIPE
RCW	REVISED CODE OF WASHINGTON (LAWS OF THE STATE)
RD	ROAD
REINF	REINFORCED, REINFORCING
R/W OR ROW	RIGHT-OF-WAY
S	SLOPE
SDR	STANDARD DIMENSION RATIO
SC	SECTION
SEPA	STATE ENVIRONMENTAL POLICY ACT
SF	SQUARE FEET (FOOT)
SIM	SIMILAR
SL	SLOPE
SS	STAINLESS STEEL
ST	STEEL OR STREET
STA+00	STATION NUMBER
STD	STANDARD
STR	STRUCTURAL
SY OR SQ YD	SQUARE YARD(S)
TH	THICK OR THICKNESS
THRU	THROUGH
TYP	TYPICAL
UDCP	UNDERDRAIN COLLECTION PIPE (PERF)
UGA	URBAN GROWTH AREA
UL	UNDERWRITER LABORATORY
USEPA	UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
V	VERTICAL
VLDPE	VERY LOW DENSITY POLYETHYLENE
W	WEST
W/	WITH
WAC	WASHINGTON ADMINISTRATIVE CODE
WISHA	WASHINGTON INDUSTRIAL SAFETY AND HEALTH ADMINISTRATION
WL	WETLAND
WLB	WETLAND BUFFER
WNP	WATER NON-POTABLE
WS	WATER SURFACE
WSDOE	WASHINGTON STATE DEPARTMENT OF ECOLOGY (ECOLOGY)
WSDOT	WASHINGTON STATE DEPARTMENT OF TRANSPORTATION
WTR	WATER

TRENCH NOTE

IF WORKERS ENTER ANY TRENCH OR OTHER EXCAVATION FOUR OR MORE FEET IN DEPTH THAT DOES NOT MEET THE OPEN PIT REQUIREMENTS OF WSDOT SECTION 2-09.3(3)B, IT SHALL BE SHORED AND CRIBBED. THE CONTRACTOR ALONE SHALL BE RESPONSIBLE FOR WORKER SAFETY AND AHBL ASSUMES NO RESPONSIBILITY. ALL TRENCH SAFETY SYSTEMS SHALL MEET THE REQUIREMENTS OF THE WASHINGTON INDUSTRIAL SAFETY AND HEALTH ACT, CHAPTER 49.17 RCW.

UTILITY NOTE

THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE APPROXIMATE ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES THAT HAPPEN DUE TO THE CONTRACTOR'S FAILURE TO LOCATE EXACTLY AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES. AHBL ASSUMES NO LIABILITY FOR THE LOCATION OF UNDERGROUND UTILITIES.

FILL SPECIFICATION

FILL MATERIAL SHALL NOT CONTAIN PETROLEUM PRODUCTS, OR SUBSTANCES WHICH ARE HAZARDOUS, DANGEROUS, TOXIC, OR WHICH OTHERWISE VIOLATE ANY STATE, FEDERAL, OR LOCAL LAW, ORDINANCE, CODE, REGULATION, RULE, ORDER, OR STANDARD.

PROTECTION OF ENVIRONMENT

NO CONSTRUCTION RELATED ACTIVITY SHALL CONTRIBUTE TO THE DEGRADATION OF THE ENVIRONMENT, ALLOW MATERIAL TO ENTER SURFACE OR GROUND WATERS, OR ALLOW PARTICULATE EMISSIONS TO THE ATMOSPHERE, WHICH EXCEED STATE OR FEDERAL STANDARDS. ANY ACTIONS THAT POTENTIALLY ALLOW A DISCHARGE TO STATE WATERS MUST HAVE PRIOR APPROVAL OF THE WASHINGTON STATE DEPARTMENT OF ECOLOGY.

AUTOCAD FILE

AN AUTOCAD DRAWING FILE IS AVAILABLE TO ASSIST WITH SITE LAYOUT. PLEASE NOTE THAT ELECTRONIC FILES ARE PROVIDED FOR CONTRACTOR'S CONVENIENCE AND SHALL NOT REPLACE NOR BE USED TO SUBSTITUTE THE CONTRACT DOCUMENTS. THE CONTRACTOR IS RESPONSIBLE FOR PROJECT LAYOUT ACCORDING TO CONTRACT DOCUMENTS AND COST FOR ELECTRONIC AUTOCAD FILES.
PHONE: (253) 383-2422
CONTACT: ADAM BRAUN, P.E.

VERTICAL DATUM

NAVD 88
KING COUNTY VERTICAL BENCHMARK 6905
TACK IN CASE AT S368TH ST AND 51ST AVE S.
ELEV:367.06

CIVIL ENGINEER/SURVEYOR

AHBL, INC.
2215 NORTH 30TH ST., STE. 300
TACOMA, WA 98403
CONTACT: BILL FIERST, P.E. , ASSOCIATE PRINCIPAL
ADAM BRAUN, P.E., PROJECT MANAGER
DAVID FOLLANSBEE, P.L.S., SURVEYOR, ASSOCIATE PRINCIPAL
PHONE: (253) 383-2422

TEMPORARY BENCHMARKS

AHBL #101	AHBL #102	AHBL #103
REBAR AND CAP	NAIL AND WASHER	SUPK
N:97769.7172	N:98208.8192	N:98829.3740
E:1285373.4430	E:1285434.6300	E:1285374.3500
ELEV:77.27	ELEV:73.35	ELEV:78.86
AHBL #105	AHBL #106	AHBL #109
REBAR AND CAP	NAIL AND WASHER	NAIL AND WASHER
N:99177.0123	N:99708.9507	N:100055.5616
E:1285350.8005	E:1285482.0443	E:1285450.8691
ELEV:79.75	ELEV:79.62	ELEV:77.80
AHBL #111		
NAIL AND WASHER		
N:100531.7182		
E:1285589.3673		
ELEV:82.28		

BASIS OF BEARING

WASHINGTON STATE PLANE COORDINATE SYSTEM, NORTH ZONE
KING COUNTY HORIZONTAL CONTROL
HOLDING COUNTY MONUMENT NUMBERS 6905 AND 6923.

POINT NO. 6905	POINT NO. 6923
N=102459.7435	N=97136.55
E=1283485.963	E=1288533.511
TACK IN CASE AT	BRASS DISK AT
S 368TH ST AND 51ST AVE S.	MILWAUKEE AVE
	AND COUNTY LINE ROAD.

WILLIAM J. FIERST
STATE OF WASHINGTON
21803
REGISTERED
PROFESSIONAL ENGINEER
02/19/2019

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JOB NO. 2130176.10, 2140392.10 DRAWING NO.

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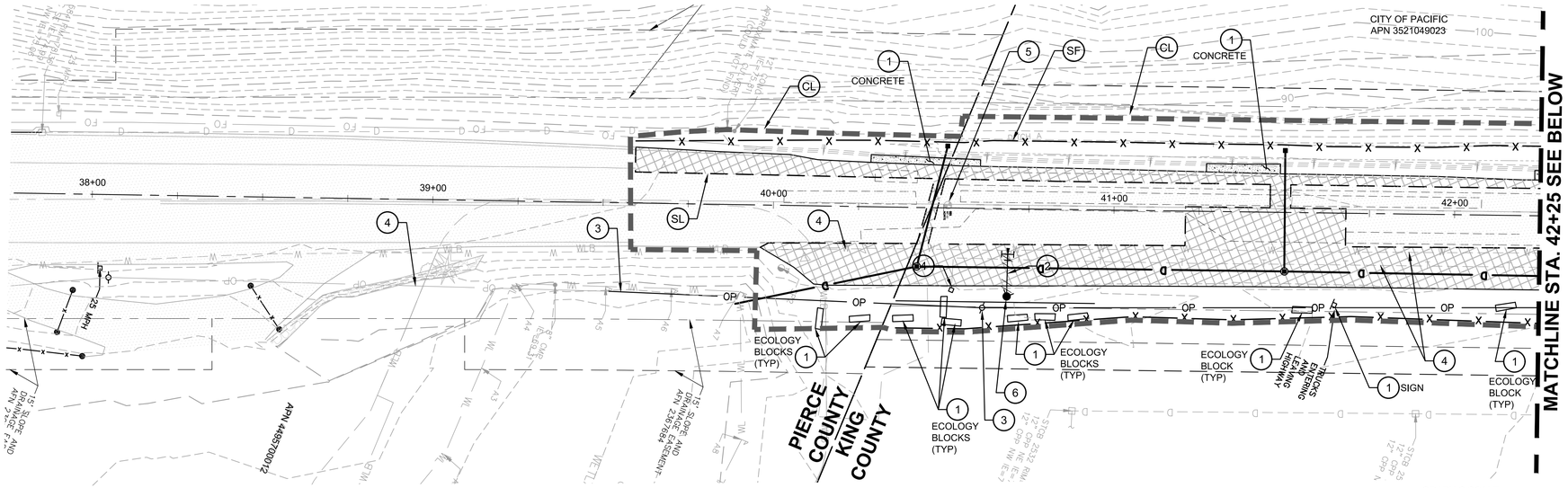
Pacific, WA 98047
Phone: (253)929-1110
Fax: (253)887-9910

DESIGNED A. TURPIN
DRAWN A. TURPIN
CHECKED A. BRAUN
APPROVED W. FIERST
SCALE AS NOTED
DATE FEBRUARY 2019

WEST VALLEY HIGHWAY ROADWAY IMPROVEMENT PROJECT
GENERAL NOTES

PROJECT/APPLICANT
CITY OF PACIFIC
100 3rd AVENUE SE
PACIFIC, WASHINGTON 98047

SHEET NO. G-2



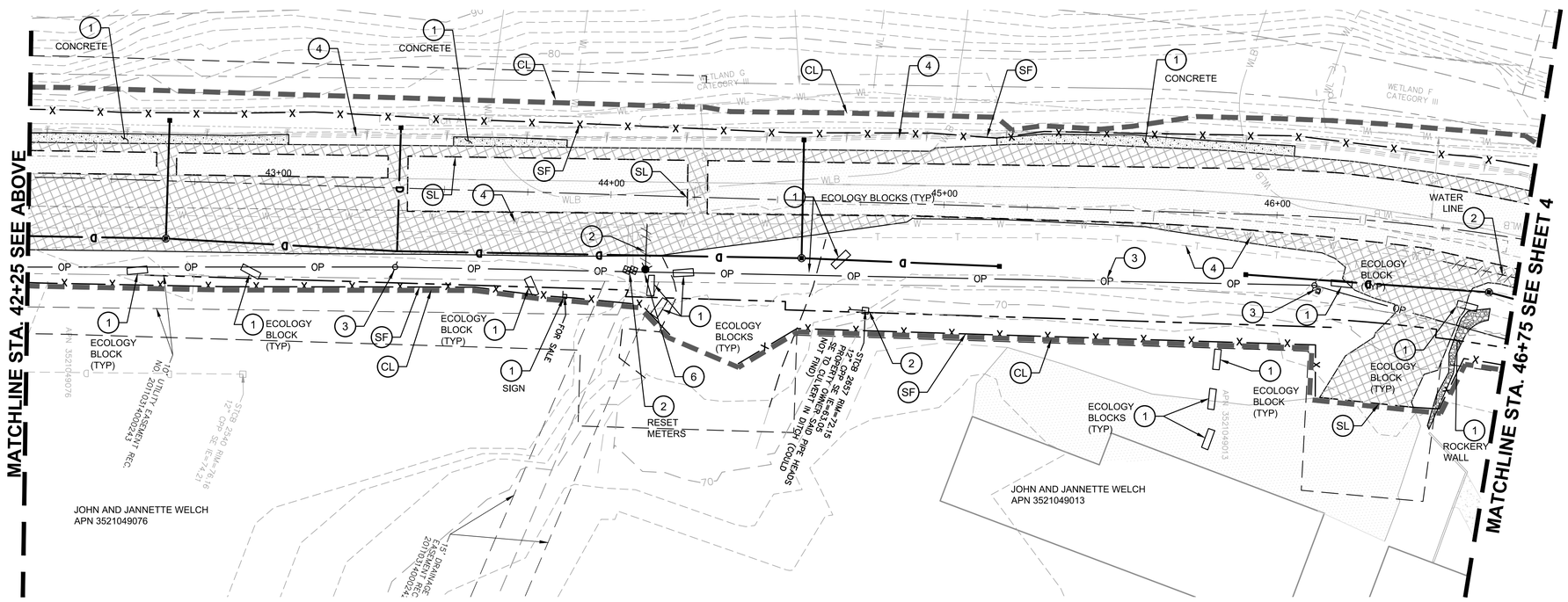
STA. 37+75 TO STA. 42+25

SCALE: 1" = 20'

GRAPHIC SCALE

0 10 20 40

1" = 20 FEET



STA. 42+25 TO STA. 46+75

SCALE: 1" = 20'

GRAPHIC SCALE

0 10 20 40

1" = 20 FEET

LEGEND:

- IP — STORM DRAIN INLET PROTECTION PER WSDOT STD. PLAN I-40.20-00
- CL — CLEARING/PROJECT LIMITS
- SF — SILT FENCE
- REMOVE EXISTING UTILITY
- REMOVE EXISTING ASPHALT PAVEMENT INCLUDING BASE MATERIAL
- REMOVE EXISTING SIDEWALK OR CONCRETE PAVEMENT INCLUDING BASE MATERIAL.
- SL — SAWCUT LINE
- EXISTING ROW
- PROPOSED ROW
- PROPOSED EASEMENT

GENERAL NOTES:

1. PROTECT ALL UTILITIES WITHIN RIGHT-OF-WAY, UNLESS OTHERWISE NOTED.
2. PROTECT ALL VEGETATION UNLESS OTHERWISE NOTED.
3. PROTECT ALL MONUMENTS UNLESS OTHERWISE NOTED.

KEYNOTES:

1. REMOVE EXISTING SITE FEATURES.
2. REMOVE EXISTING UTILITIES.
3. UTILITY REMOVAL AND RELOCATION BY OTHERS.
4. PROTECT EXISTING UTILITY TO REMAIN.
5. PROTECT EXISTING MONUMENT TO REMAIN.
6. RELOCATE EXISTING FIRE HYDRANT. SEE UTILITY SHEETS FOR FINAL LOCATION.

Know what's **below.**
Call before you dig.

WILLIAM J. FIERST — STATE OF WASHINGTON — 41803 — REGISTERED PROFESSIONAL ENGINEER — 02/19/2019

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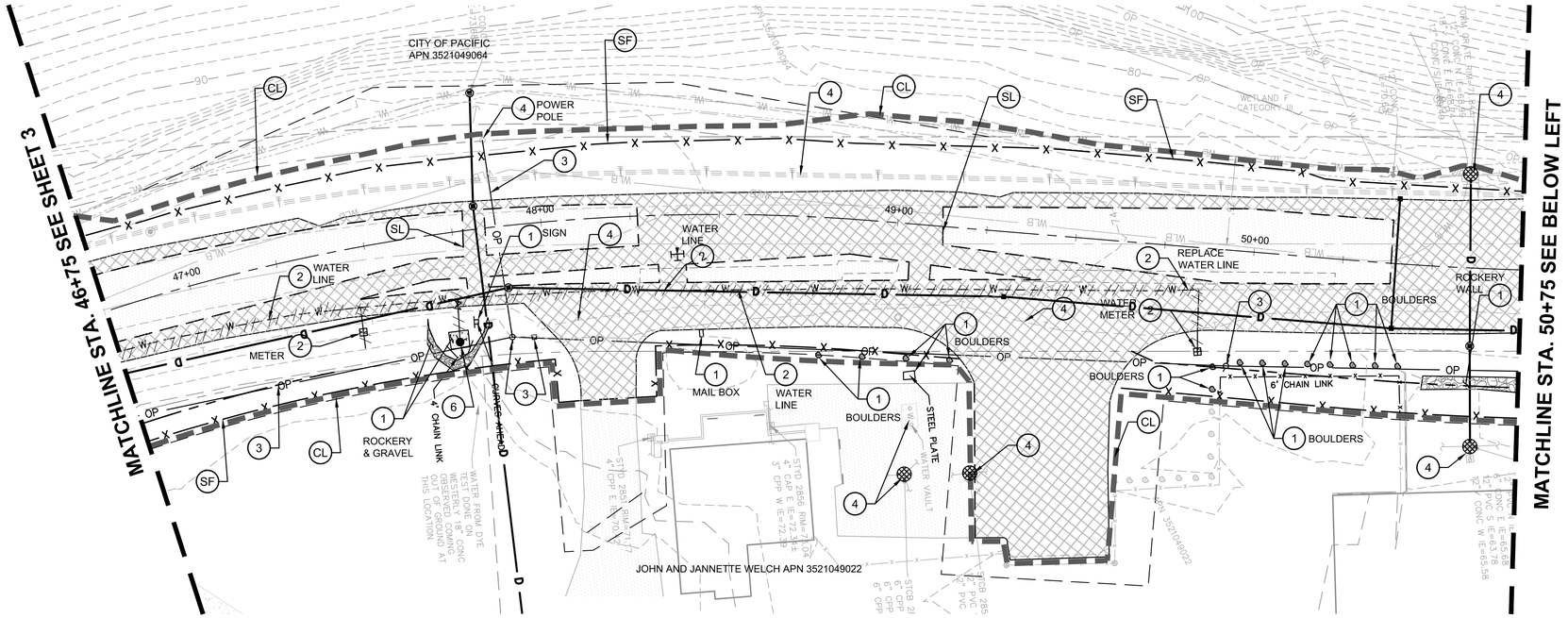
SCALE AS NOTED
DATE FEBRUARY 2019

WEST VALLEY HIGHWAY ROADWAY IMPROVEMENT PROJECT
TESC & DEMOLITION PLAN

PROJECT/APPLICANT
CITY OF PACIFIC
100 3rd AVENUE SE
PACIFIC, WASHINGTON 98047

SHEET NO. DM-3



STA. 46+75 TO STA. 50+75

SCALE: 1" = 20'

GRAPHIC SCALE

0 10 20 40

1" = 20 FEET

LEGEND:

- IP — STORM DRAIN INLET PROTECTION PER WSDOT STD. PLAN I-40.20-00
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- SF — SILT FENCE
- REMOVE EXISTING UTILITY
- REMOVE EXISTING ASPHALT PAVEMENT INCLUDING BASE MATERIAL
- REMOVE EXISTING SIDEWALK OR CONCRETE PAVEMENT INCLUDING BASE MATERIAL.
- SL — SAWCUT LINE
- EXISTING ROW
- PROPOSED ROW
- PROPOSED EASEMENT

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3. PROTECT ALL MONUMENTS UNLESS OTHERWISE NOTED.

KEYNOTES:

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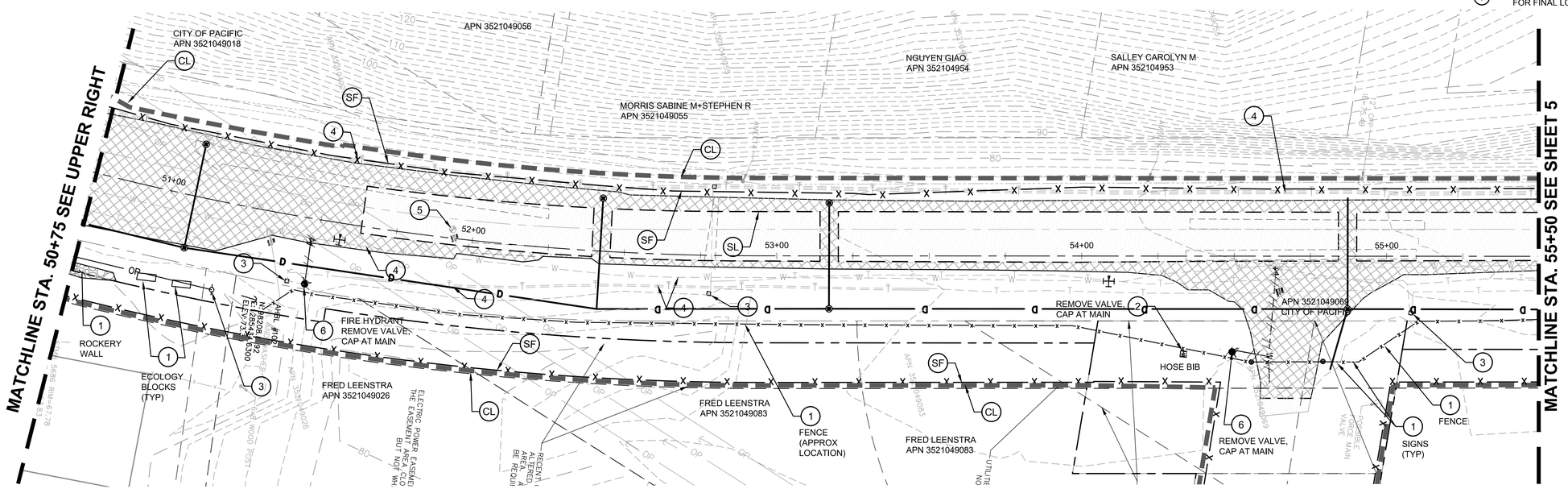
2. REMOVE EXISTING UTILITIES.
3. UTILITY REMOVAL AND RELOCATION BY OTHERS.
4. PROTECT EXISTING UTILITY TO REMAIN.
5. PROTECT EXISTING MONUMENT TO REMAIN.
6. RELOCATE EXISTING FIRE HYDRANT. SEE UTILITY SHEETS FOR FINAL LOCATION.



STA. 50+75 TO STA. 55+50

SCALE: 1" = 20'

GRAPHIC SCALE

0 10 20 40

1" = 20 FEET

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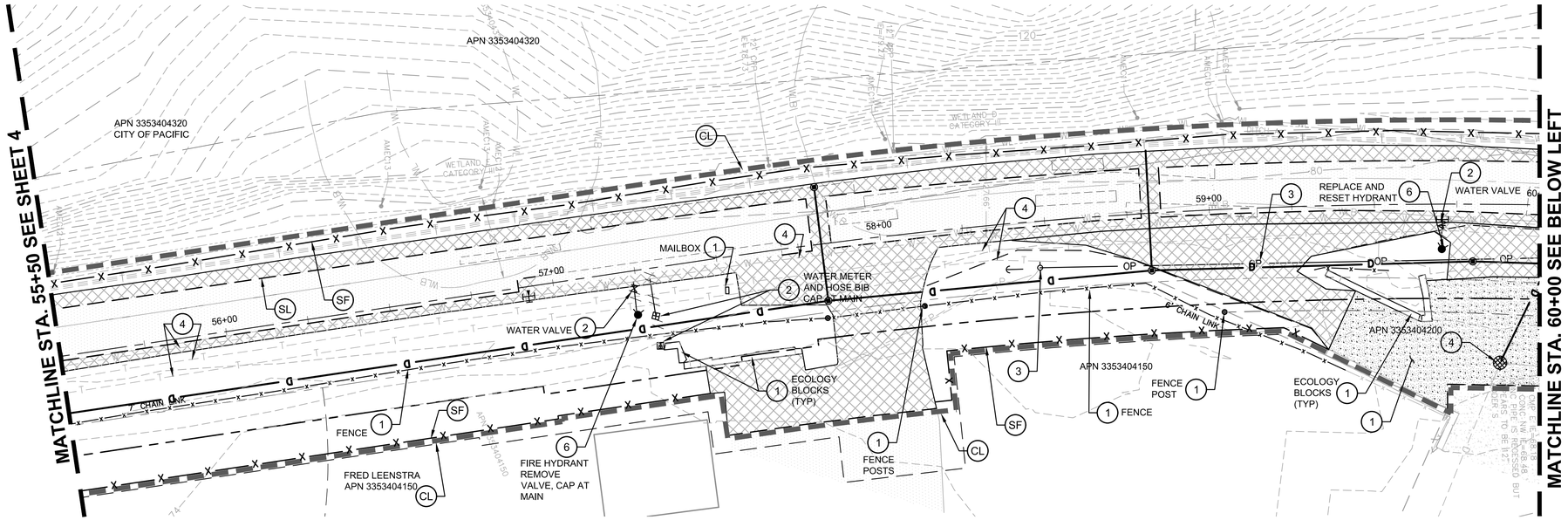
CHECKED A. BRAUN
APPROVED W. FIERST
SCALE AS NOTED
DATE FEBRUARY 2019

WEST VALLEY HIGHWAY ROADWAY IMPROVEMENT PROJECT
TESC & DEMOLITION PLAN

PROJECT/APPLICANT
CITY OF PACIFIC
100 3rd AVENUE SE
PACIFIC, WASHINGTON 98047

SHEET NO. DM-4

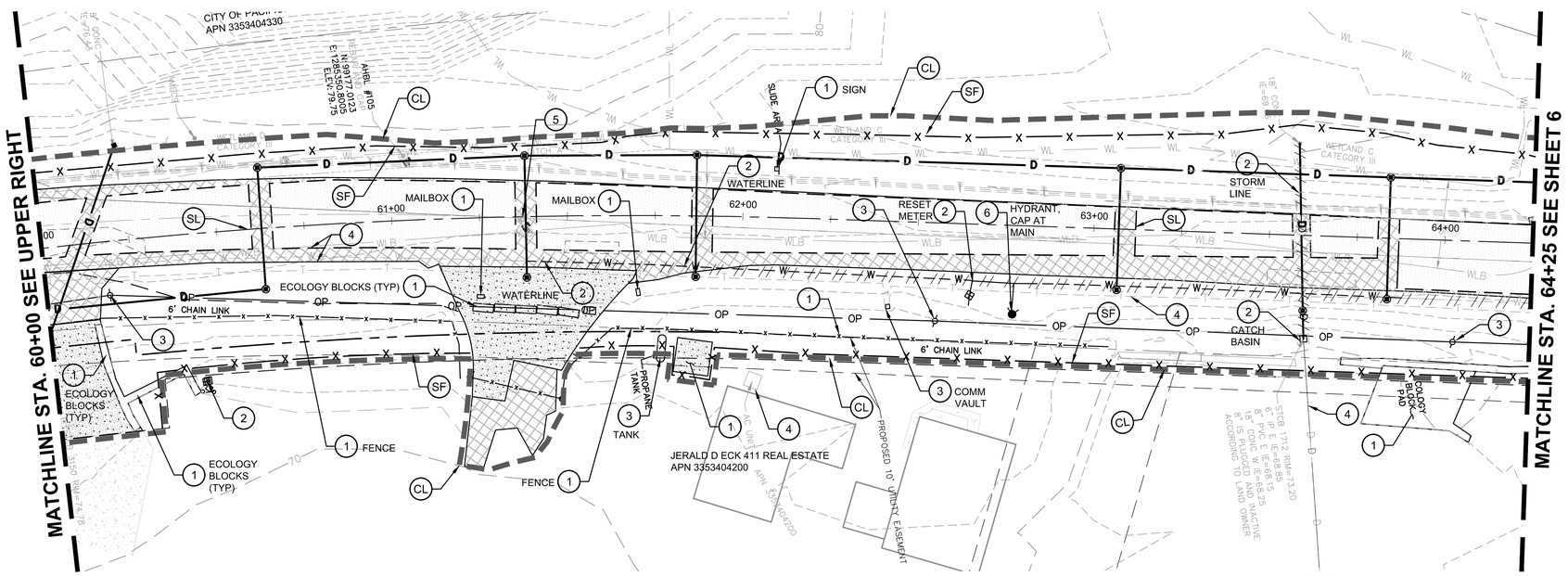


STA. 55+50 TO STA. 60+00

SCALE: 1" = 20'

GRAPHIC SCALE 0 10 20 40

1" = 20 FEET



STA. 60+00 TO STA. 64+25

SCALE: 1" = 20'

GRAPHIC SCALE 0 10 20 40

1" = 20 FEET

LEGEND:

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- SF — SILT FENCE
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- REMOVE EXISTING ASPHALT PAVEMENT INCLUDING BASE MATERIAL
- REMOVE EXISTING SIDEWALK OR CONCRETE PAVEMENT INCLUDING BASE MATERIAL.
- SL — SAWCUT LINE
- EXISTING ROW
- PROPOSED ROW
- PROPOSED EASEMENT

GENERAL NOTES:

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3. PROTECT ALL MONUMENTS UNLESS OTHERWISE NOTED.

KEYNOTES:

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3. UTILITY REMOVAL AND RELOCATION BY OTHERS.
4. PROTECT EXISTING UTILITY TO REMAIN.
5. PROTECT EXISTING MONUMENT TO REMAIN.
6. RELOCATE EXISTING FIRE HYDRANT. SEE UTILITY SHEETS FOR FINAL LOCATION.

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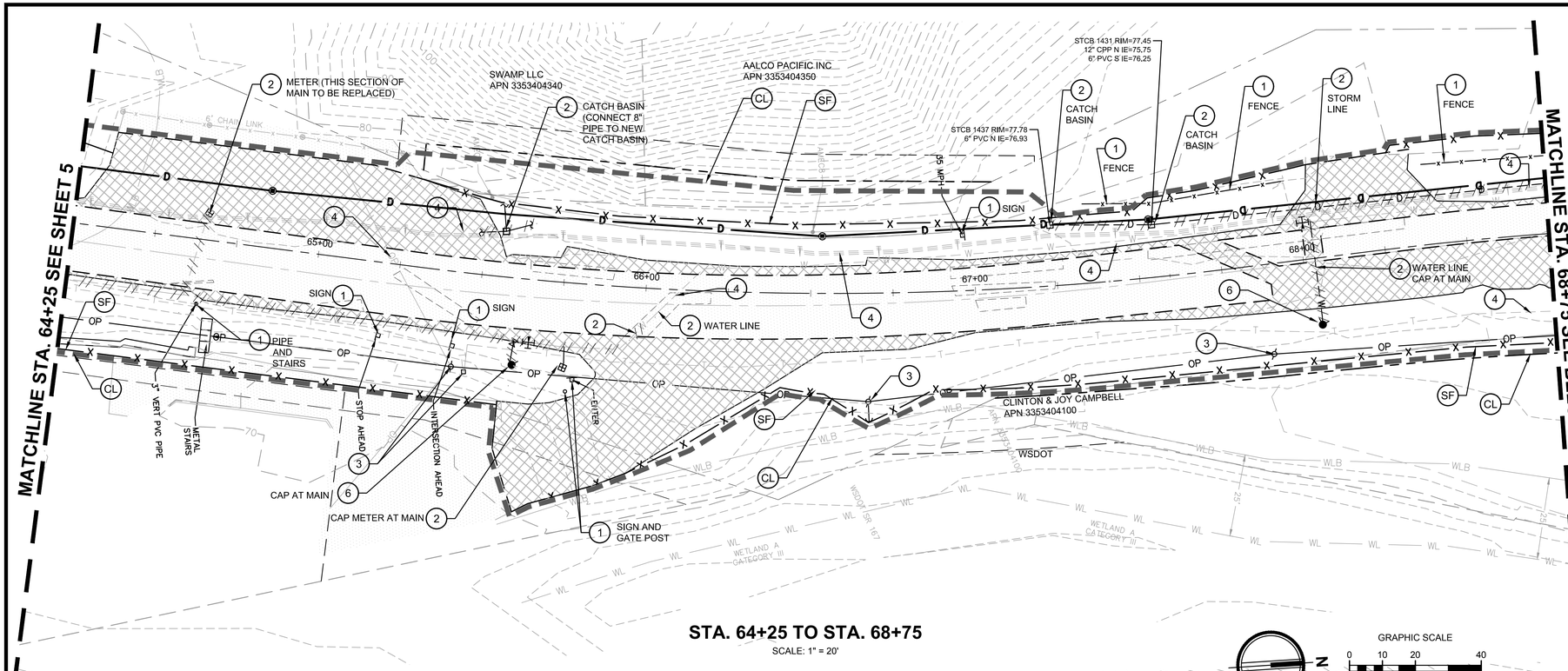
APPROVED W. FIERST
SCALE AS NOTED
DATE FEBRUARY 2019

WEST VALLEY HIGHWAY ROADWAY IMPROVEMENT PROJECT
TESC & DEMOLITION PLAN

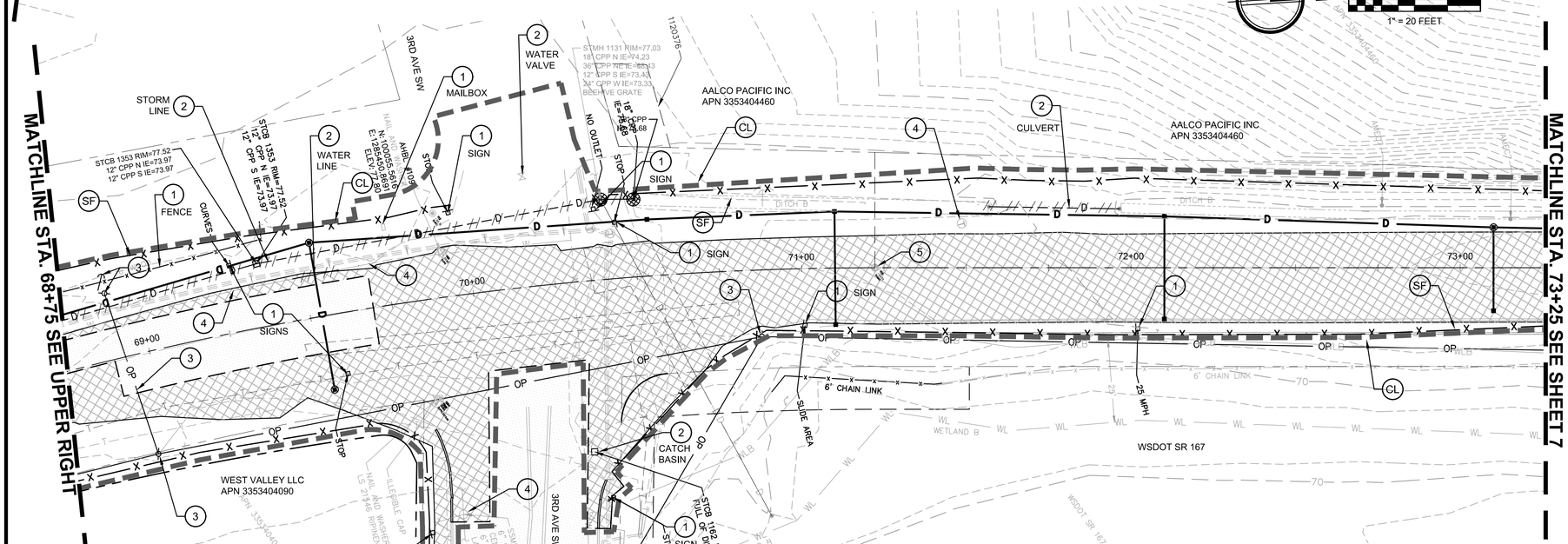
PROJECT/APPLICANT CITY OF PACIFIC
100 3rd AVENUE SE
PACIFIC, WASHINGTON 98047

SHEET NO. DM-5



STA. 64+25 TO STA. 68+75

SCALE: 1" = 20'



STA. 68+75 TO STA. 73+25

SCALE: 1" = 20'

GRAPHIC SCALE
0 10 20 40
1" = 20 FEET

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LEGEND:

IP	STORM DRAIN INLET PROTECTION PER WSDOT STD. PLAN I-40.20-00
CL	CLEARING/PROJECT LIMITS
SF	SILT FENCE
	REMOVE EXISTING UTILITY
	REMOVE EXISTING ASPHALT PAVEMENT INCLUDING BASE MATERIAL
	REMOVE EXISTING SIDEWALK OR CONCRETE PAVEMENT INCLUDING BASE MATERIAL.
SL	SAWCUT LINE
	EXISTING ROW
	PROPOSED ROW
	PROPOSED EASEMENT

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6. RELOCATE EXISTING FIRE HYDRANT. SEE UTILITY SHEETS FOR FINAL LOCATION.

WILLIAM J. FIERST
STATE OF WASHINGTON
13931
REGISTERED
PROFESSIONAL ENGINEER
02/19/2019

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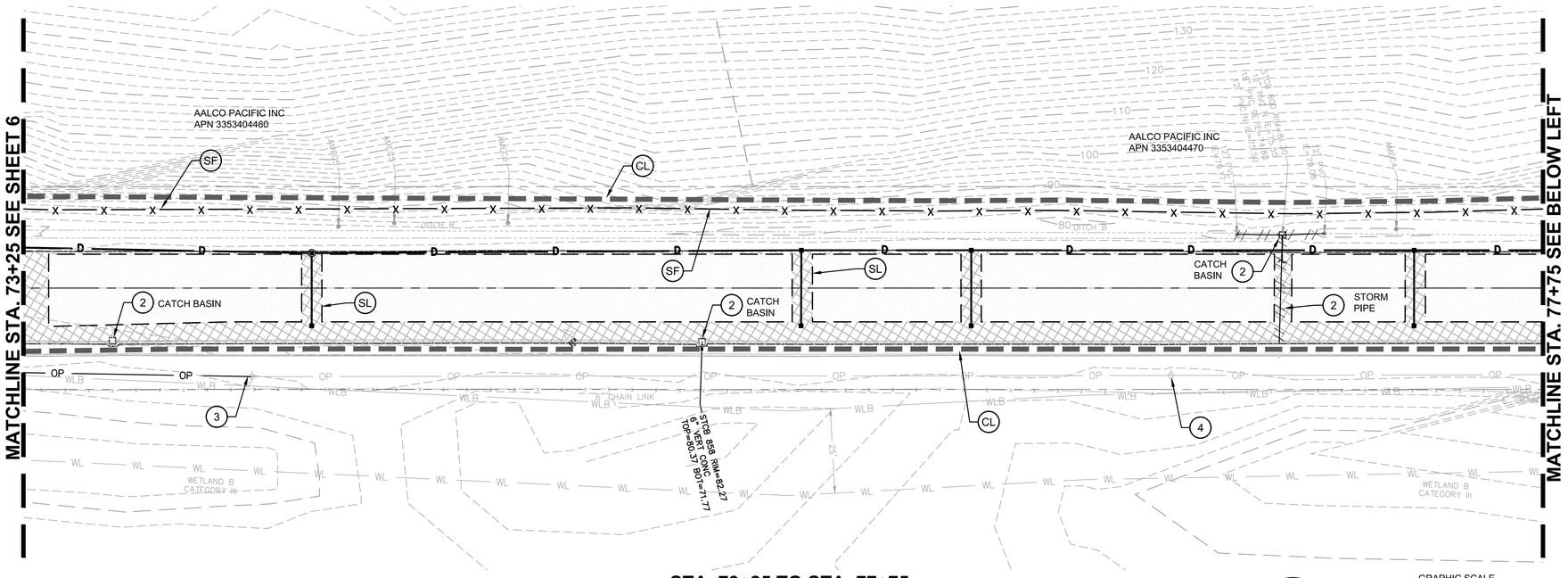
APPROVED W. FIERST
SCALE AS NOTED
DATE FEBRUARY 2019

WEST VALLEY HIGHWAY ROADWAY IMPROVEMENT PROJECT
TESC & DEMOLITION PLAN

PROJECT/APPLICANT
CITY OF PACIFIC
100 3rd AVENUE SE
PACIFIC, WASHINGTON 98047

SHEET NO. DM-6



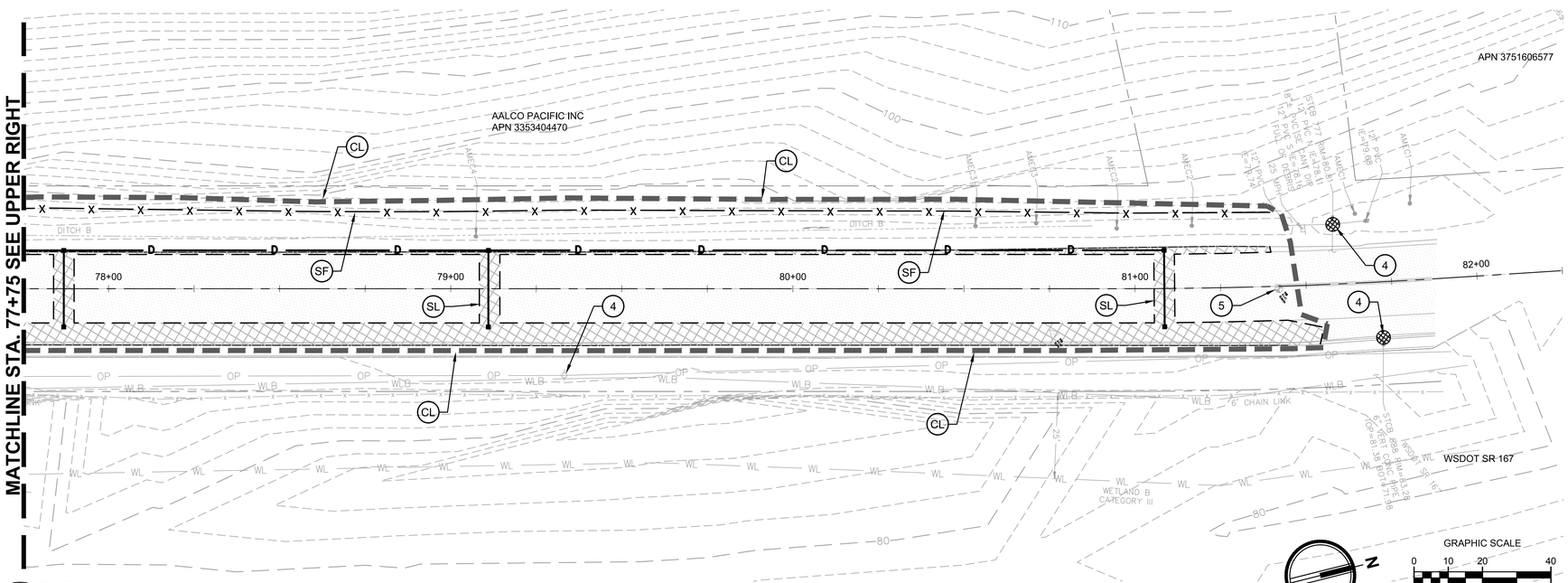
STA. 73+25 TO STA. 77+75

SCALE: 1" = 20'

GRAPHIC SCALE

0 10 20 40

1" = 20 FEET



STA. 77+75 TO STA. 82+25

SCALE: 1" = 20'

GRAPHIC SCALE

0 10 20 40

1" = 20 FEET

LEGEND:

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WILLIAM J. FIERST
STATE OF WASHINGTON
15931
REGISTERED
PROFESSIONAL ENGINEER
02/19/2019

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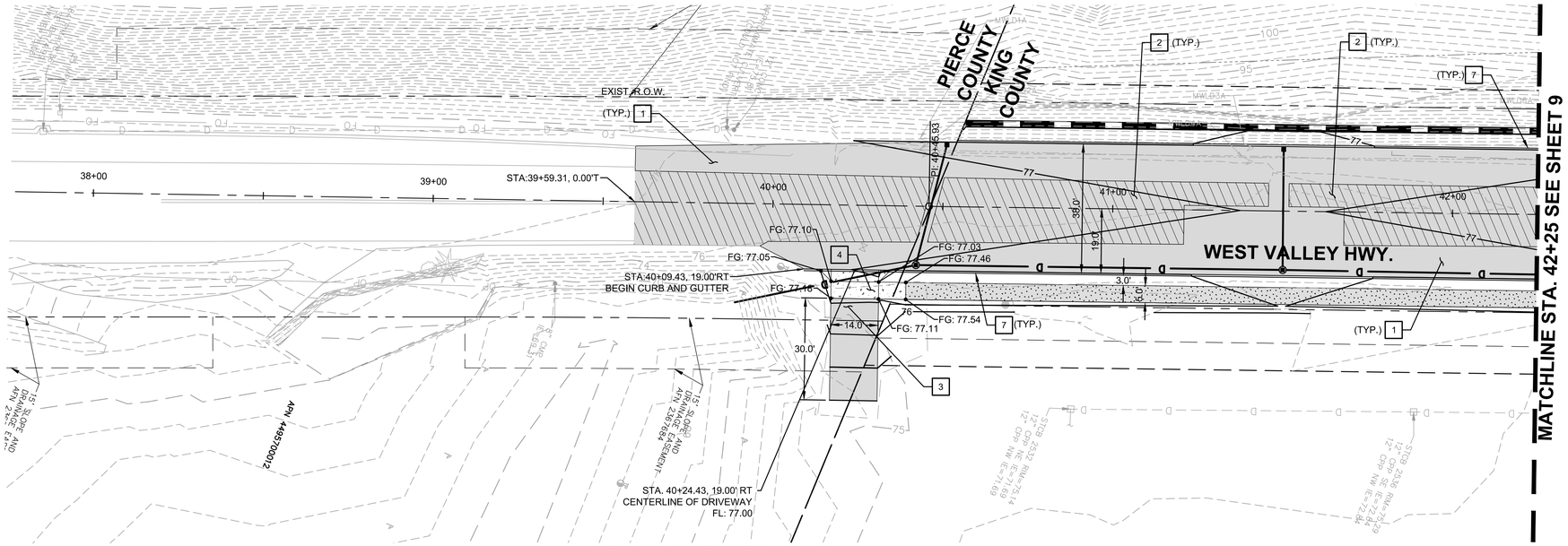
SCALE AS NOTED
DATE FEBRUARY 2019

WEST VALLEY HIGHWAY ROADWAY IMPROVEMENT PROJECT
TESC & DEMOLITION PLAN

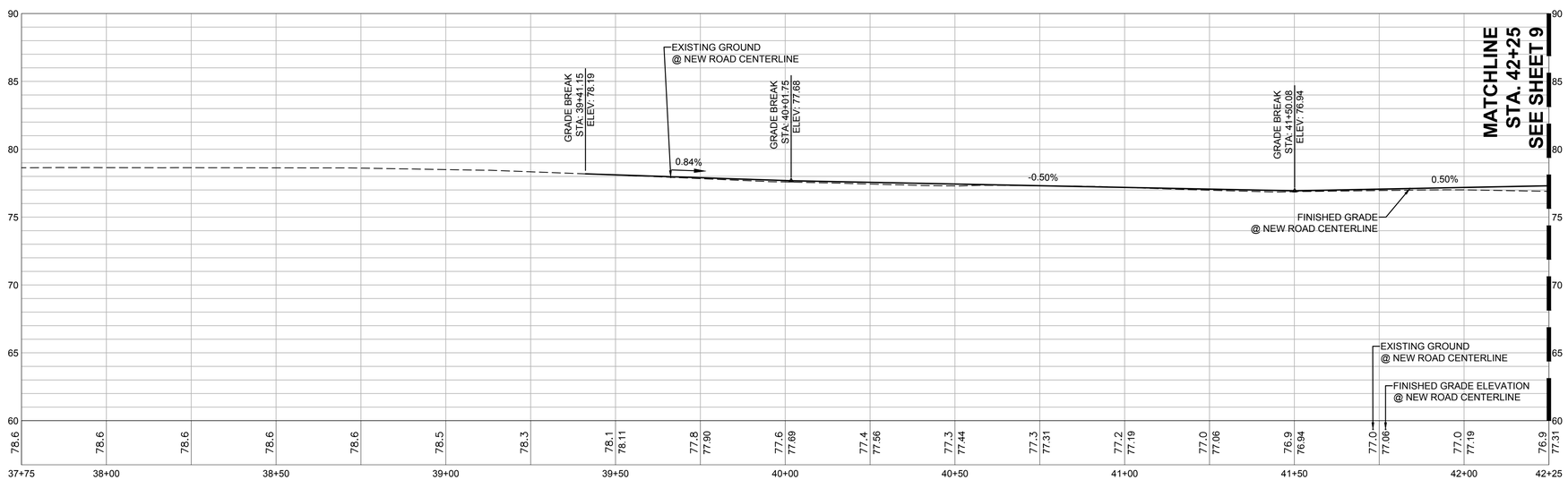
PROJECT/APPLICANT
CITY OF PACIFIC
100 3rd AVENUE SE
PACIFIC, WASHINGTON 98047

SHEET NO. DM-7



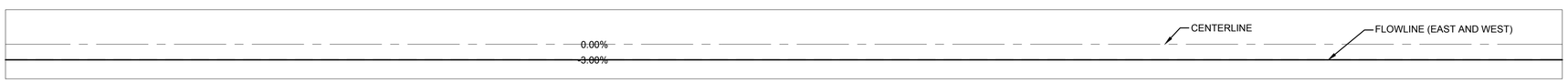
STA. 37+75 TO STA. 42+25
ROAD PLAN

SCALE: 1" = 20'



STA. 37+75 TO STA. 42+25
ROAD PROFILE

VERTICAL SCALE: 1" = 5'



SUPER ELEVATION DIAGRAM

GRAPHIC SCALE
0 10 20 40
1" = 20 FEET

KEYNOTES:

1. FULL-DEPTH ASPHALT PAVEMENT PER 1/31
2. HMA OVERLAY PER 2/31
3. ASPHALT DRIVEWAY PER 2/18 4/31
4. CEMENT CONCRETE SIDEWALK PER WSDOT STD PLAN F-30.10-03
5. PERPENDICULAR CURB RAMP (TYPE PERPENDICULAR A) PER WSDOT STD PLAN F-40.15-03
6. POROUS CONCRETE PAVEMENT PER 3/31
7. CEMENT CONCRETE TRAFFIC CURB AND GUTTER PER WSDOT STD. PLAN F-10.12-03
8. PARALLEL CURB RAMP (TYPE PARALLEL A) PER WSDOT STD PLAN F-40.12-03
9. MAILBOX SUPPORT TYPE 1 PER WSDOT STD. PLAN H-70.10-01
10. MONUMENT CASE AND COVER

LEGEND:

- ASPHALT PAVEMENT 1/31
- CEMENT CONCRETE SIDEWALK OR DRIVEWAY
- ASPHALT PAVEMENT OVERLAY 2/31
- POROUS CONCRETE PAVEMENT 3/31
- XXX PROPOSED MAJOR CONTOURS
- XXX PROPOSED MINOR CONTOURS
- XXX EXISTING MAJOR CONTOURS
- XXX EXISTING MINOR CONTOURS
- PROPOSED WALL

GENERAL NOTES

1. ALL DIMENSIONS AND STATION AND OFFSET REFERENCES ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.
2. PROVIDE MONUMENTS AT ALL HORIZONTAL PC, PT, AND PI LOCATIONS.

WILLIAM J. FIERST
STATE OF WASHINGTON
41803
REGISTERED
PROFESSIONAL ENGINEER
02/19/2019

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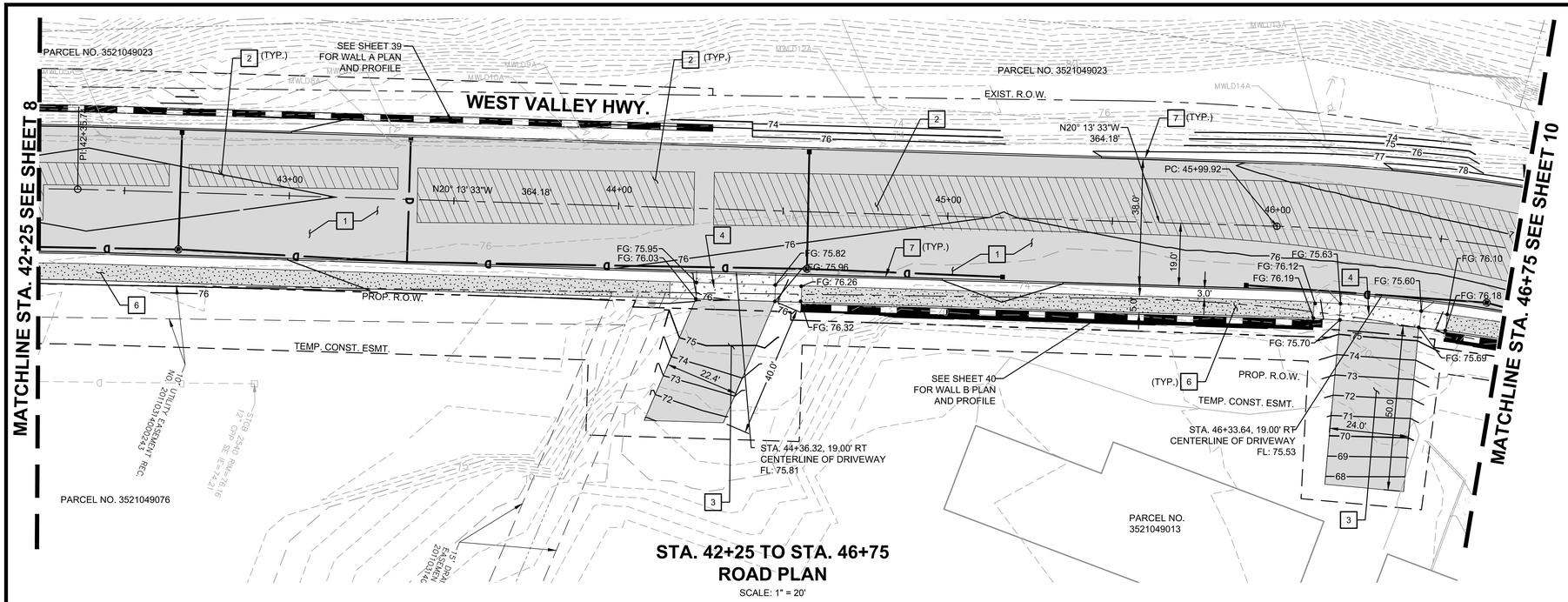
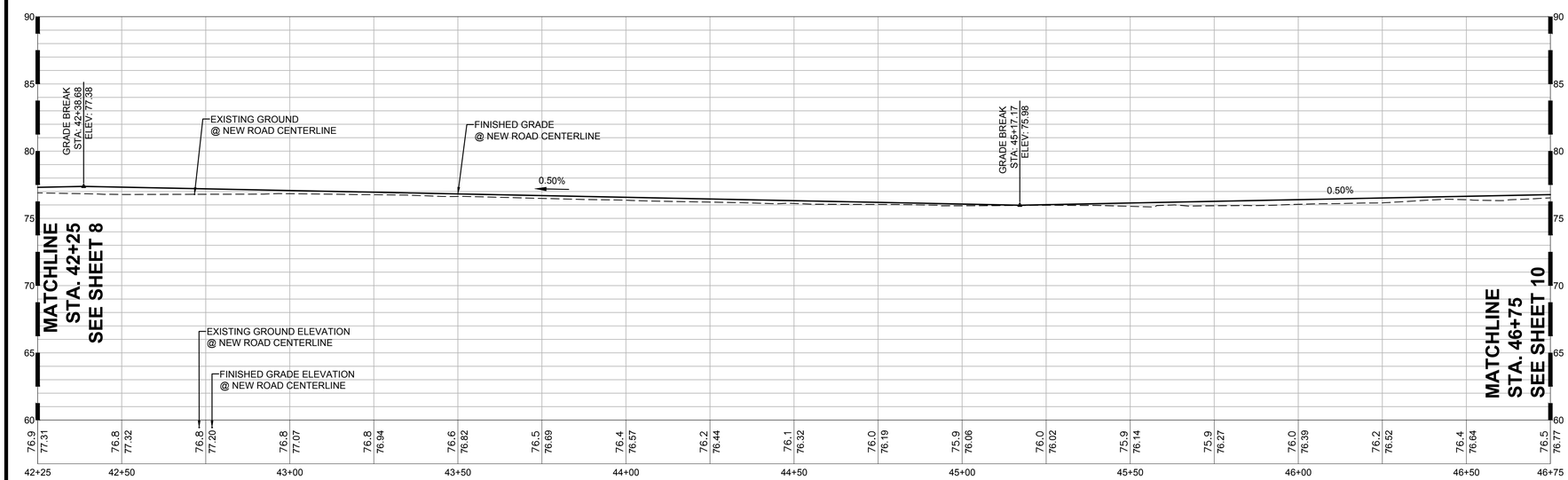
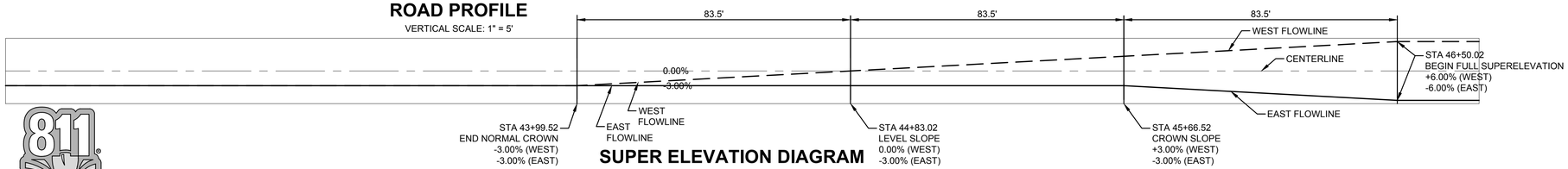
WEST VALLEY HIGHWAY ROADWAY IMPROVEMENT PROJECT
ROADWAY PLAN & PROFILE

PROJECT/APPLICANT
CITY OF PACIFIC
100 3rd AVENUE SE
PACIFIC, WASHINGTON 98047

SHEET NO. RD-8







GRAPHIC SCALE
0 10 20 40
1" = 20 FEET

KEYNOTES:

1. FULL-DEPTH ASPHALT PAVEMENT PER 1/31
2. HMA OVERLAY PER 2/31
3. ASPHALT DRIVEWAY PER 2/18 4/31
4. CEMENT CONCRETE SIDEWALK PER WSDOT STD PLAN F-30.10-03
5. PERPENDICULAR CURB RAMP (TYPE PERPENDICULAR A) PER WSDOT STD PLAN F-40.15-03
6. POROUS CONCRETE PAVEMENT PER 3/31
7. CEMENT CONCRETE TRAFFIC CURB AND GUTTER PER WSDOT STD. PLAN F-10.12-03
8. PARALLEL CURB RAMP (TYPE PARALLEL A) PER WSDOT STD PLAN F-40.12-03
9. MAILBOX SUPPORT TYPE 1 PER WSDOT STD. PLAN H-70.10-01
10. MONUMENT CASE AND COVER

LEGEND:

- ASPHALT PAVEMENT 1/31
- CEMENT CONCRETE SIDEWALK OR DRIVEWAY
- ASPHALT PAVEMENT OVERLAY 2/31
- POROUS CONCRETE PAVEMENT 3/31
- XXX PROPOSED MAJOR CONTOURS
- XXX PROPOSED MINOR CONTOURS
- XXX EXISTING MAJOR CONTOURS
- XXX EXISTING MINOR CONTOURS
- PROPOSED WALL

GENERAL NOTES

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WILLIAM J. FIERST
STATE OF WASHINGTON
21803
REGISTERED
PROFESSIONAL ENGINEER
02/19/2019

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DRAWN A. TURPIN
CHECKED A. BRAUN
APPROVED W. FIERST
SCALE AS NOTED
DATE FEBRUARY 2019

WEST VALLEY HIGHWAY ROADWAY IMPROVEMENT PROJECT
ROADWAY PLAN & PROFILE

PROJECT/APPLICANT
CITY OF PACIFIC
100 3rd AVENUE SE
PACIFIC, WASHINGTON 98047

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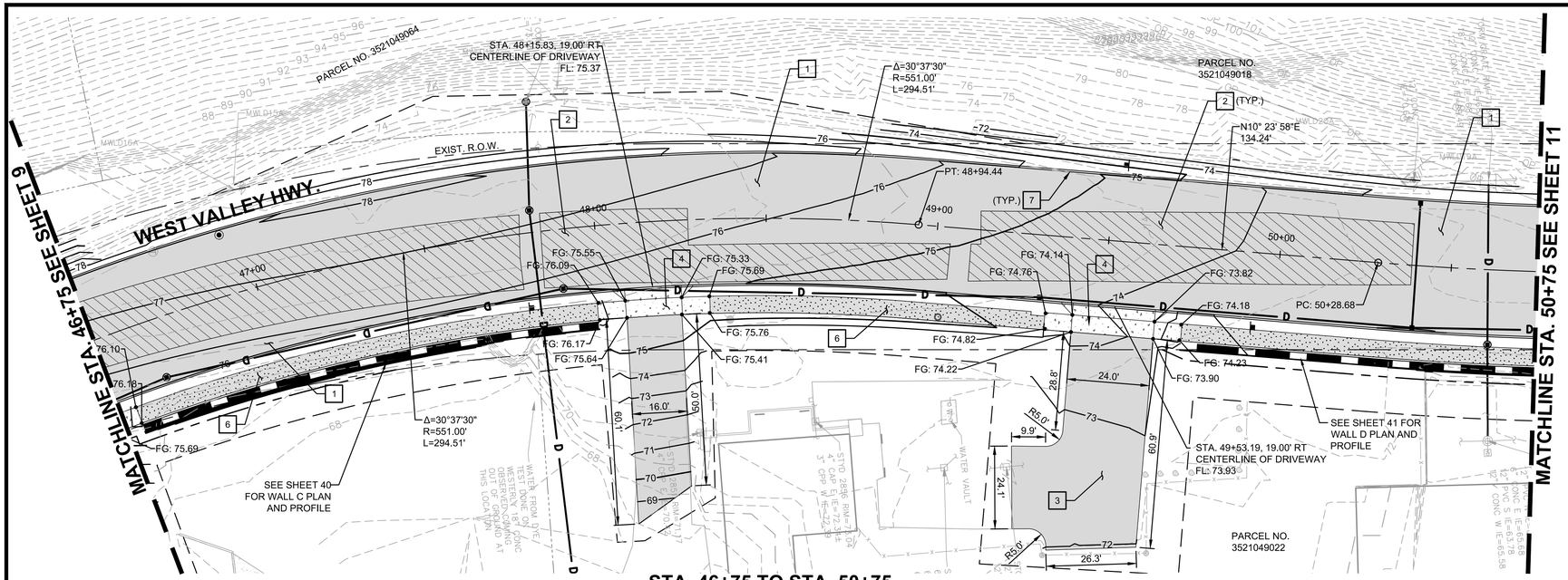
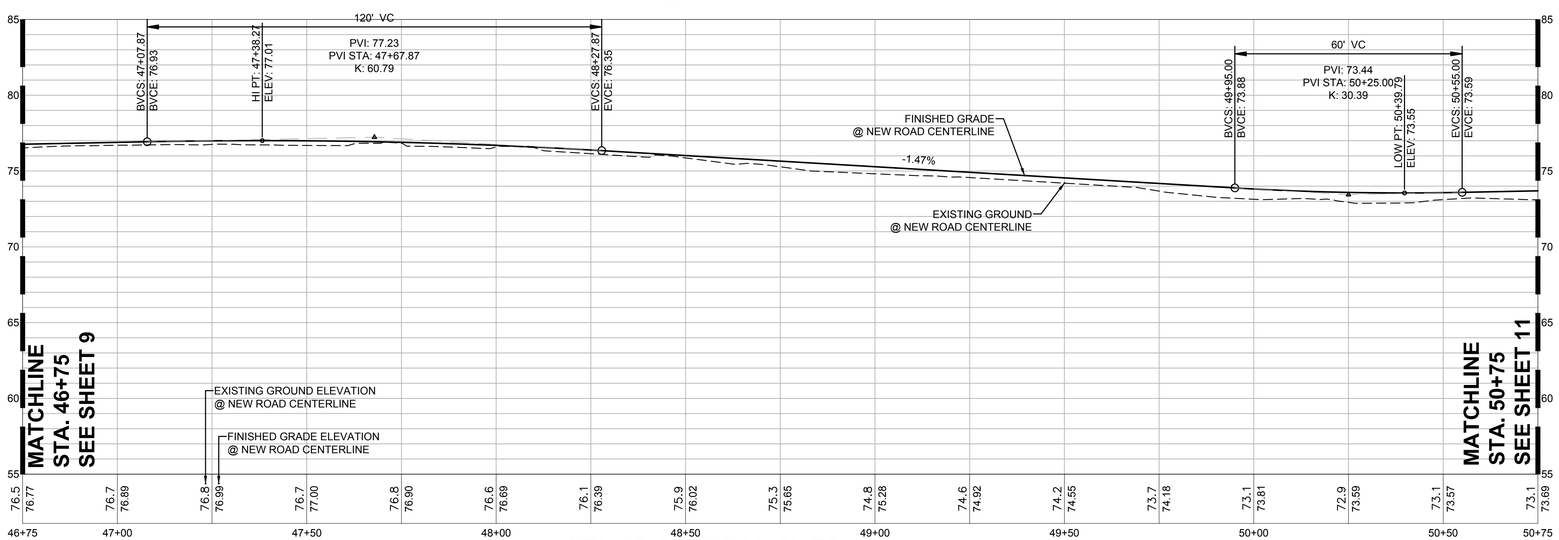


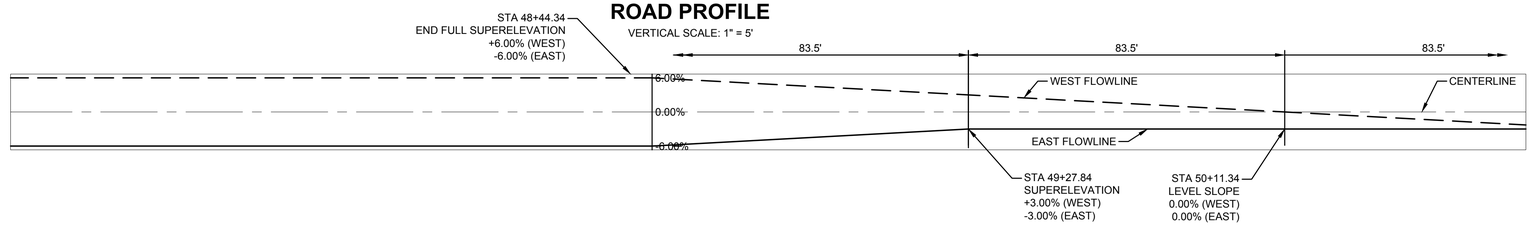
STA. 46+75 TO STA. 50+75
ROAD PLAN

SCALE: 1" = 20'



STA. 46+75 TO STA. 50+75
ROAD PROFILE

VERTICAL SCALE: 1" = 5'



SUPER ELEVATION DIAGRAM

GRAPHIC SCALE

0 10 20 40

1" = 20 FEET

KEYNOTES:

1. FULL-DEPTH ASPHALT PAVEMENT PER 1/31
2. HMA OVERLAY PER 2/31
3. ASPHALT DRIVEWAY PER 2/18 4/31
4. CEMENT CONCRETE SIDEWALK PER WSDOT STD PLAN F-30.10-03
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9. MAILBOX SUPPORT TYPE 1 PER WSDOT STD. PLAN H-70.10-01
10. MONUMENT CASE AND COVER

LEGEND:

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WILLIAM J. FIERST — STATE OF WASHINGTON — 31803 — REGISTERED PROFESSIONAL ENGINEER

02/19/2019

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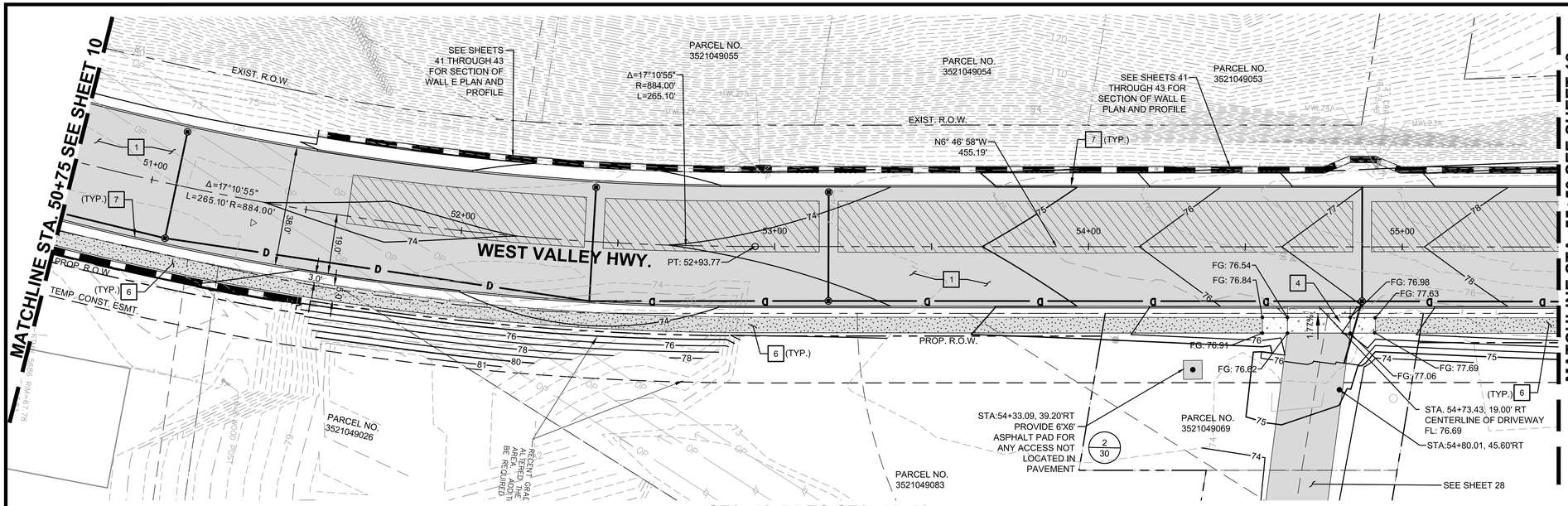
DRAWN A. TURPIN
CHECKED A. BRAUN
APPROVED W. FIERST
SCALE AS NOTED
DATE FEBRUARY 2019

WEST VALLEY HIGHWAY ROADWAY IMPROVEMENT PROJECT
ROADWAY PLAN & PROFILE

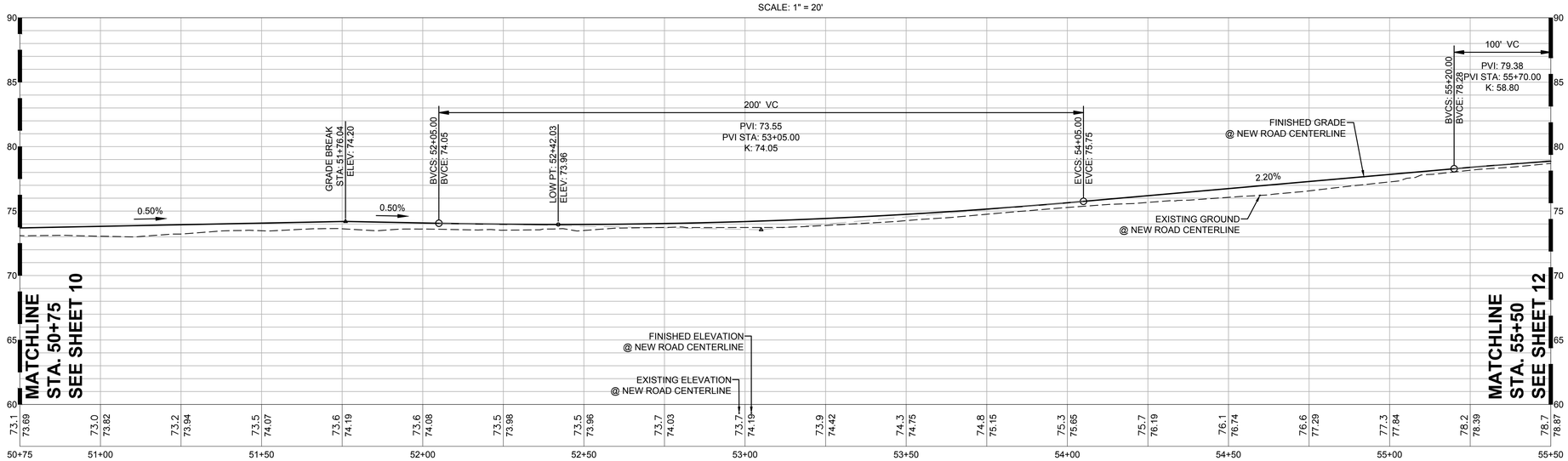
PROJECT/APPLICANT
CITY OF PACIFIC
100 3rd AVENUE SE
PACIFIC, WASHINGTON 98047

SHEET NO. RD–10



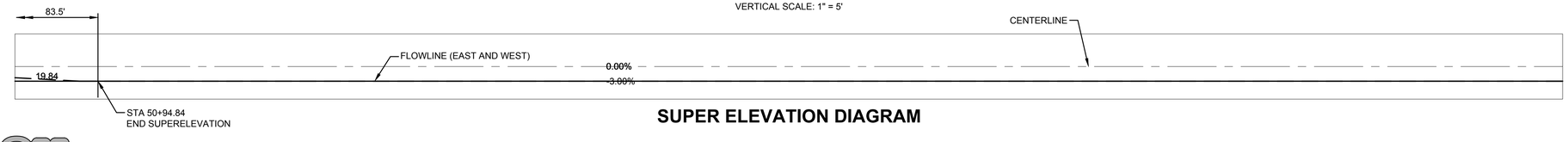
STA. 50+75 TO STA. 55+50
ROAD PLAN

SCALE: 1" = 20'



STA. 50+75 TO STA. 55+50
ROAD PROFILE

VERTICAL SCALE: 1" = 5'



SUPER ELEVATION DIAGRAM

GRAPHIC SCALE

0 10 20 40

1" = 20 FEET

KEYNOTES:

1. FULL-DEPTH ASPHALT PAVEMENT PER 1/31
2. HMA OVERLAY PER 2/31
3. ASPHALT DRIVEWAY PER 2/18 4/31
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9. MAILBOX SUPPORT TYPE 1 PER WSDOT STD. PLAN H-70.10-01
10. MONUMENT CASE AND COVER

LEGEND:

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- CEMENT CONCRETE SIDEWALK OR DRIVEWAY
- ASPHALT PAVEMENT OVERLAY 2/31
- POROUS CONCRETE PAVEMENT 3/31
- XXX PROPOSED MAJOR CONTOURS
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WILLIAM J. FIERST
STATE OF WASHINGTON
41803
REGISTERED PROFESSIONAL ENGINEER
02/19/2019

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CHECKED A. BRAUN
APPROVED W. FIERST
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WEST VALLEY HIGHWAY ROADWAY IMPROVEMENT PROJECT
ROADWAY PLAN & PROFILE

PROJECT/APPLICANT
CITY OF PACIFIC
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PACIFIC, WASHINGTON 98047

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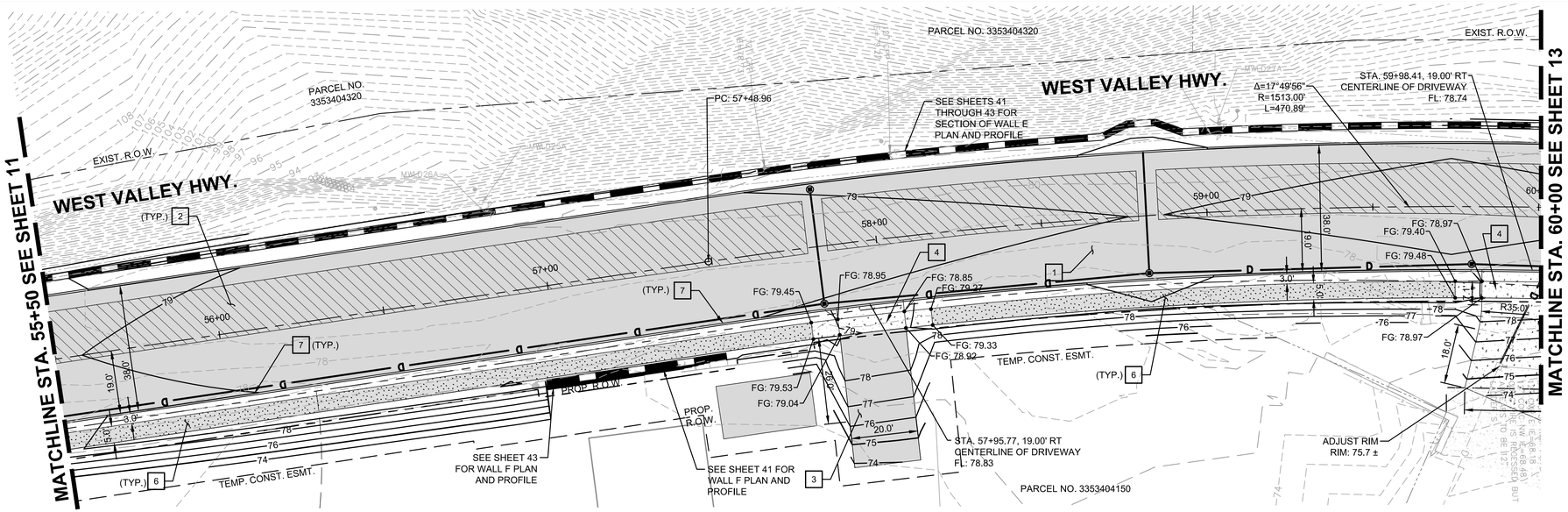
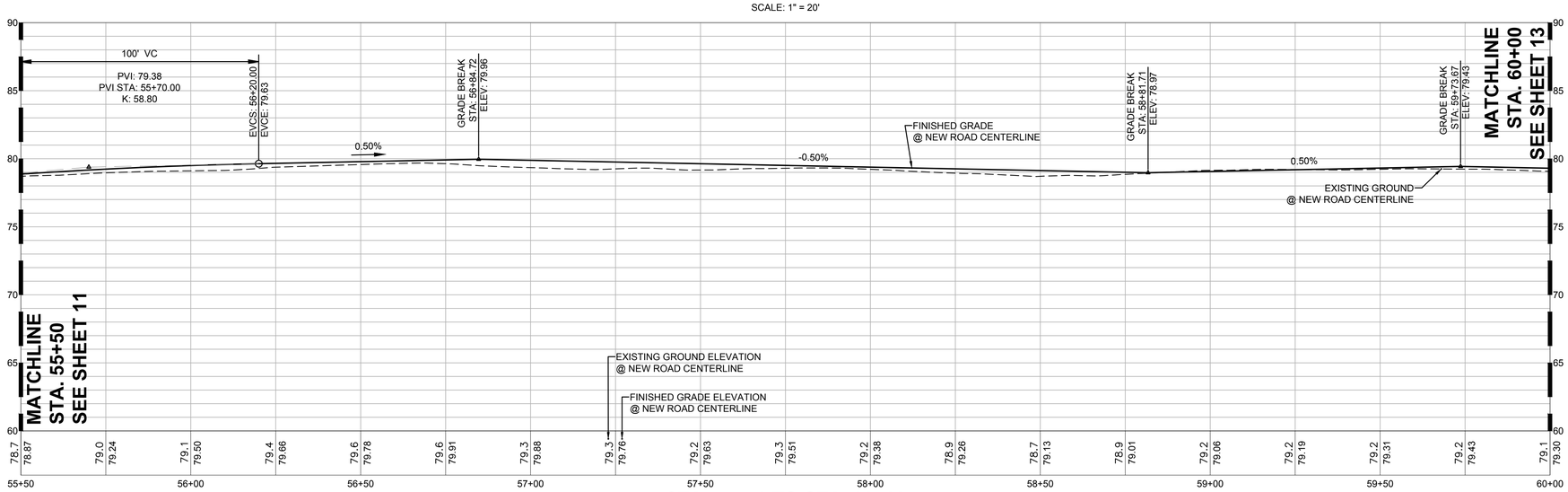


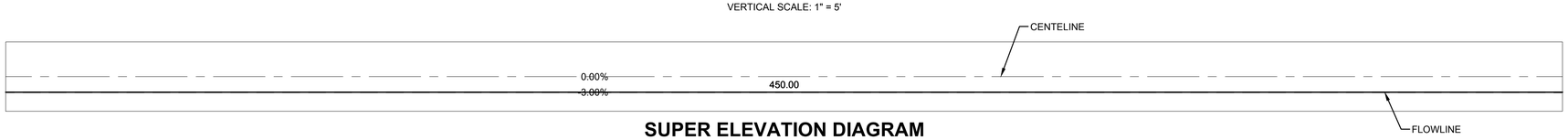
STA. 55+50 TO STA. 60+00
ROAD PLAN

SCALE: 1" = 20'



STA. 55+50 TO STA. 60+00
ROAD PROFILE

VERTICAL SCALE: 1" = 5'



SUPER ELEVATION DIAGRAM

GRAPHIC SCALE

0 10 20 40

1" = 20 FEET

KEYNOTES:

1. FULL-DEPTH ASPHALT PAVEMENT PER (1/31)
2. HMA OVERLAY PER (2/31)
3. ASPHALT DRIVEWAY PER (2/18) (4/31)
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8. PARALLEL CURB RAMP (TYPE PARALLEL A) PER WSDOT STD PLAN F-40.12-03
9. MAILBOX SUPPORT TYPE 1 PER WSDOT STD. PLAN H-70.10-01
10. MONUMENT CASE AND COVER

LEGEND:

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- CEMENT CONCRETE SIDEWALK OR DRIVEWAY
- ASPHALT PAVEMENT OVERLAY (2/31)
- POROUS CONCRETE PAVEMENT (3/31)
- XXX — PROPOSED MAJOR CONTOURS
- XXX — PROPOSED MINOR CONTOURS
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WILLIAM J. FIERST — STATE OF WASHINGTON — #1803 — REGISTERED PROFESSIONAL ENGINEER

02/19/2019

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CHECKED A. BRAUN
APPROVED W. FIERST
SCALE AS NOTED
DATE FEBRUARY 2019

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PACIFIC, WASHINGTON 98047

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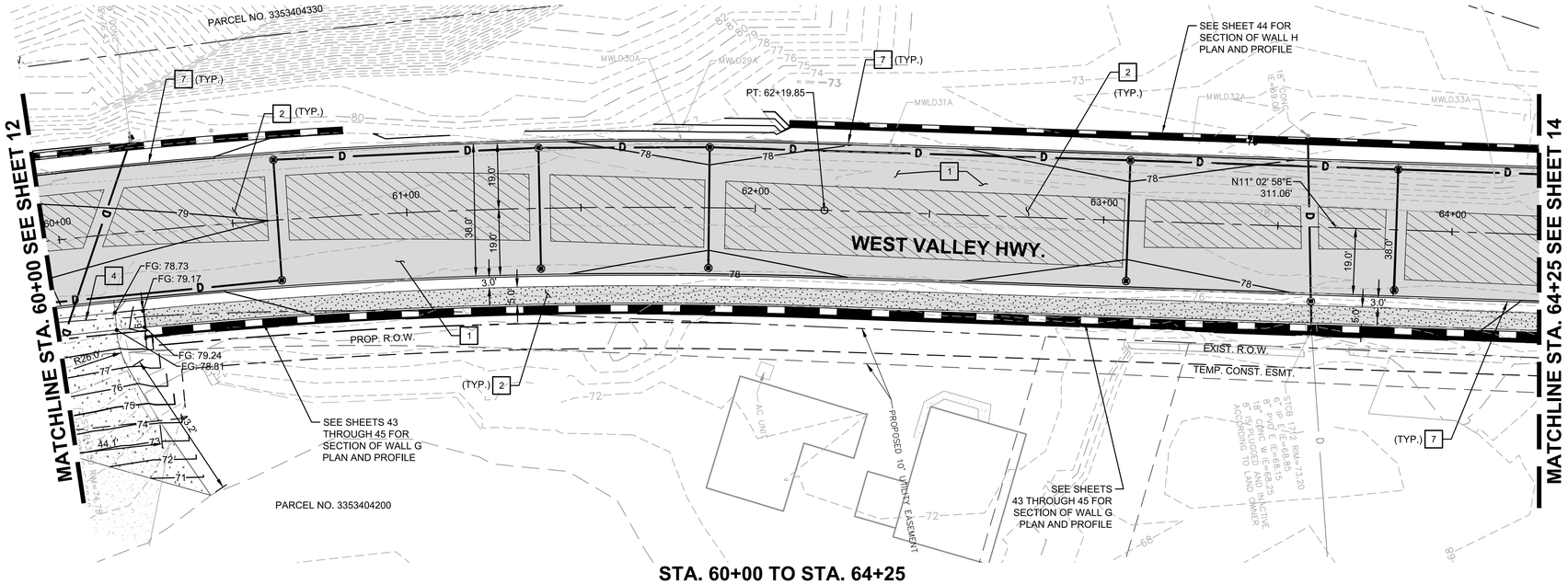
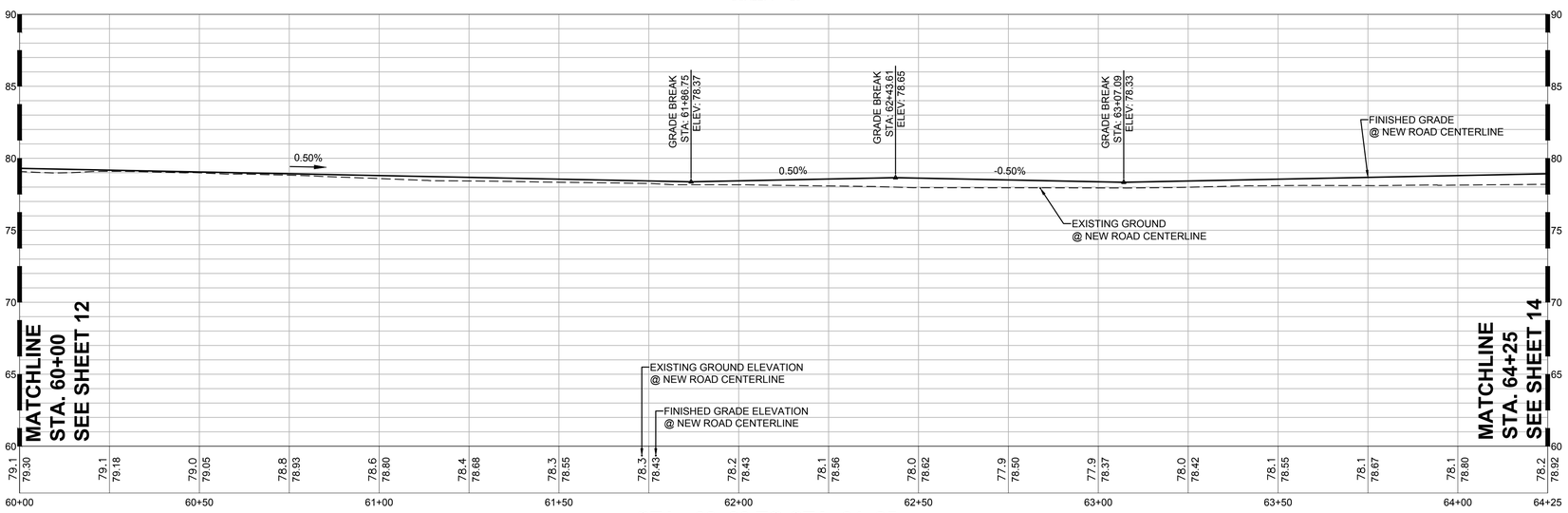


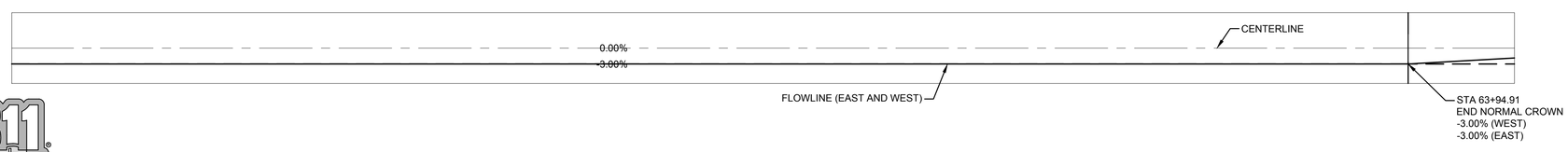
STA. 60+00 TO STA. 64+25
ROAD PLAN

SCALE: 1" = 20'



STA. 60+00 TO STA. 64+25
ROAD PROFILE

VERTICAL SCALE: 1" = 5'



SUPER ELEVATION DIAGRAM

GRAPHIC SCALE

0 10 20 40

1" = 20 FEET

KEYNOTES:

1. FULL-DEPTH ASPHALT PAVEMENT PER 1/31
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9. MAILBOX SUPPORT TYPE 1 PER WSDOT STD. PLAN H-70.10-01
10. MONUMENT CASE AND COVER

LEGEND:

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- XXX PROPOSED MAJOR CONTOURS
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WILLIAM J. FIERST STATE OF WASHINGTON 41803 REGISTERED PROFESSIONAL ENGINEER 02/19/2019

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Pacific, WA 98047
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DRAWN A. TURPIN
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SCALE AS NOTED
DATE FEBRUARY 2019

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ROADWAY PLAN & PROFILE

PROJECT/APPLICANT CITY OF PACIFIC 100 3rd AVENUE SE PACIFIC, WASHINGTON 98047

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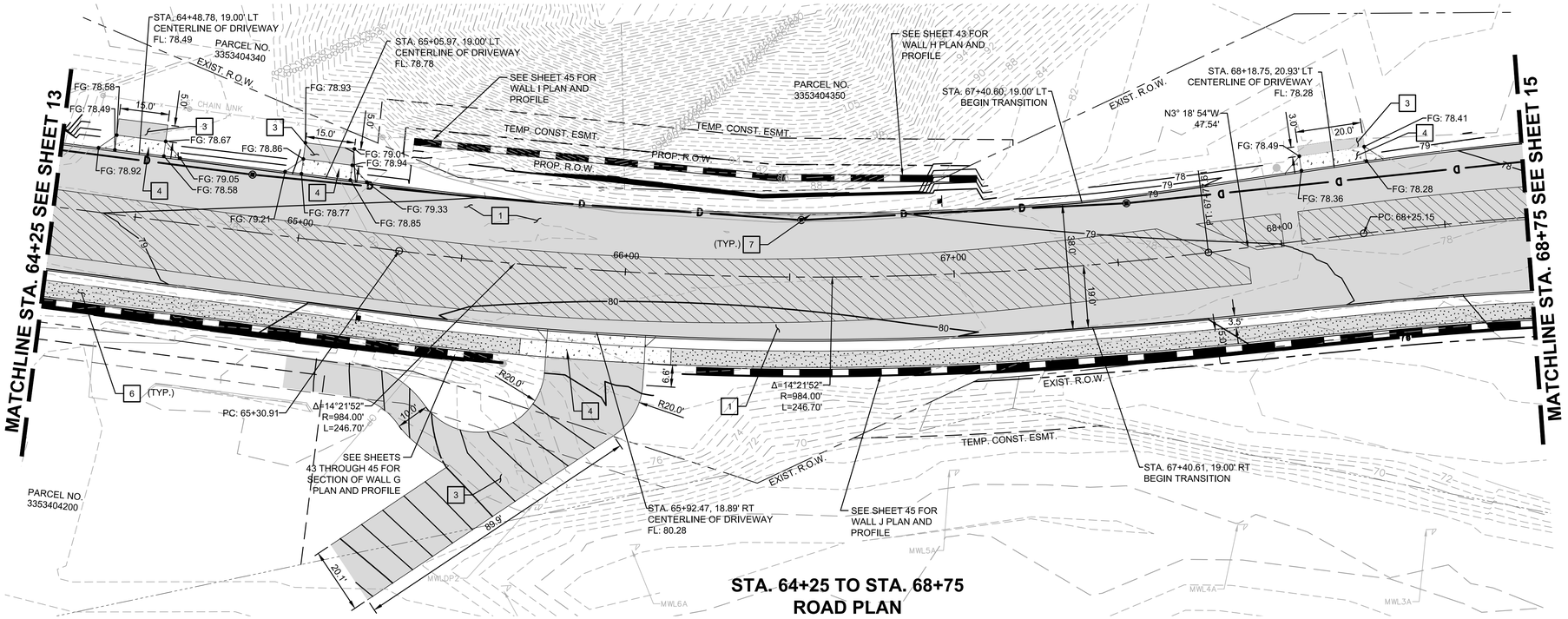
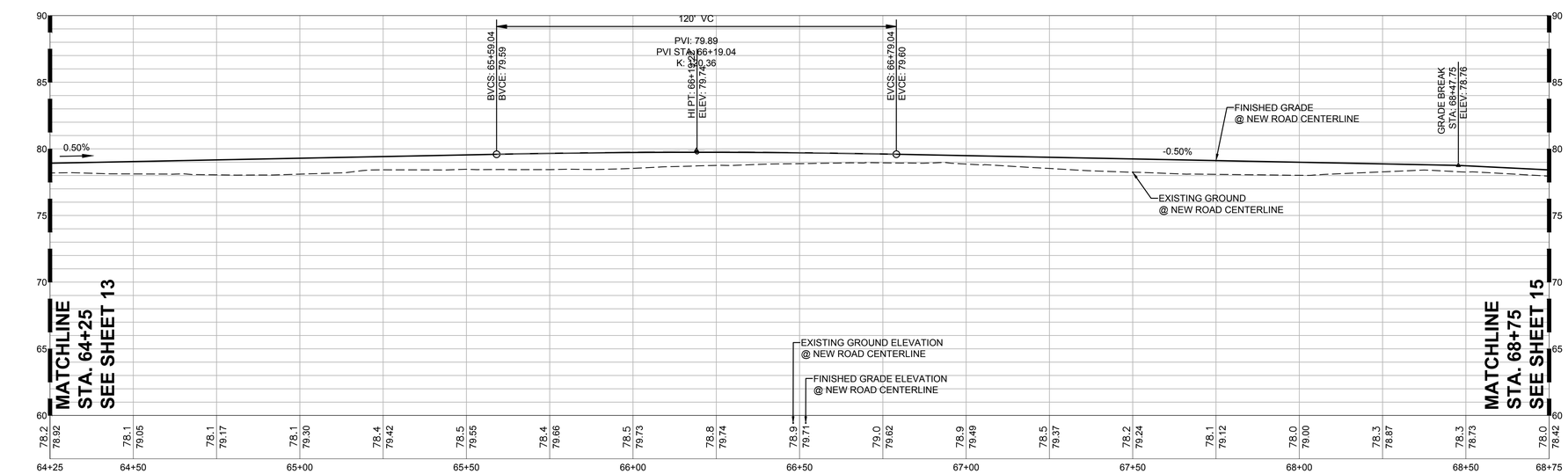


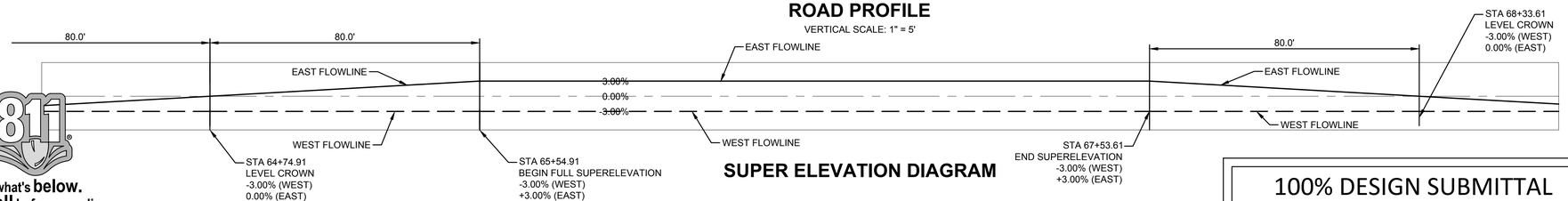
STA. 64+25 TO STA. 68+75
ROAD PLAN

SCALE: 1" = 20'



STA. 64+25 TO STA. 68+75
ROAD PROFILE

VERTICAL SCALE: 1" = 5'



SUPER ELEVATION DIAGRAM

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GRAPHIC SCALE
0 10 20 40
1" = 20 FEET

KEYNOTES:

1. FULL-DEPTH ASPHALT PAVEMENT PER (1/31)
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WILLIAM J. FIERST
STATE OF WASHINGTON
11803
REGISTERED
PROFESSIONAL ENGINEER
02/19/2019

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WEST VALLEY HIGHWAY ROADWAY IMPROVEMENT PROJECT
ROADWAY PLAN & PROFILE

PROJECT/APPLICANT
CITY OF PACIFIC
100 3rd AVENUE SE
PACIFIC, WASHINGTON 98047

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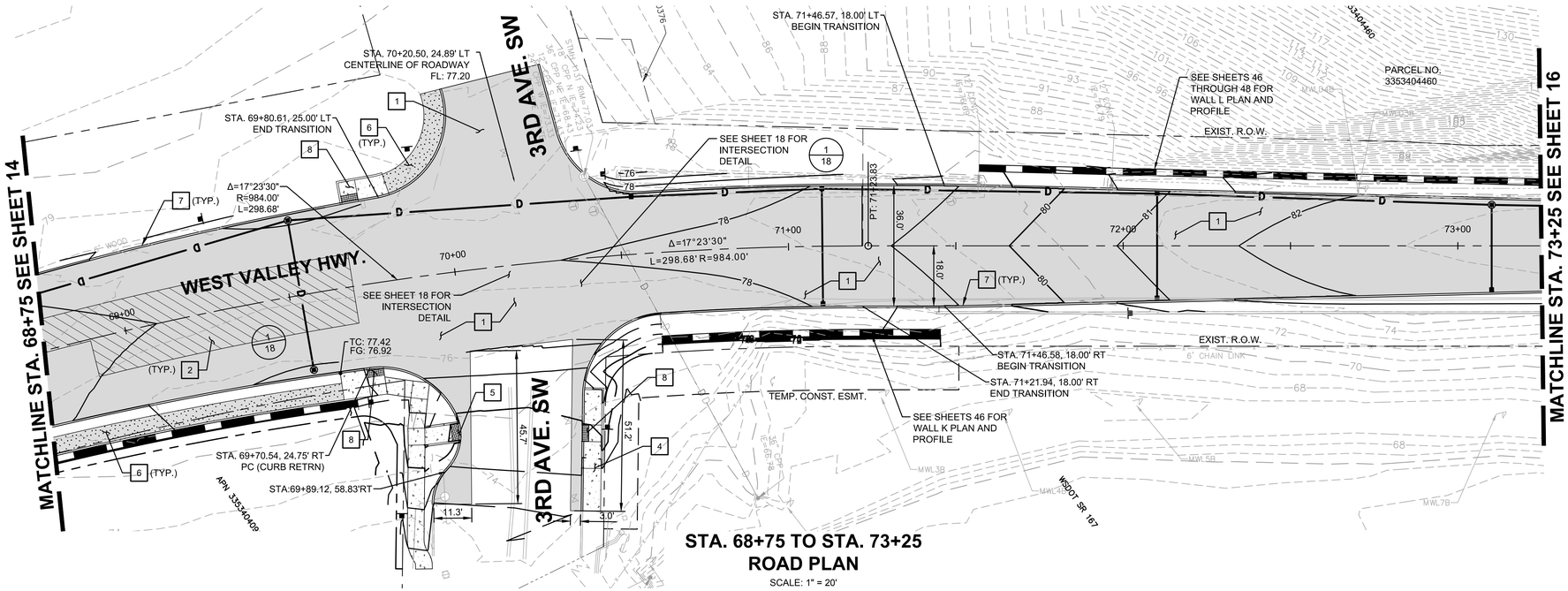
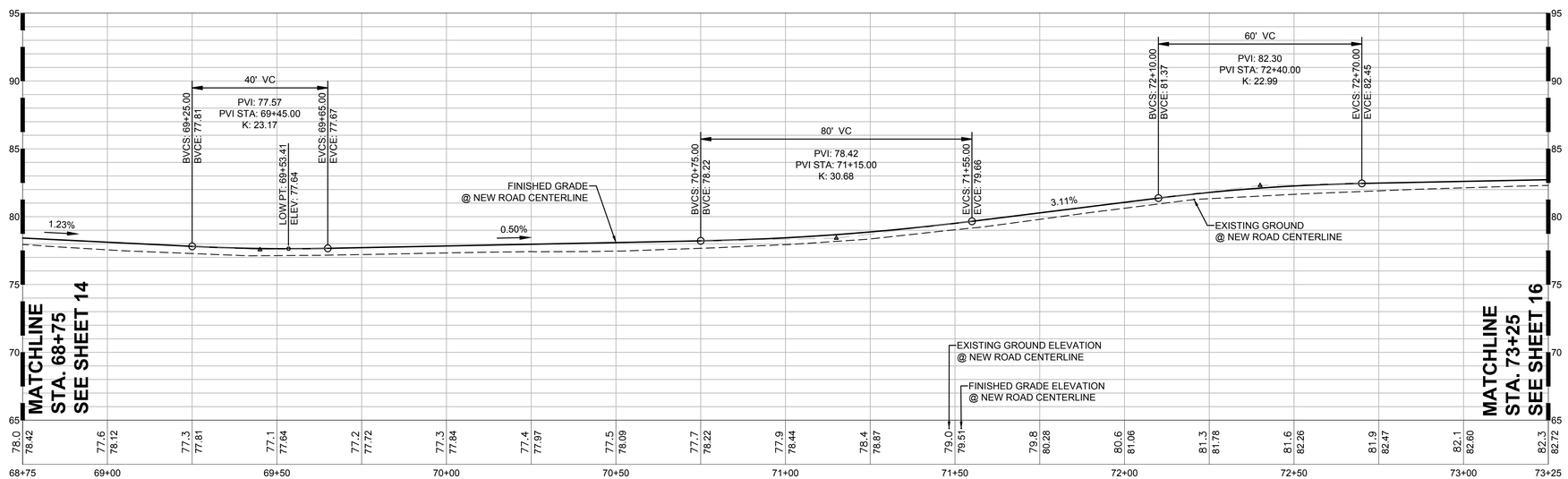
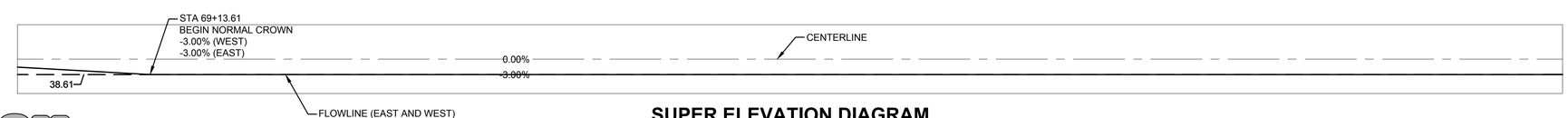


STA. 68+75 TO STA. 73+25
ROAD PLAN
SCALE: 1" = 20'



STA. 68+75 TO STA. 73+25
ROAD PROFILE
VERTICAL SCALE: 1" = 5'



SUPER ELEVATION DIAGRAM

GRAPHIC SCALE
0 10 20 40
1" = 20 FEET

KEYNOTES:

1. FULL-DEPTH ASPHALT PAVEMENT PER 1/31
2. HMA OVERLAY PER 2/31
3. ASPHALT DRIVEWAY PER 2/18 4/31
4. CEMENT CONCRETE SIDEWALK PER WSDOT STD PLAN F-30.10-03
5. PERPENDICULAR CURB RAMP (TYPE PERPENDICULAR A) PER WSDOT STD PLAN F-40.15-03
6. POROUS CONCRETE PAVEMENT PER 3/31
7. CEMENT CONCRETE TRAFFIC CURB AND GUTTER PER WSDOT STD. PLAN F-10.12-03
8. PARALLEL CURB RAMP (TYPE PARALLEL A) PER WSDOT STD PLAN F-40.12-03
9. MAILBOX SUPPORT TYPE 1 PER WSDOT STD. PLAN H-70.10-01
10. MONUMENT CASE AND COVER

LEGEND:

- ASPHALT PAVEMENT 1/31
- CEMENT CONCRETE SIDEWALK OR DRIVEWAY
- ASPHALT PAVEMENT OVERLAY 2/31
- POROUS CONCRETE PAVEMENT 3/31
- XXX PROPOSED MAJOR CONTOURS
- XXX PROPOSED MINOR CONTOURS
- XXX EXISTING MAJOR CONTOURS
- XXX EXISTING MINOR CONTOURS
- PROPOSED WALL

GENERAL NOTES

1. ALL DIMENSIONS AND STATION AND OFFSET REFERENCES ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.
2. PROVIDE MONUMENTS AT ALL HORIZONTAL PC, PT, AND PI LOCATIONS.

WILLIAM J. FIERST
STATE OF WASHINGTON
41803
REGISTERED
PROFESSIONAL ENGINEER
02/19/2019

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DRAWN A. TURPIN
CHECKED A. BRAUN
APPROVED W. FIERST
SCALE AS NOTED
DATE FEBRUARY 2019

WEST VALLEY HIGHWAY ROADWAY IMPROVEMENT PROJECT
ROADWAY PLAN & PROFILE

PROJECT/APPLICANT
CITY OF PACIFIC
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PACIFIC, WASHINGTON 98047

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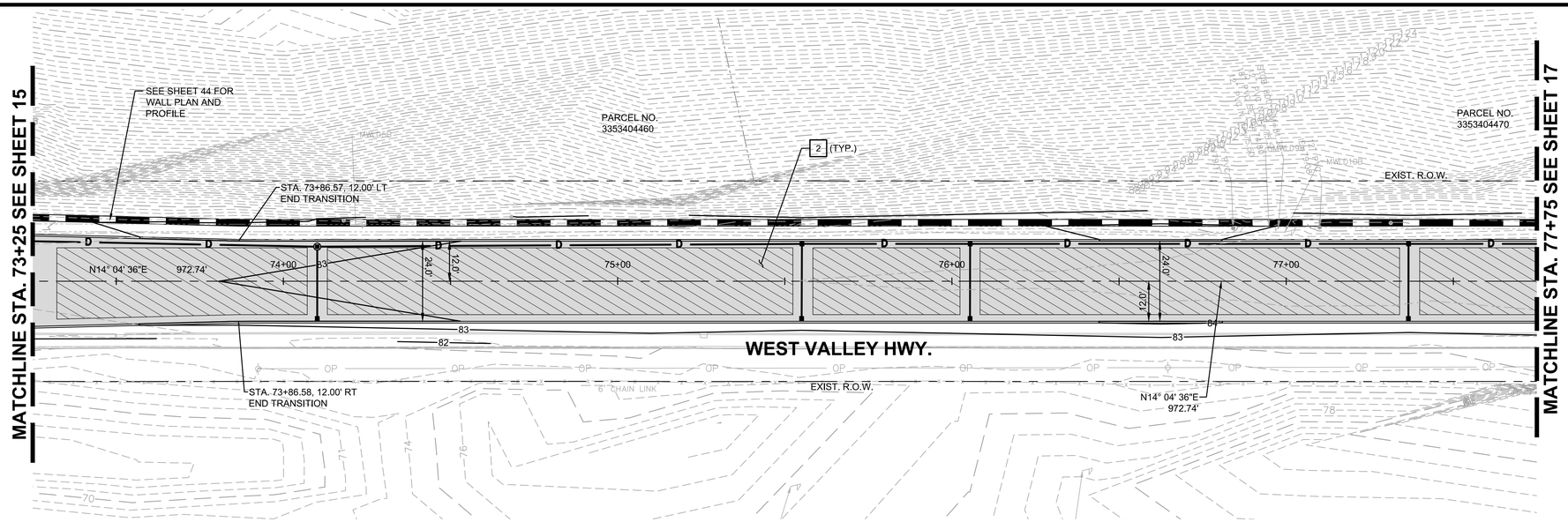
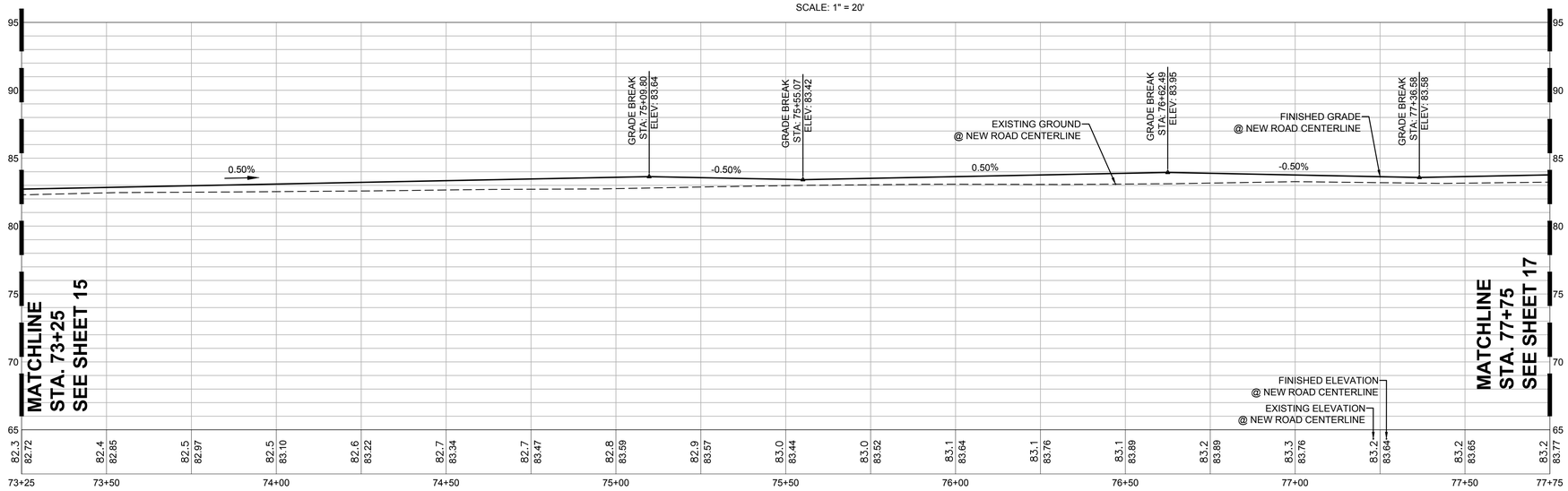


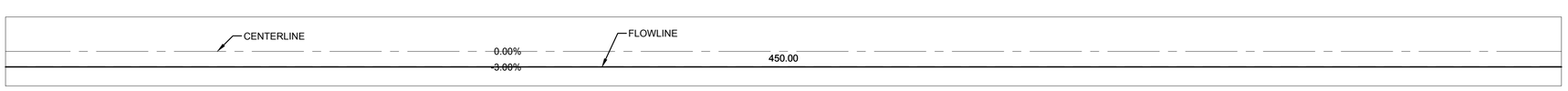
STA. 73+25 TO STA. 77+75
ROAD PLAN

SCALE: 1" = 20'

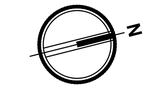


STA. 73+25 TO STA. 77+75
ROAD PROFILE

VERTICAL SCALE: 1" = 5'



SUPER ELEVATION DIAGRAM



GRAPHIC SCALE

0 10 20 40

1" = 20 FEET

KEYNOTES:

1. FULL-DEPTH ASPHALT PAVEMENT PER 1/31
2. HMA OVERLAY PER 2/31
3. ASPHALT DRIVEWAY PER 2/18 4/31
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6. POROUS CONCRETE PAVEMENT PER 3/31
7. CEMENT CONCRETE TRAFFIC CURB AND GUTTER PER WSDOT STD. PLAN F-10.12-03
8. PARALLEL CURB RAMP (TYPE PARALLEL A) PER WSDOT STD PLAN F-40.12-03
9. MAILBOX SUPPORT TYPE 1 PER WSDOT STD. PLAN H-70.10-01
10. MONUMENT CASE AND COVER

LEGEND:

- ASPHALT PAVEMENT 1/31
- CEMENT CONCRETE SIDEWALK OR DRIVEWAY
- ASPHALT PAVEMENT OVERLAY 2/31
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- XXX PROPOSED MAJOR CONTOURS
- XXX PROPOSED MINOR CONTOURS
- XXX EXISTING MAJOR CONTOURS
- XXX EXISTING MINOR CONTOURS
- PROPOSED WALL

GENERAL NOTES

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WILLIAM J. FIERST
STATE OF WASHINGTON
41803
REGISTERED
PROFESSIONAL ENGINEER
02/19/2019

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Fax: (253)887-9910

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DRAWN A. TURPIN
CHECKED A. BRAUN
APPROVED W. FIERST
SCALE AS NOTED
DATE FEBRUARY 2019

WEST VALLEY HIGHWAY ROADWAY IMPROVEMENT PROJECT
ROADWAY PLAN & PROFILE

PROJECT/APPLICANT
CITY OF PACIFIC
100 3rd AVENUE SE
PACIFIC, WASHINGTON 98047

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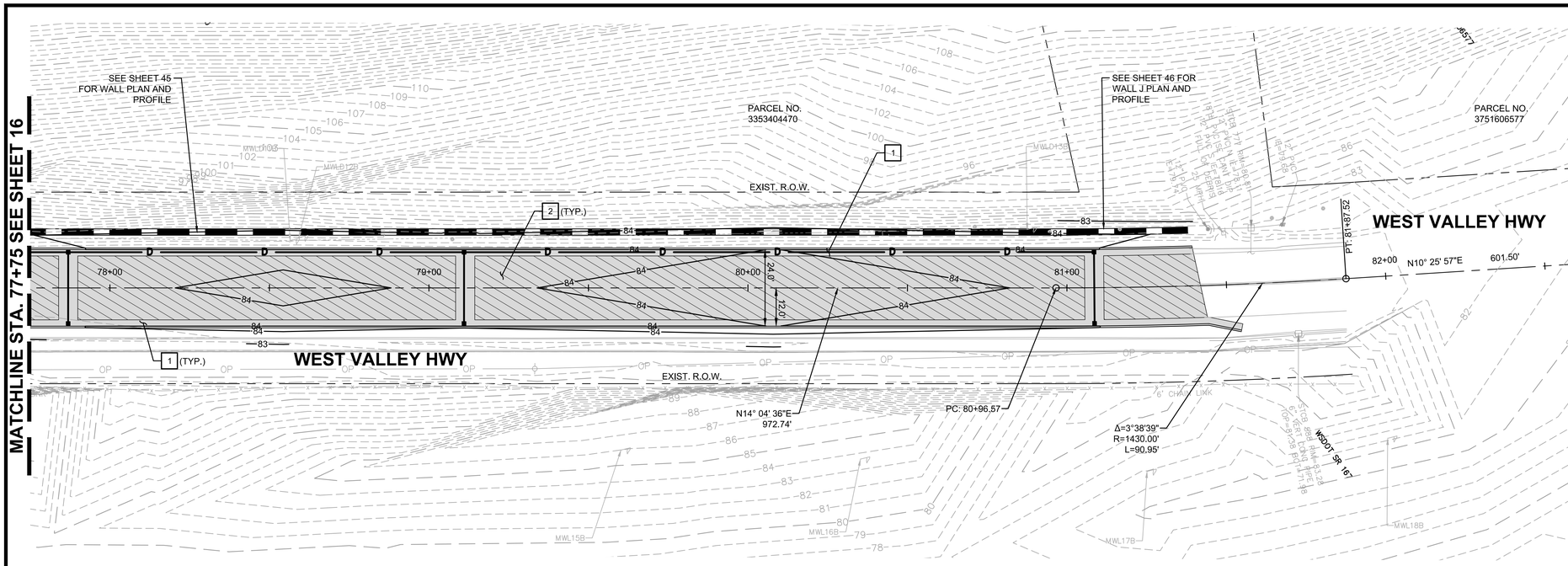

GRAPHIC SCALE

0 10 20 40

1" = 20 FEET

KEYNOTES:

1. FULL-DEPTH ASPHALT PAVEMENT PER (1/31)
2. HMA OVERLAY PER (2/31)
3. ASPHALT DRIVEWAY PER (2/18) (4/31)
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6. POROUS CONCRETE PAVEMENT PER (3/31)
7. CEMENT CONCRETE TRAFFIC CURB AND GUTTER PER WSDOT STD. PLAN F-10.12-03
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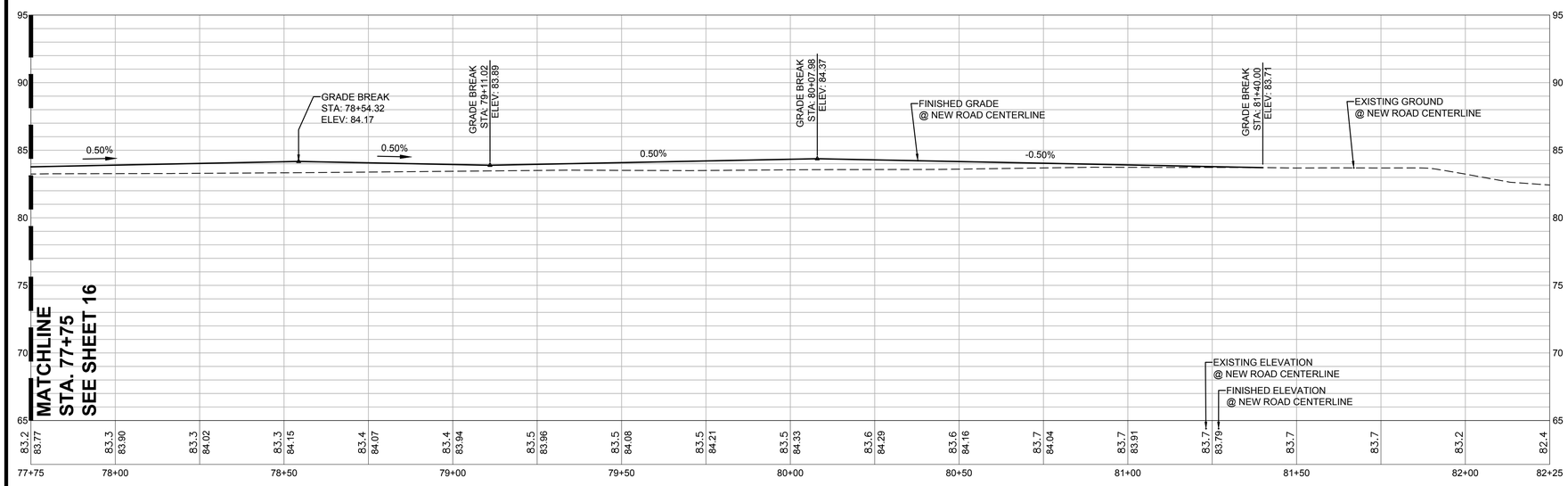
9. MAILBOX SUPPORT TYPE 1 PER WSDOT STD. PLAN H-70.10-01
10. MONUMENT CASE AND COVER

LEGEND:

- ASPHALT PAVEMENT (1/31)
- CEMENT CONCRETE SIDEWALK OR DRIVEWAY
- ASPHALT PAVEMENT OVERLAY (2/31)
- POROUS CONCRETE PAVEMENT (3/31)
- XXX PROPOSED MAJOR CONTOURS
- XXX PROPOSED MINOR CONTOURS
- XXX EXISTING MAJOR CONTOURS
- XXX EXISTING MINOR CONTOURS
- PROPOSED WALL

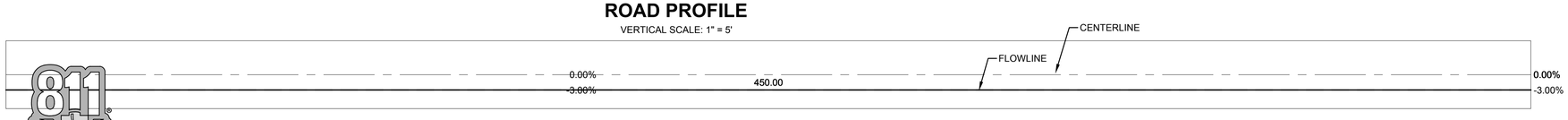
STA. 77+75 TO STA.82+25
ROAD PLAN

SCALE: 1" = 20'



STA. 79+50 TO STA.82+25
ROAD PROFILE

VERTICAL SCALE: 1" = 5'



SUPER ELEVATION DIAGRAM

GENERAL NOTES

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WILLIAM J. FIERST — STATE OF WASHINGTON — 41803 — REGISTERED PROFESSIONAL ENGINEER — 02/19/2019

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CHECKED A. BRAUN
APPROVED W. FIERST
SCALE AS NOTED
DATE FEBRUARY 2019

WEST VALLEY HIGHWAY ROADWAY IMPROVEMENT PROJECT
ROADWAY PLAN & PROFILE

PROJECT/APPLICANT CITY OF PACIFIC 100 3rd AVENUE SE PACIFIC, WASHINGTON 98047

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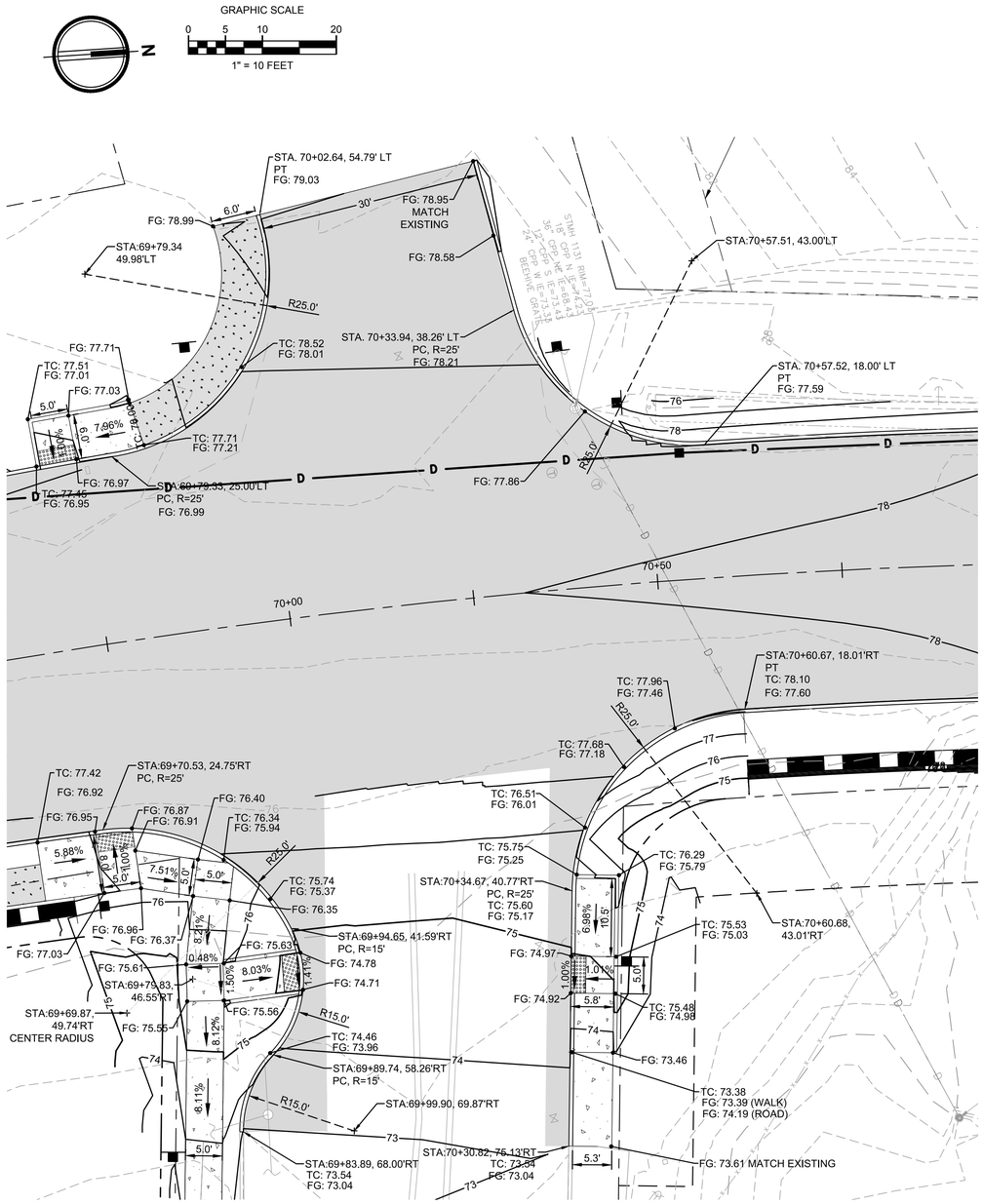


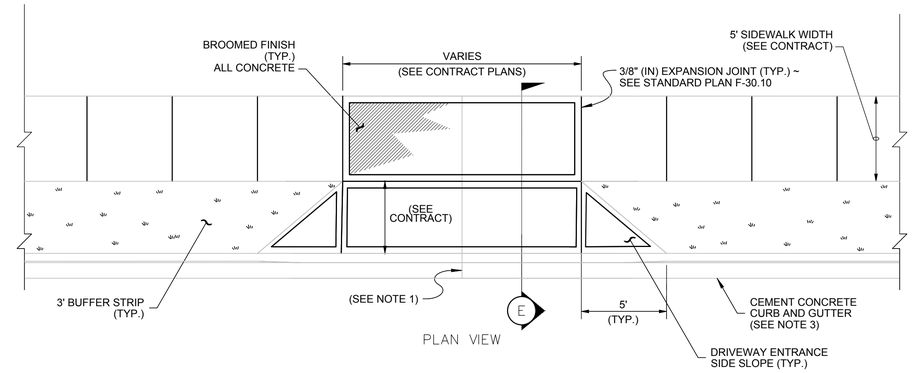
3RD AVE SW

STA. 60+50 TO STA. 71+00
3RD AND WEST VALLEY
INTERSECTION

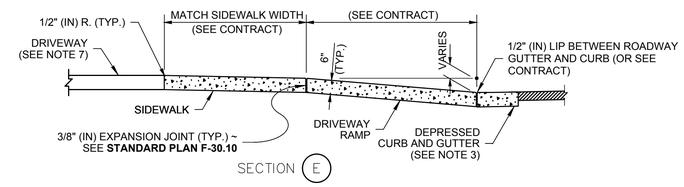
SCALE: 1" = 10'

3rd AVE SW INTERSECTION DETAIL 1

1" = 10'



PLAN VIEW



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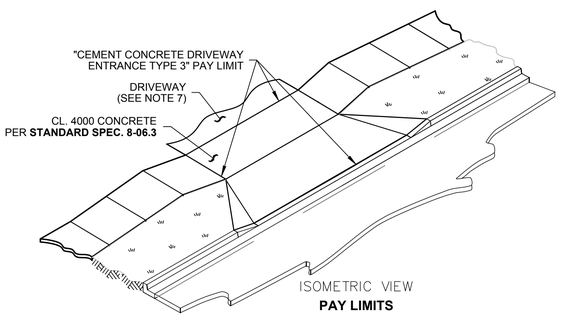

ISOMETRIC VIEW

PAY LIMITS

LEGEND

* 1.5% OR FLATTER RECOMMENDED FOR DESIGN/FORMWORK (2% MAX.)

** 7.5% OR FLATTER RECOMMENDED FOR DESIGN/FORMWORK (8.3% MAX.) (SEE NOTE 6)

NOTES:

1. WHEN THE DRIVEWAY WIDTH EXCEEDS 15' (FT), CONSTRUCT A FULL DEPTH EXPANSION JOINT WITH 3/8" (IN) JOINT FILLER ALONG THE DRIVEWAY CENTERLINE. SEE STANDARD PLAN F-30.10. CONSTRUCT EXPANSION JOINTS PARALLEL WITH THE CENTERLINE AS REQUIRED AT 15' (FT) MAXIMUM SPACING WHEN DRIVEWAY WIDTHS EXCEED 30' (FT).
2. SEE STANDARD PLAN F-30.10 FOR SIDEWALK DETAILS.
3. CURB AND GUTTER SHOWN; SEE THE CONTRACT PLANS FOR THE CURB DESIGN SPECIFIED. SEE STANDARD PLAN F-10.12 FOR CURB DETAILS.
4. AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF DRIVEWAY ENTRANCES.
5. WHERE "GRADE BREAK" IS CALLED OUT, THE ENTIRE LENGTH OF THE LINE BETWEEN THE TWO ADJACENT SURFACE PLANES SHALL BE FLUSH.
6. THE PEDESTRIAN RAMP LENGTH IS NOT REQUIRED TO EXCEED15 FEET (UNLESS OTHERWISE SHOWN IN THE CONTRACT PLANS). WHEN APPLYING THE 15-FOOT MAX. LENGTH (MEASURED FROM BACK OF SIDEWALK) THE RUNNING SLOPE OF THE PEDESTRIAN RAMP IS ALLOWED TO EXCEED 8.3%. USE A SINGLE CONSTANT SLOPE FROM BOTTOM OF RAMP TO TOP OF RAMP TO MATCH INTO THE SIDEWALK OVER A HORIZONTAL DISTANCE OF 15 FEET.
7. BEYOND LIMITS SHOWN. PAY ITEM DOES NOT INCLUDE DRIVEWAY. SEE CONTRACT PLANS.

DRIVEWAY DETAIL 2

1" = 10'

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WILLIAM J. FIERST
STATE OF WASHINGTON
41803
REGISTERED
PROFESSIONAL ENGINEER
02/19/2019

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Fax: (253)887-9910

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DRAWN A. TURPIN
CHECKED A. BRAUN
APPROVED W. FIERST
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DATE FEBRUARY 2019

WEST VALLEY HIGHWAY ROADWAY IMPROVEMENT PROJECT
ROADWAY DETAILS

PROJECT/APPLICANT
CITY OF PACIFIC
100 3rd AVENUE SE
PACIFIC, WASHINGTON 98047

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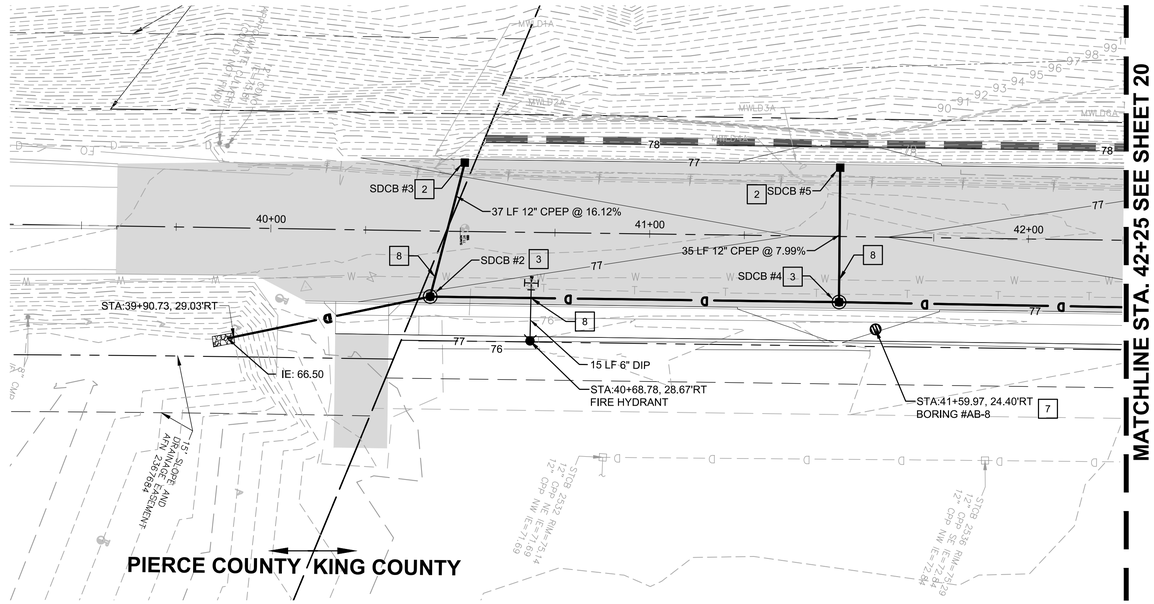
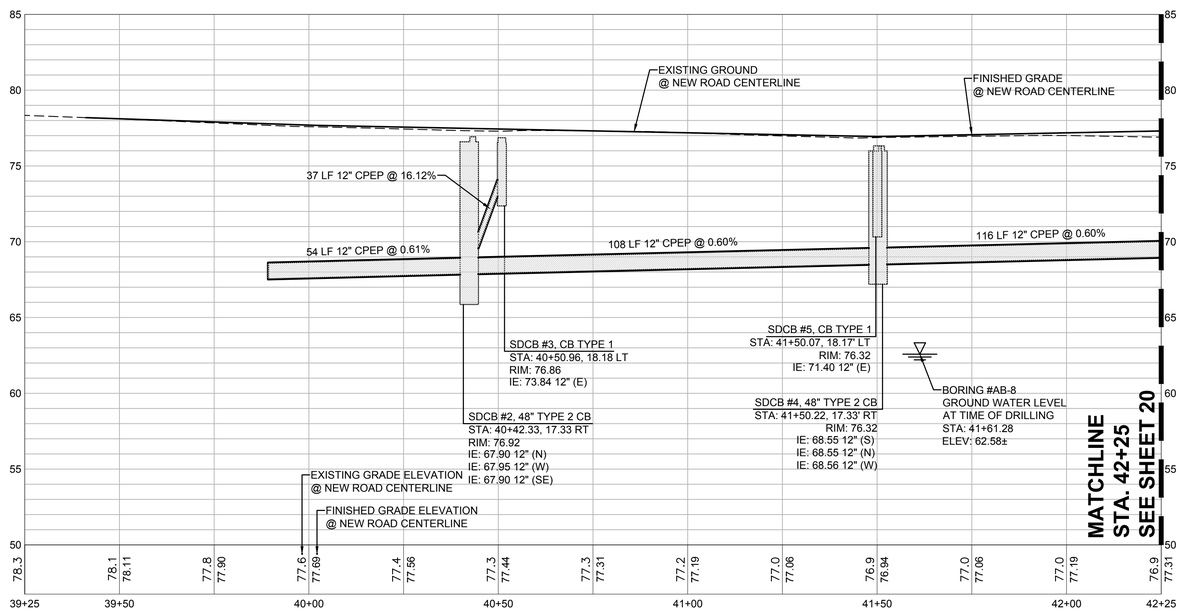


STA. 37+75 TO STA. 42+25
DRAINAGE PLAN

SCALE: 1" = 20'



STA. 37+75 TO STA. 42+25
DRAINAGE PROFILE

VERTICAL SCALE: 1" = 5'

GRAPHIC SCALE

0 10 20 40

1" = 20 FEET

KEYNOTES

1. CONNECTION TO EXISTING DRAINAGE STRUCTURE
2. CATCH BASIN TYPE 1 PER WSDOT STD. PLAN B-50.20-02.
3. CATCH BASIN TYPE 2, 48 IN. DIAM. PER WSDOT STD. PLAN B-10.20-02.
4. RECTANGULAR VANED GRATE PER WSDOT STD. PLAN B-30.30-03.
5. RECTANTULAR BI-DIRECTIONAL VANED GRATE PER WSDOT STD. PLAN B-30.40-03.
6. COMBINATION INLET PER WSDOT STD. PLAN B-25.20-02.
7. APPROXIMATE SOIL BORING LOCATION. HORIZONTAL AND VERTICAL DATA PROVIDED BY GEOTECH REPORT BY AMEC ENVIROMENT AND INFRASTRUCTURE, INC.
8. UTILITY CROSSING. MINIMUM 18" CLEAR BETWEEN WITHOUT CONCRETE ENCASEMENT.

LEGEND

- CATCH BASIN TYPE 1
- CATCH BASIN TYPE 2
- RIP-RAP OUTFALL (1/32)
- RETAINING WALL
- D — STORM DRAINAGE PIPING
- W — WATER LINE PIPING
- FIRE HYDRANT
- WATER METER
- VALVE
- SOIL BORING
- GROUND WATER ELEVATION

GENERAL NOTES

1. STORM DRAIN (D) PIPE SHALL BE CORRUGATED POLYETHYLENE PIPE UNLESS NOTED OTHERWISE.
2. ENCASE WATERLINE IN 6" THICK CDF WHERE VERTICAL CLEARANCE BETWEEN UTILITIES ARE LESS THAN 18". ENCASE WATERLINE FOR 20' WITH CROSSING UTILITY AT CENTER.
3. ENCASE WATERLINE AS ABOVE WHERE THE WATERLINE PASSES BELOW OTHER UTILITIES, REGARDLESS OF VERTICAL CLEARANCE.
4. CONTRACTOR SHALL CONNECT ALL WALL DRAINAGE PIPING TO NEAREST CATCH BASIN.
5. ALL GRATES IN CURB AND GUTTER SHALL BE COMBINATION INLET PER WSDOT B-25.20-02.

WILLIAM J. FIERST — STATE OF WASHINGTON — 41803 — REGISTERED PROFESSIONAL ENGINEER — 02/19/2019

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APPROVED W. FIERST
SCALE AS NOTED
DATE FEBRUARY 2019

WEST VALLEY HIGHWAY ROADWAY IMPROVEMENT PROJECT
DRAINAGE & UTILITY PLAN & PROFILE

PROJECT/APPLICANT
CITY OF PACIFIC
100 3rd AVENUE SE
PACIFIC, WASHINGTON 98047

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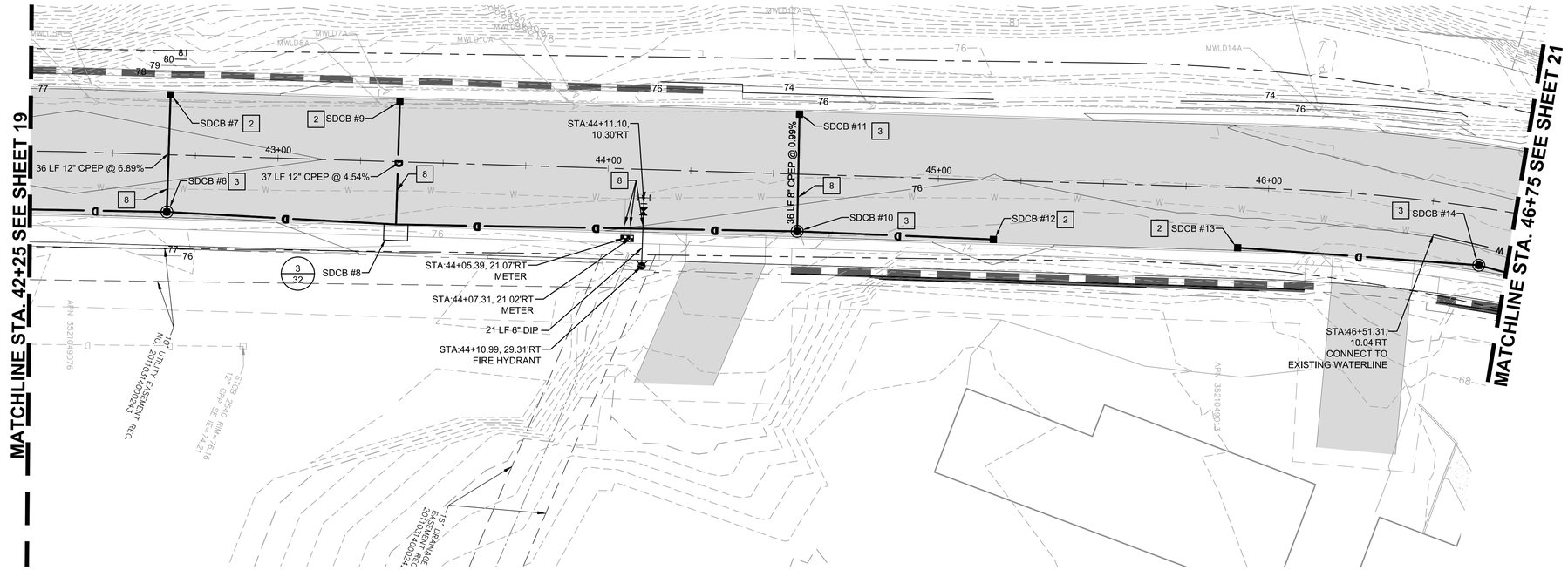
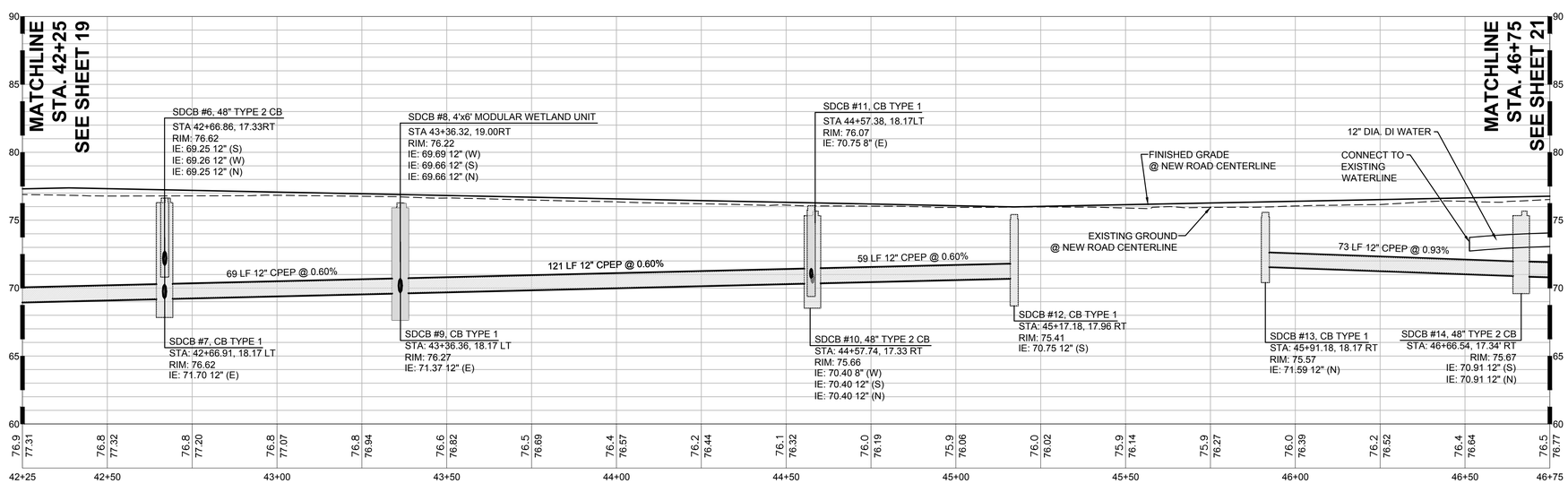


STA. 42+25 TO STA. 46+75
DRAINAGE PLAN

SCALE: 1" = 20'



STA. 42+25 TO STA. 46+75
DRAINAGE PROFILE

VERTICAL SCALE: 1" = 5'

GRAPHIC SCALE

0 10 20 40

1" = 20 FEET

KEYNOTES

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2. CATCH BASIN TYPE 1 PER WSDOT STD. PLAN B-50.20-02.
3. CATCH BASIN TYPE 2, 48 IN. DIAM. PER WSDOT STD. PLAN B-10.20-02.
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5. RECTANTULAR BI-DIRECTIONAL VANED GRATE PER WSDOT STD. PLAN B-30.40-03.
6. COMBINATION INLET PER WSDOT STD. PLAN B-25.20-02.
7. APPROXIMATE SOIL BORING LOCATION. HORIZONTAL AND VERTICAL DATA PROVIDED BY GEOTECH REPORT BY AMEC ENVIROMENT AND INFRASTRUCTURE, INC.
8. UTILITY CROSSING. MINIMUM 18" CLEAR BETWEEN WITHOUT CONCRETE ENCASEMENT.

LEGEND

- CATCH BASIN TYPE 1
- CATCH BASIN TYPE 2
- RIP-RAP OUTFALL (1/32)
- RETAINING WALL
- STORM DRAINAGE PIPING
- WATER LINE PIPING
- FIRE HYDRANT
- WATER METER
- VALVE
- SOIL BORING
- GROUND WATER ELEVATION

GENERAL NOTES

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2. ENCASE WATERLINE IN 6" THICK CDF WHERE VERTICAL CLEARANCE BETWEEN UTILITIES ARE LESS THAN 18". ENCASE WATERLINE FOR 20' WITH CROSSING UTILITY AT CENTER.
3. ENCASE WATERLINE AS ABOVE WHERE THE WATERLINE PASSES BELOW OTHER UTILITIES, REGARDLESS OF VERTICAL CLEARANCE.
4. CONTRACTOR SHALL CONNECT ALL WALL DRAINAGE PIPING TO NEAREST CATCH BASIN.
5. ALL GRATES IN CURB AND GUTTER SHALL BE COMBINATION INLET PER WSDOT B-25.20-02.

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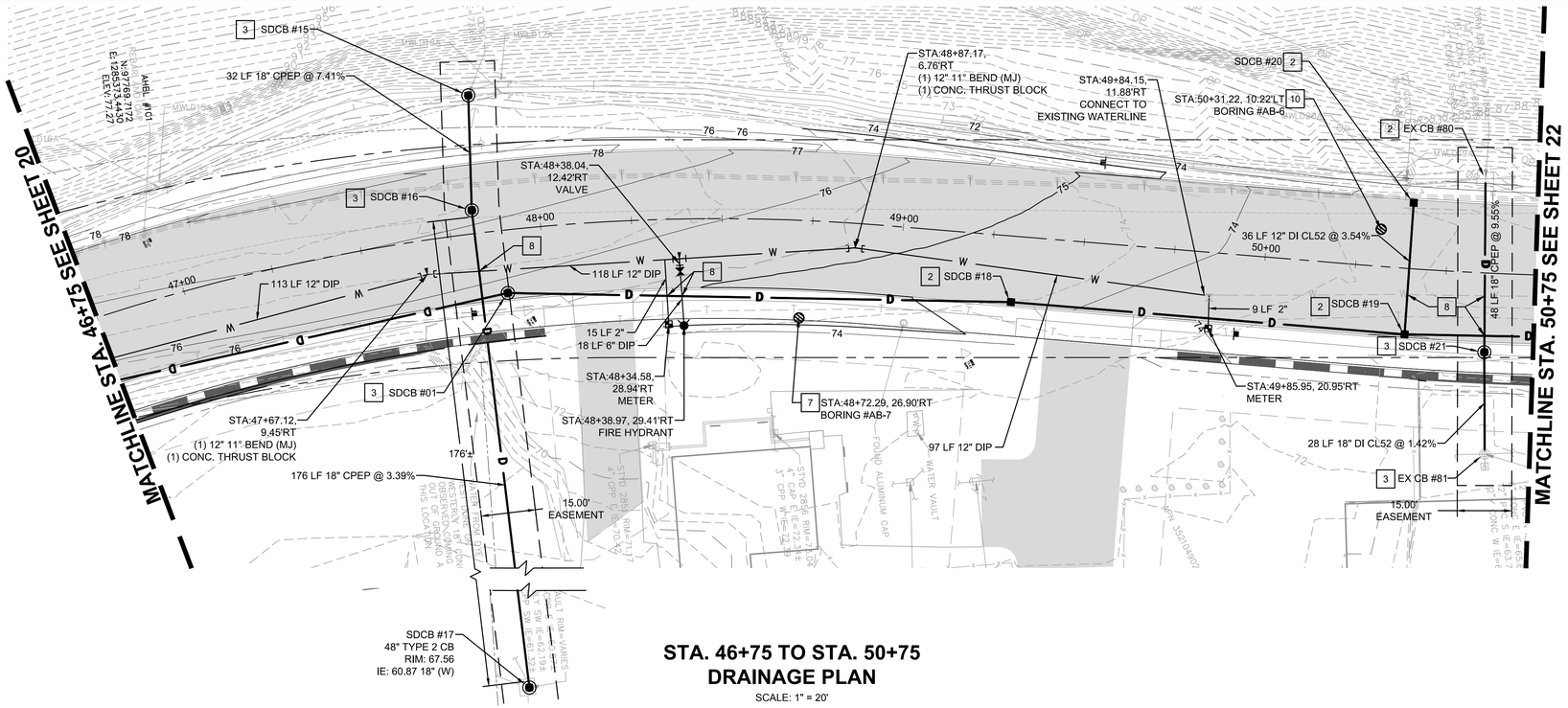
Pacific, WA 98047
Phone: (253)929-1110
Fax: (253)887-9910

DESIGNED A. TURPIN
DRAWN A. TURPIN
CHECKED A. BRAUN
APPROVED W. FIERST
SCALE AS NOTED
DATE FEBRUARY 2019

WEST VALLEY HIGHWAY ROADWAY IMPROVEMENT PROJECT
DRAINAGE & UTILITY PLAN & PROFILE

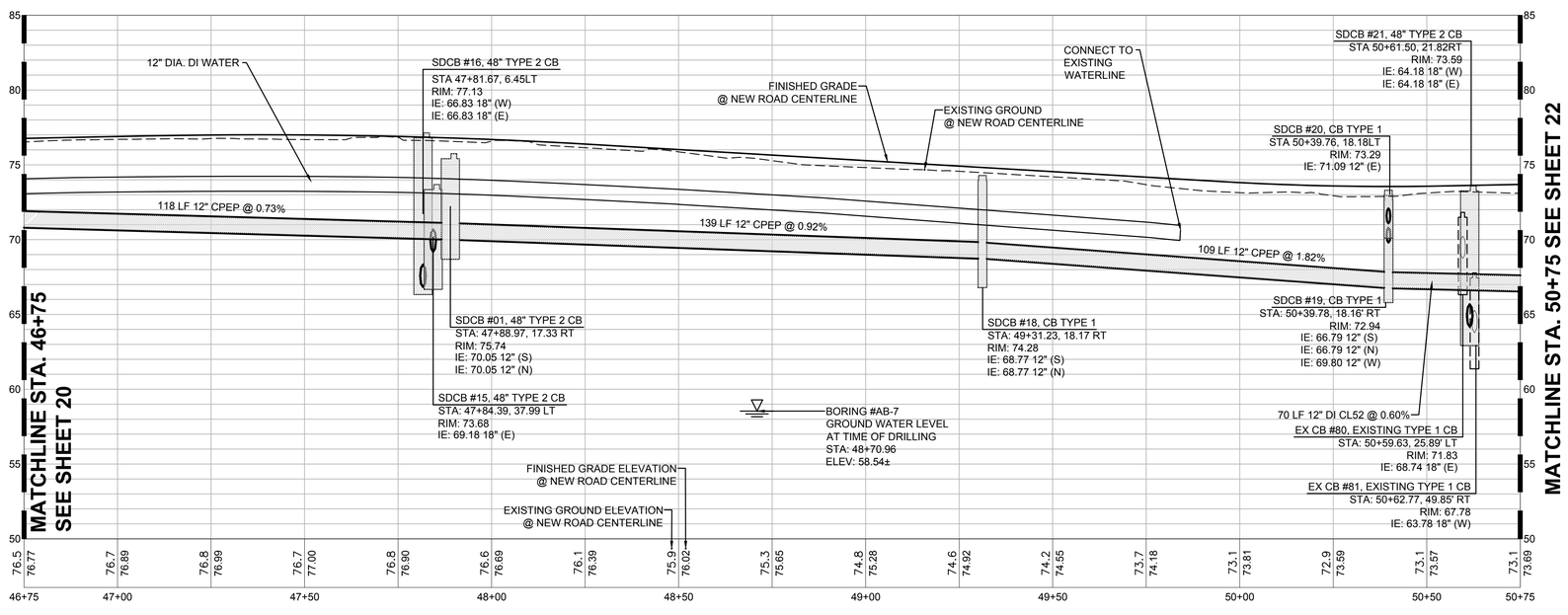
PROJECT/APPLICANT
CITY OF PACIFIC
100 3rd AVENUE SE
PACIFIC, WASHINGTON 98047

SHEET NO. SD-20



STA. 46+75 TO STA. 50+75
DRAINAGE PLAN

SCALE: 1" = 20'



STA. 46+75 TO STA. 50+75
DRAINAGE PROFILE

VERTICAL SCALE: 1" = 5'

GRAPHIC SCALE

0 10 20 40

1" = 20 FEET

KEYNOTES

1. CONNECTION TO EXISTING DRAINAGE STRUCTURE
2. CATCH BASIN TYPE 1 PER WSDOT STD. PLAN B-50.20-02.
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4. RECTANGULAR VANED GRATE PER WSDOT STD. PLAN B-30.30-03.
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8. UTILITY CROSSING. MINIMUM 18" CLEAR BETWEEN WITHOUT CONCRETE ENCASEMENT.

LEGEND

- CATCH BASIN TYPE 1
- CATCH BASIN TYPE 2
- RIP-RAP OUTFALL (1/32)
- RETAINING WALL
- D — STORM DRAINAGE PIPING
- W — WATER LINE PIPING
- FIRE HYDRANT
- WATER METER
- VALVE
- SOIL BORING
- GROUND WATER ELEVATION

GENERAL NOTES

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WILLIAM J. FIERST
STATE OF WASHINGTON
31803
REGISTERED PROFESSIONAL ENGINEER
02/19/2019

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DRAINAGE & UTILITY PLAN & PROFILE

PROJECT/APPLICANT
CITY OF PACIFIC
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PACIFIC, WASHINGTON 98047

SHEET NO. SD-21

21/48

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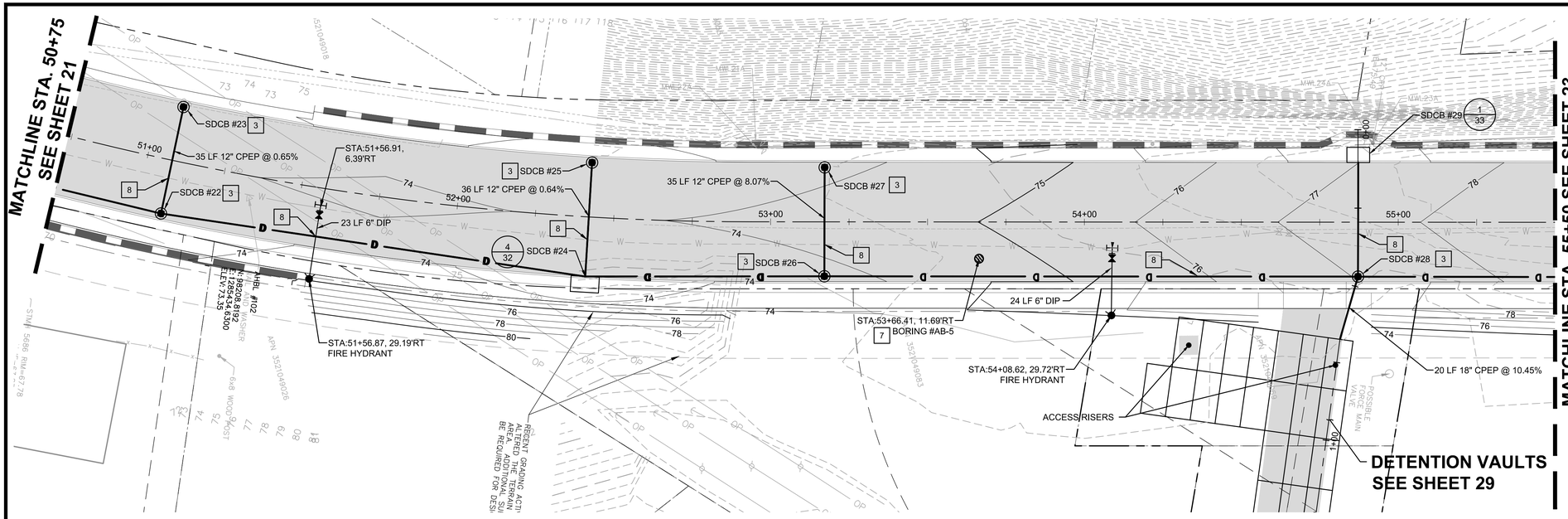

STA. 50+75 TO STA. 55+50
DRAINAGE PLAN

SCALE: 1" = 20'

KEYNOTES

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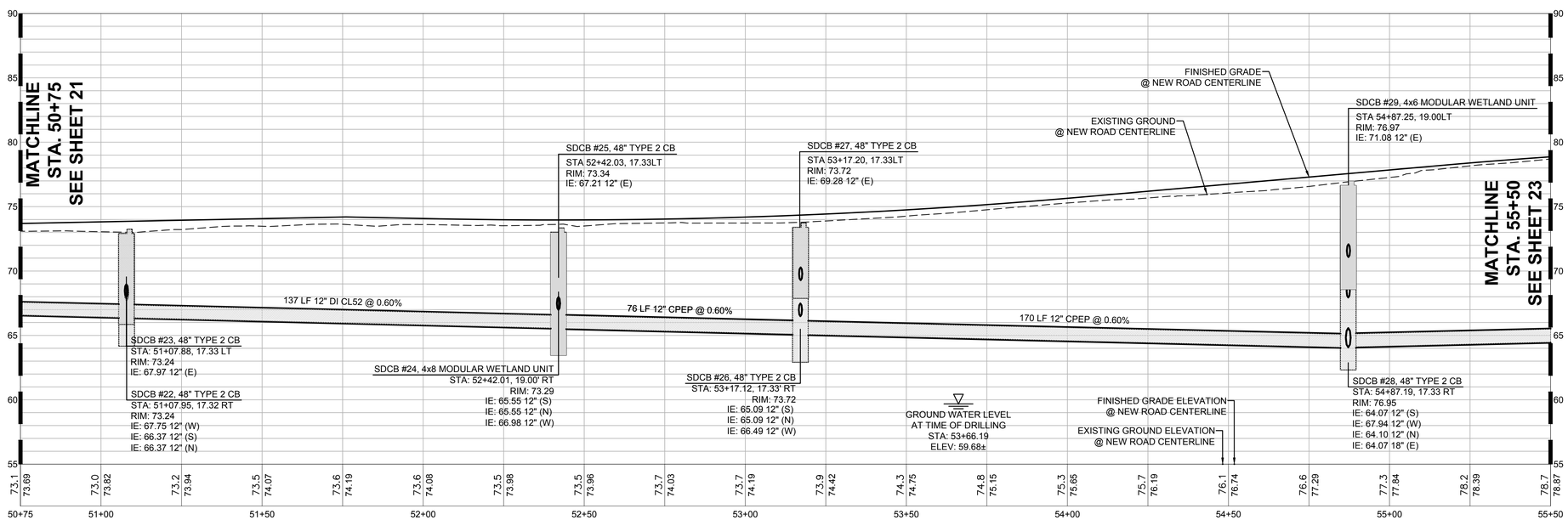

STA. 50+75 TO STA. 55+50
DRAINAGE PROFILE

VERTICAL SCALE: 1" = 5'

GENERAL NOTES

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WILLIAM J. FIERST
STATE OF WASHINGTON
41803
REGISTERED PROFESSIONAL ENGINEER
02/19/2019

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CITY OF PACIFIC
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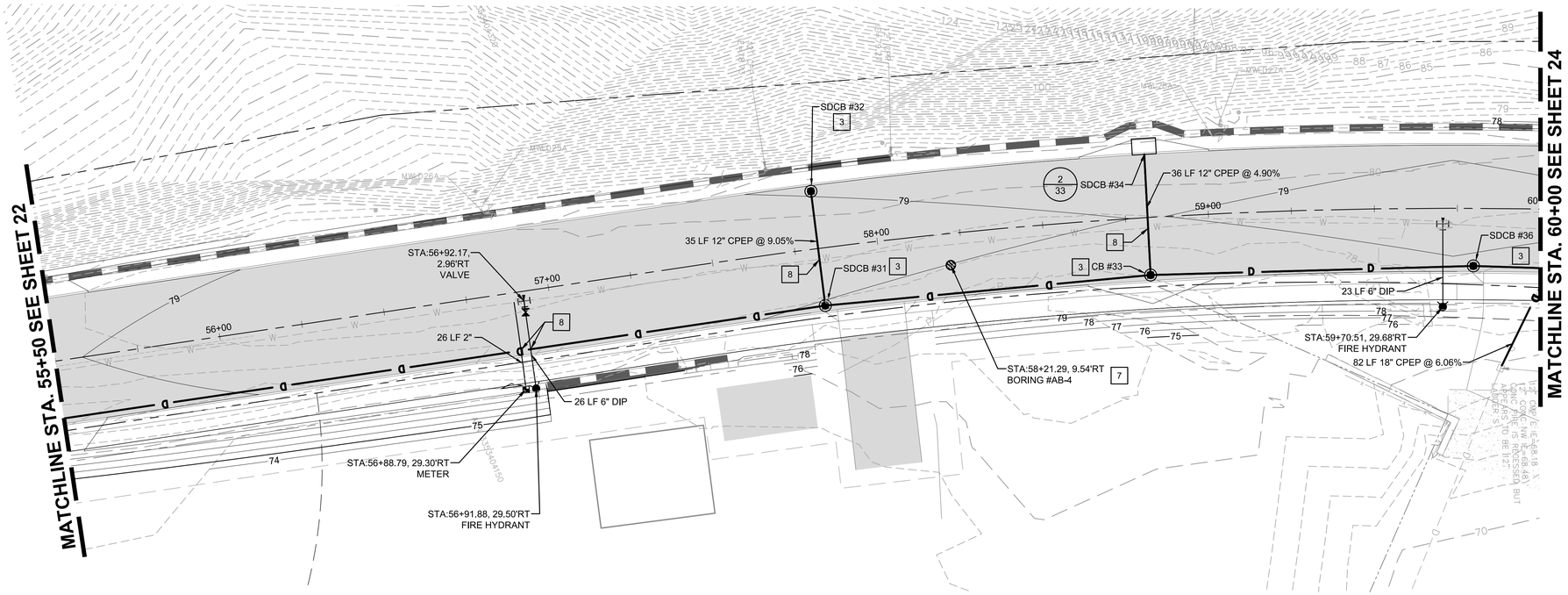
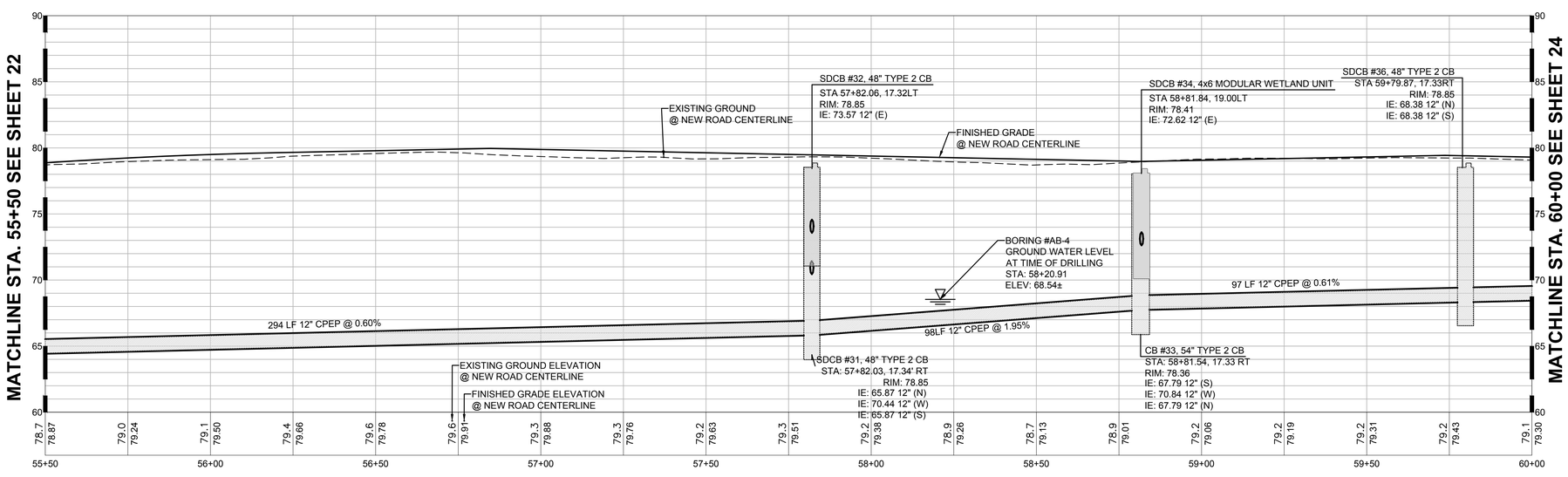
SHEET NO. SD-22



STA. 55+50 TO STA. 60+00
DRAINAGE PLAN

SCALE: 1" = 20'



STA. 55+50 TO STA. 60+00
DRAINAGE PROFILE

VERTICAL SCALE: 1" = 5'

GRAPHIC SCALE

0 10 20 40

1" = 20 FEET

N

KEYNOTES

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WILLIAM J. FIERST
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REGISTERED
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02/19/2019

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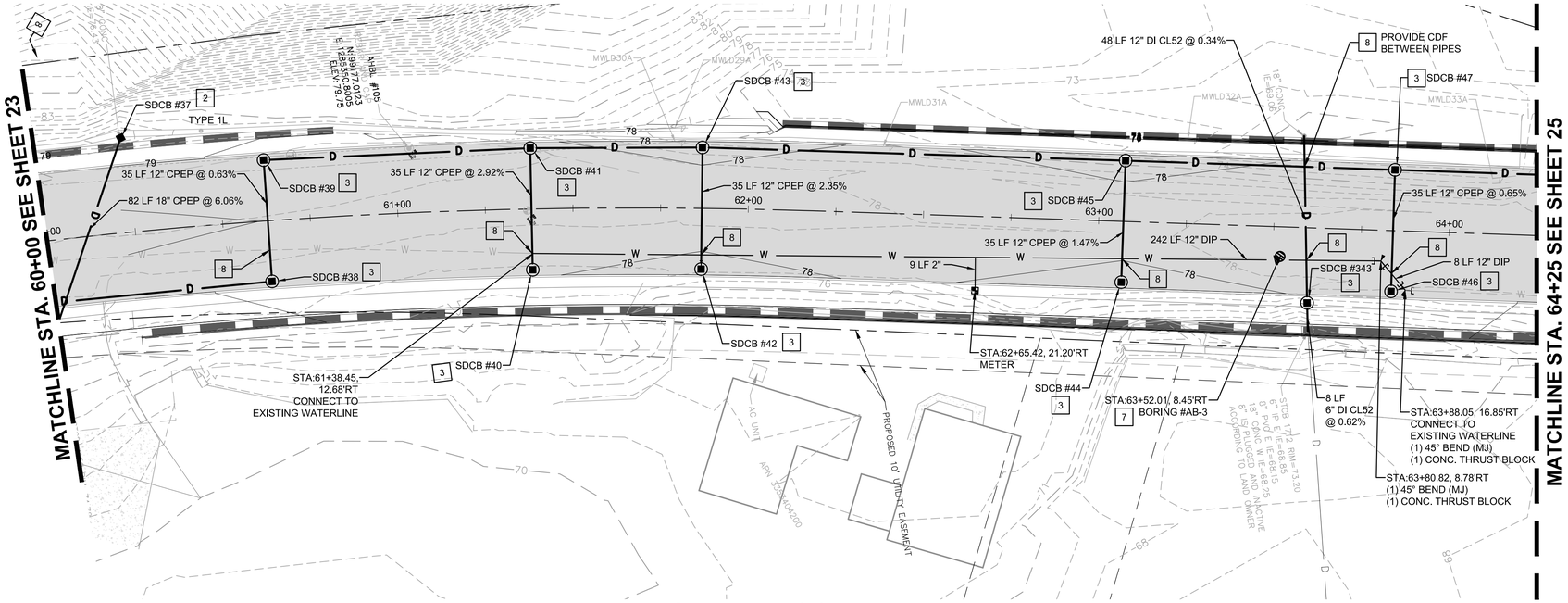
DRAINAGE & UTILITY PLAN & PROFILE

PROJECT/APPLICANT
CITY OF PACIFIC
100 3rd AVENUE SE
PACIFIC, WASHINGTON 98047

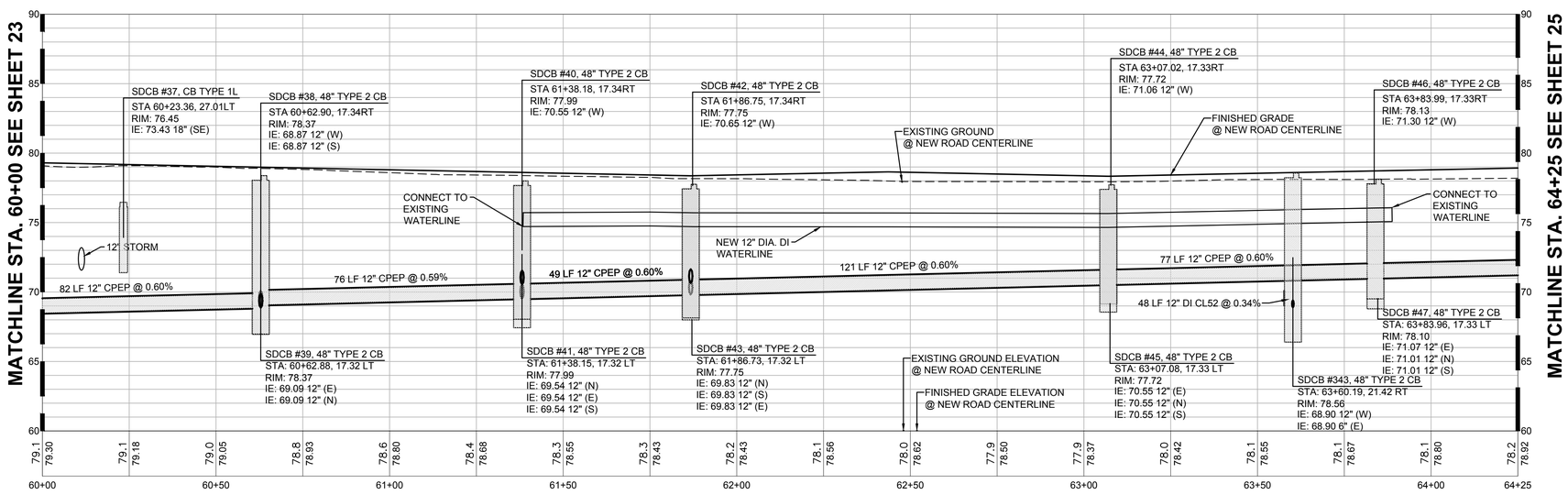
SHEET NO. SD-23

23 / 48



STA. 60+00 TO STA. 64+25
DRAINAGE PLAN

SCALE: 1" = 20'



STA. 60+00 TO STA. 64+25
DRAINAGE PROFILE

VERTICAL SCALE: 1" = 5'

GRAPHIC SCALE
0 10 20 40
1" = 20 FEET

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WILLIAM J. FIERST
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PROFESSIONAL ENGINEER
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CITY OF PACIFIC
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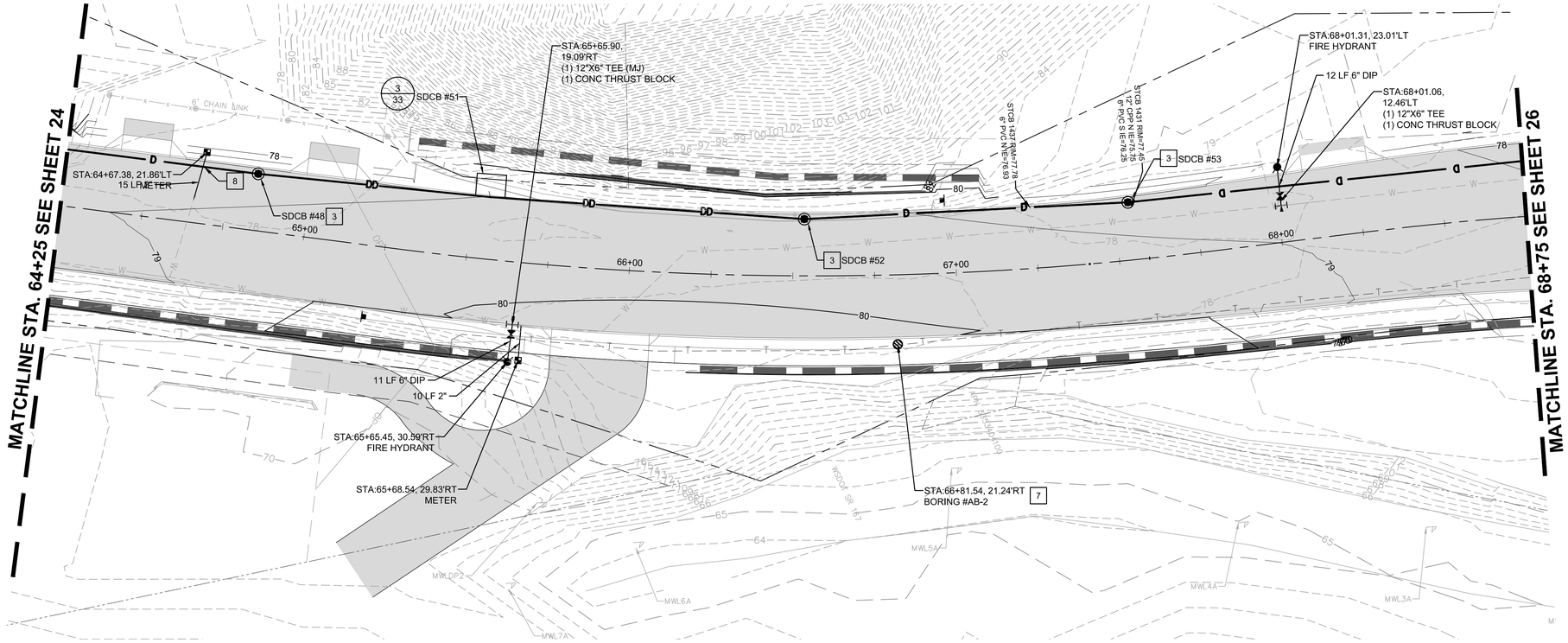
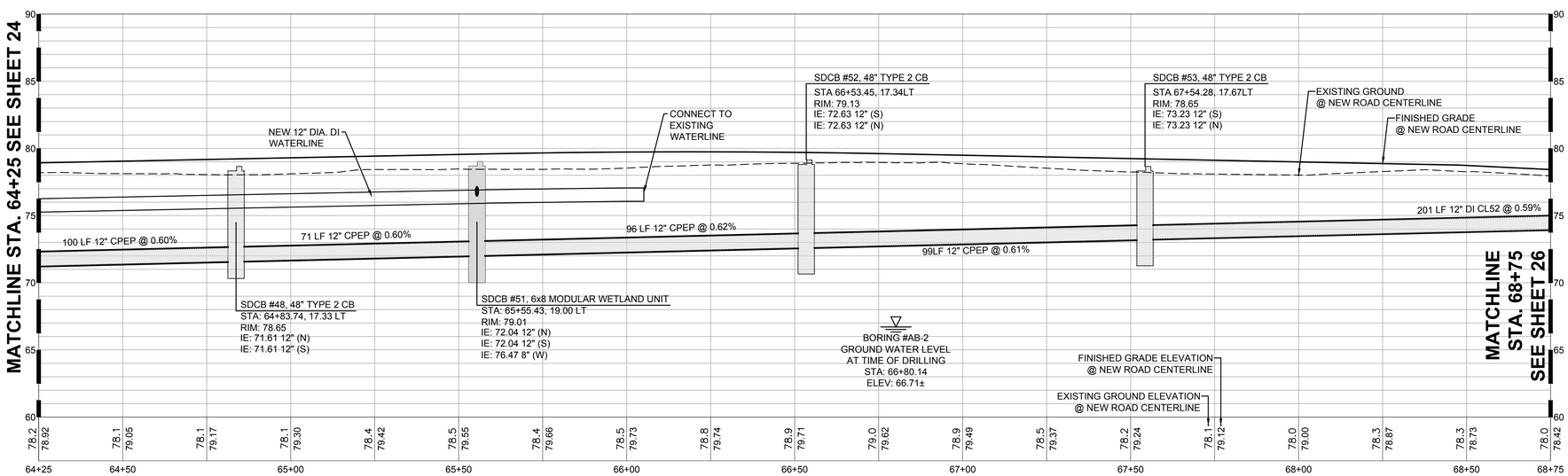


STA. 64+25 TO STA. 68+75
DRAINAGE PLAN

SCALE: 1" = 20'



STA. 64+25 TO STA. 68+75
DRAINAGE PROFILE

VERTICAL SCALE: 1" = 5'

GRAPHIC SCALE
0 10 20 40
1" = 20 FEET

KEYNOTES

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WILLIAM J. FIERST
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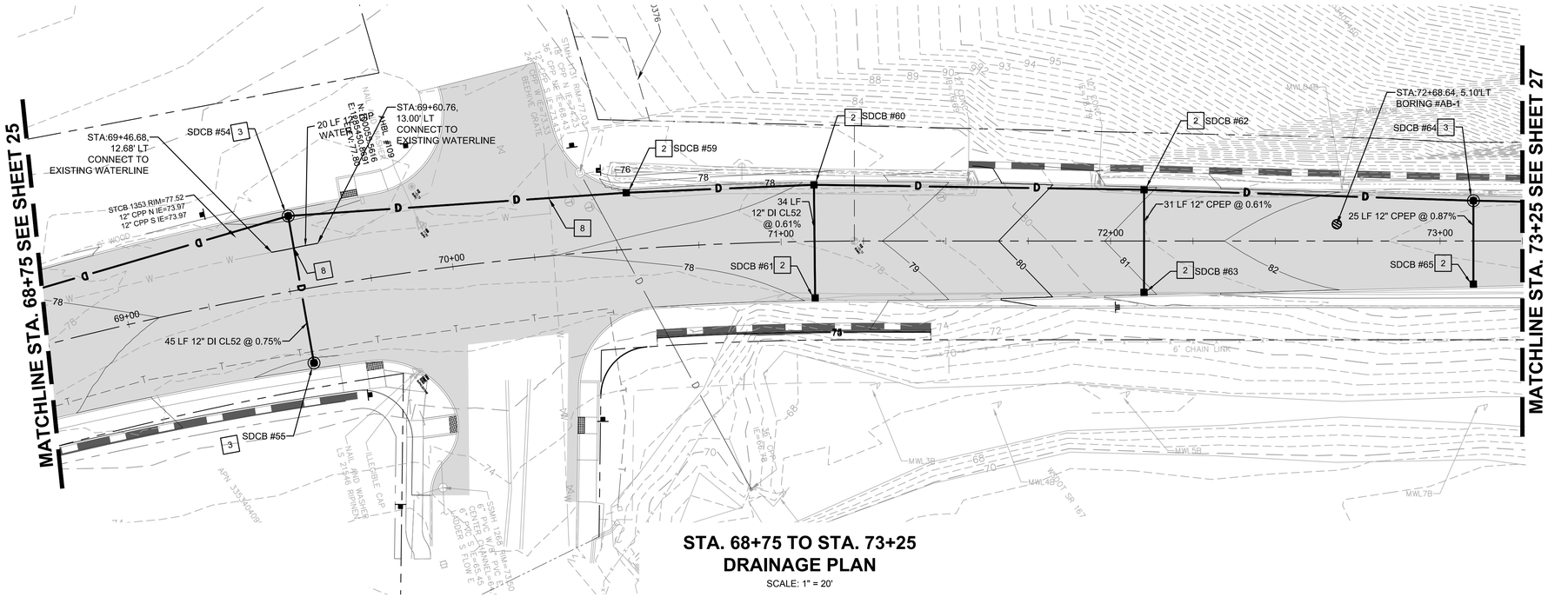
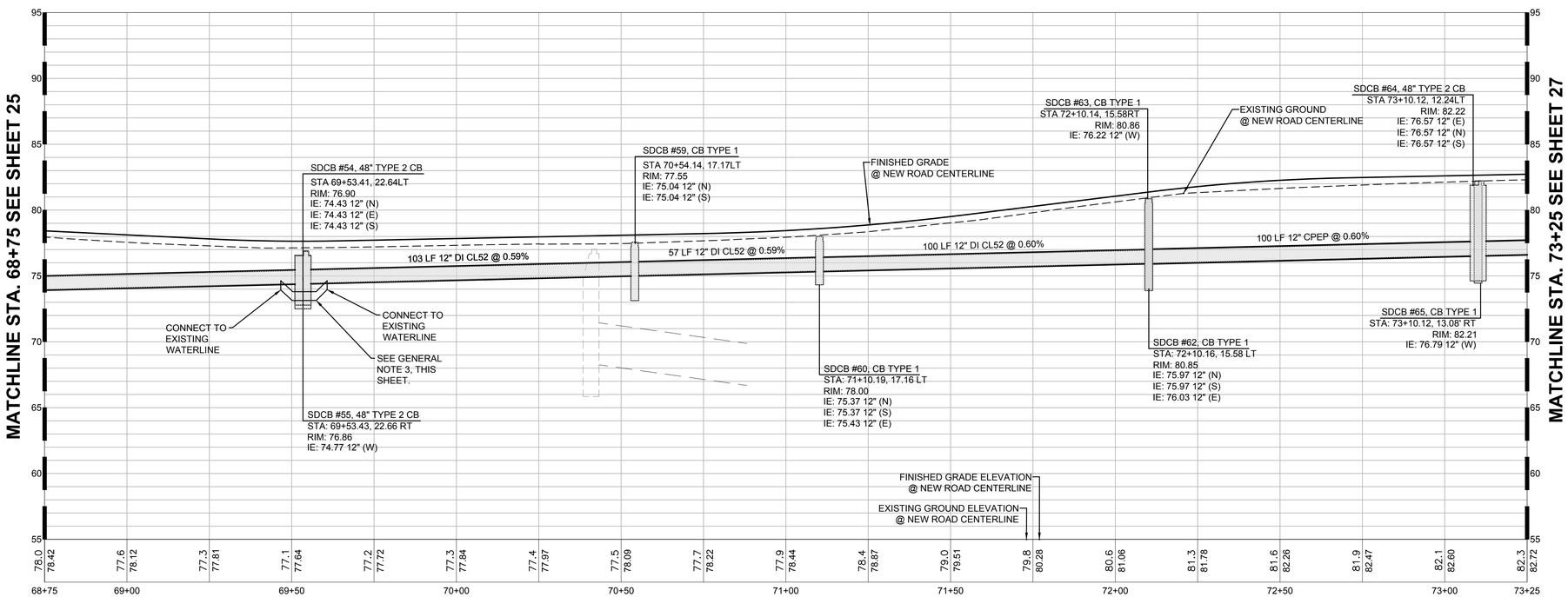


STA. 68+75 TO STA. 73+25
DRAINAGE PLAN

SCALE: 1" = 20'



STA. 68+75 TO STA. 73+25
DRAINAGE PROFILE

VERTICAL SCALE: 1" = 5'

GRAPHIC SCALE

0 10 20 40

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WILLIAM J. FIERST — STATE OF WASHINGTON — 41803 — REGISTERED PROFESSIONAL ENGINEER

02/19/2019

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Fax: (253)887-9910

DESIGNED A. TURPIN
DRAWN A. TURPIN
CHECKED A. BRAUN
APPROVED W. FIERST
SCALE AS NOTED
DATE FEBRUARY 2019

WEST VALLEY HIGHWAY ROADWAY IMPROVEMENT PROJECT
DRAINAGE & UTILITY PLAN & PROFILE

PROJECT/APPLICANT
CITY OF PACIFIC
100 3rd AVENUE SE
PACIFIC, WASHINGTON 98047

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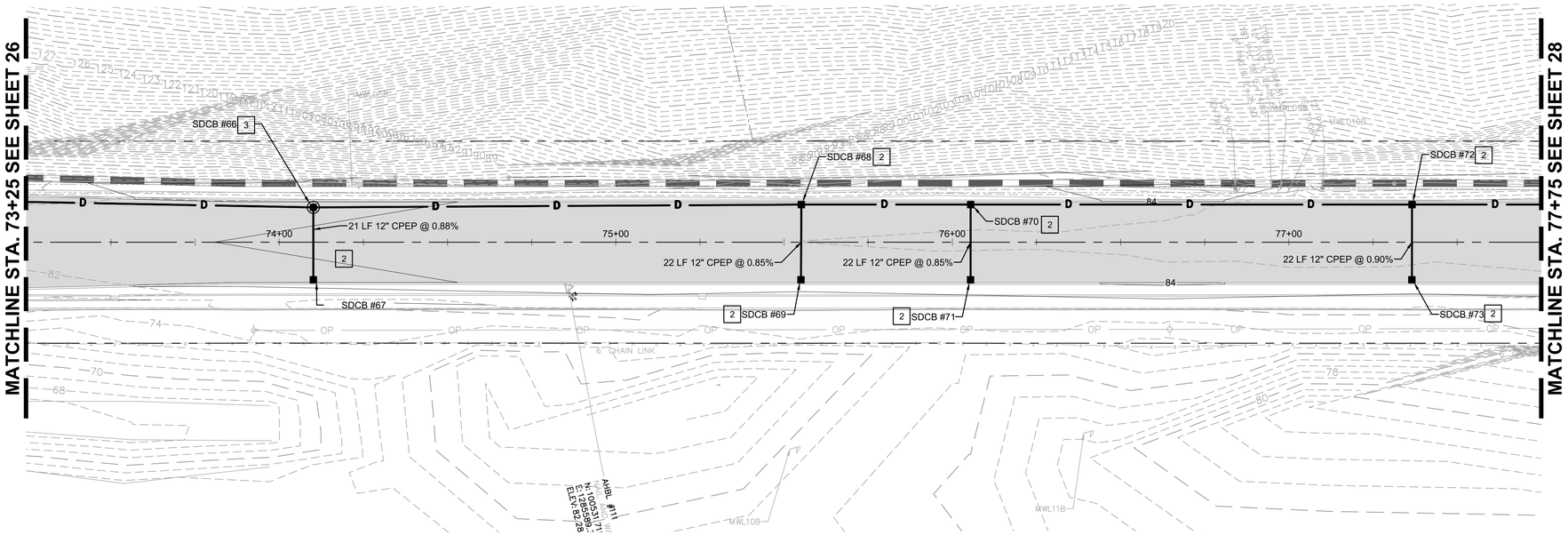
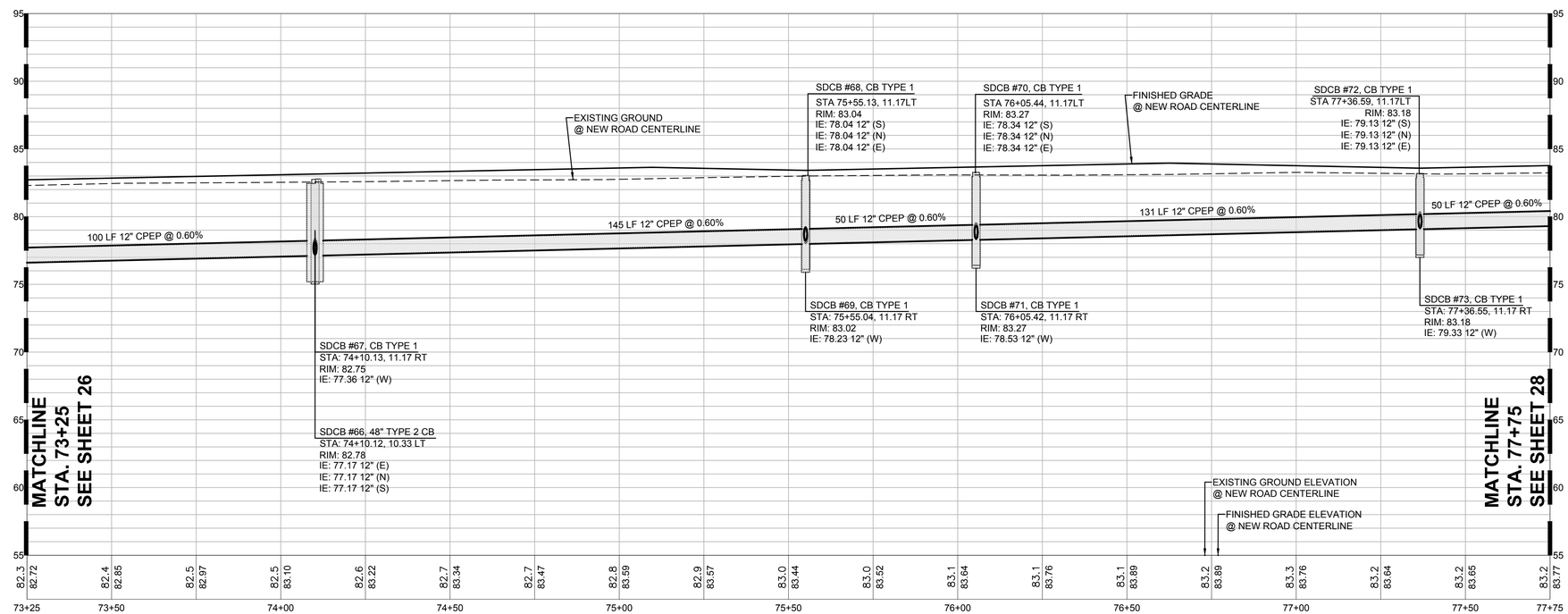


STA. 73+25 TO STA. 77+75
DRAINAGE PLAN

SCALE: 1" = 20'



73+25 TO STA. 77+75
DRAINAGE PROFILE

VERTICAL SCALE: 1" = 5'

GRAPHIC SCALE

0 10 20 40

1" = 20 FEET

KEYNOTES

1. CONNECTION TO EXISTING DRAINAGE STRUCTURE
2. CATCH BASIN TYPE 1 PER WSDOT STD. PLAN B-50.20-02.
3. CATCH BASIN TYPE 2, 48 IN. DIAM. PER WSDOT STD. PLAN B-10.20-02.
4. RECTANGULAR VANED GRATE PER WSDOT STD. PLAN B-30.30-03.
5. RECTANTULAR BI-DIRECTIONAL VANED GRATE PER WSDOT STD. PLAN B-30.40-03.
6. COMBINATION INLET PER WSDOT STD. PLAN B-25.20-02.
7. APPROXIMATE SOIL BORING LOCATION. HORIZONTAL AND VERTICAL DATA PROVIDED BY GEOTECH REPORT BY AMEC ENVIROMENT AND INFRASTRUCTURE, INC.
8. UTILITY CROSSING. MINIMUM 18" CLEAR BETWEEN WITHOUT CONCRETE ENCASEMENT.

LEGEND

- CATCH BASIN TYPE 1
- CATCH BASIN TYPE 2
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- RETAINING WALL
- D — STORM DRAINAGE PIPING
- W — WATER LINE PIPING
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- WATER METER
- VALVE
- SOIL BORING
- GROUND WATER ELEVATION

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3. ENCASE WATERLINE AS ABOVE WHERE THE WATERLINE PASSES BELOW OTHER UTILITIES, REGARDLESS OF VERTICAL CLEARANCE.
4. CONTRACTOR SHALL CONNECT ALL WALL DRAINAGE PIPING TO NEAREST CATCH BASIN.
5. ALL GRATES IN CURB AND GUTTER SHALL BE COMBINATION INLET PER WSDOT B-25.20-02.

WILLIAM J. FIERST
STATE OF WASHINGTON
41803
REGISTERED
PROFESSIONAL ENGINEER
02/19/2019

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Pacific, WA 98047
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Fax: (253)887-9910

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CHECKED A. BRAUN
APPROVED W. FIERST
SCALE AS NOTED
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DRAINAGE & UTILITY PLAN & PROFILE

PROJECT/APPLICANT
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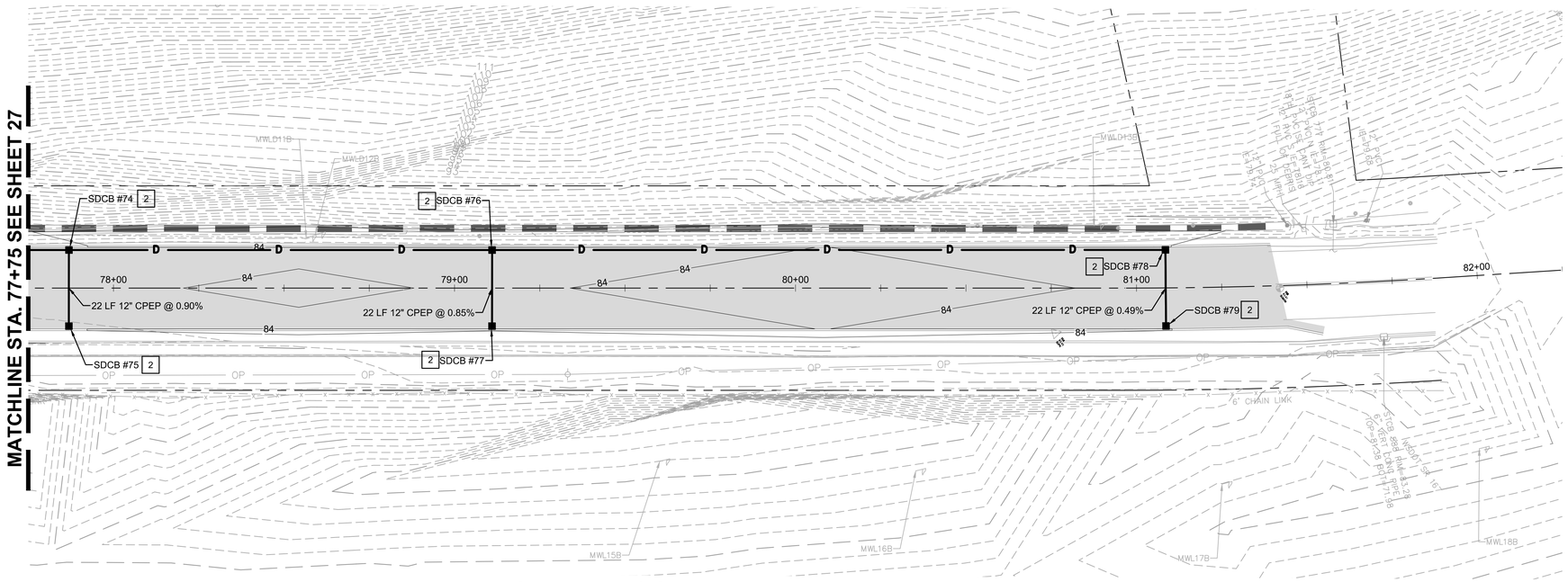
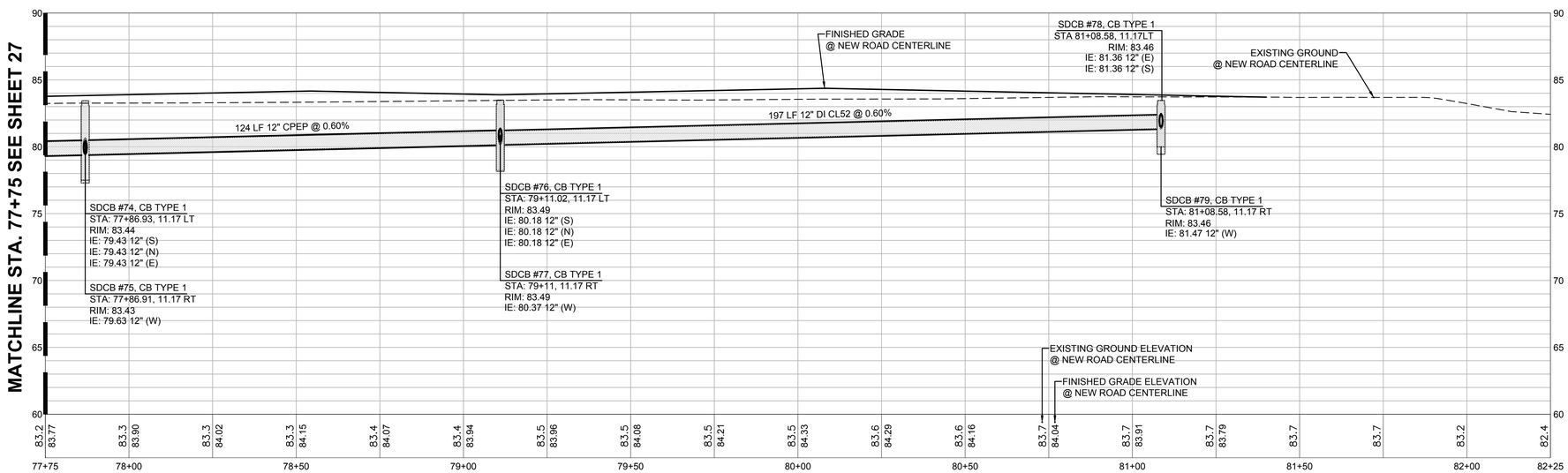


STA. 77+75 TO STA.82+25
DRAINAGE PLAN

SCALE: 1" = 20'



STA. 77+75 TO STA. 82+25
DRAINAGE PROFILE

VERTICAL SCALE: 1" = 5'

GRAPHIC SCALE

0 10 20 40

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KEYNOTES

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WILLIAM J. FIERST
STATE OF WASHINGTON
41803
REGISTERED
PROFESSIONAL ENGINEER
02/19/2019

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PACIFIC, WASHINGTON 98047

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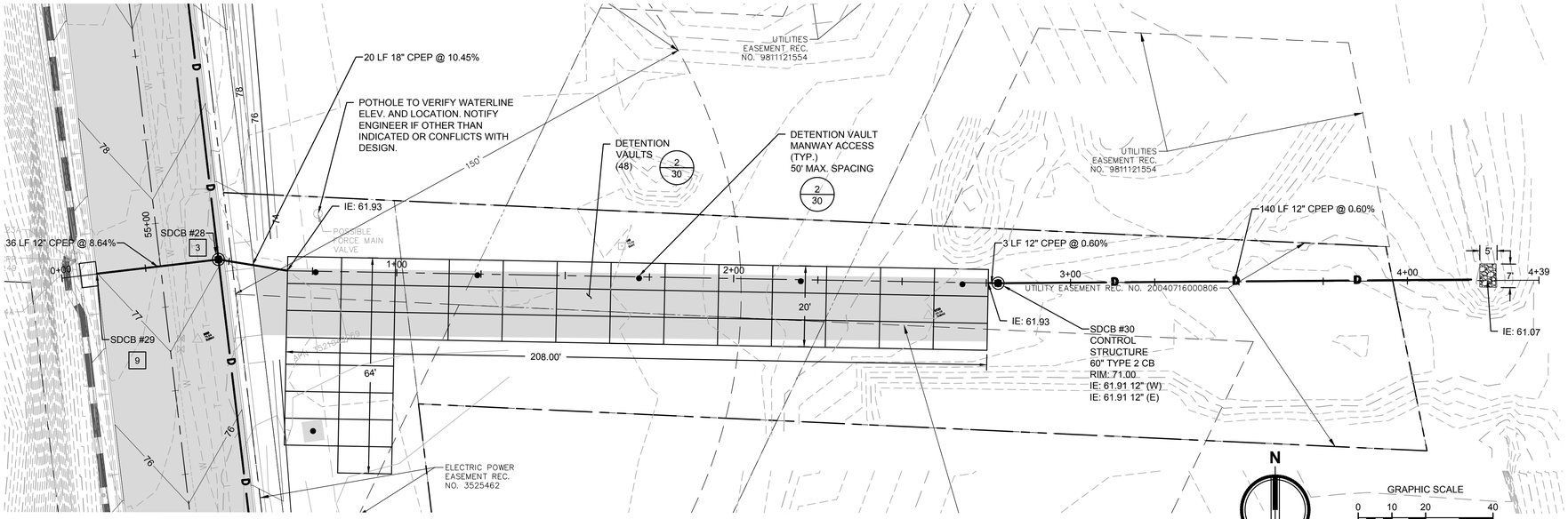
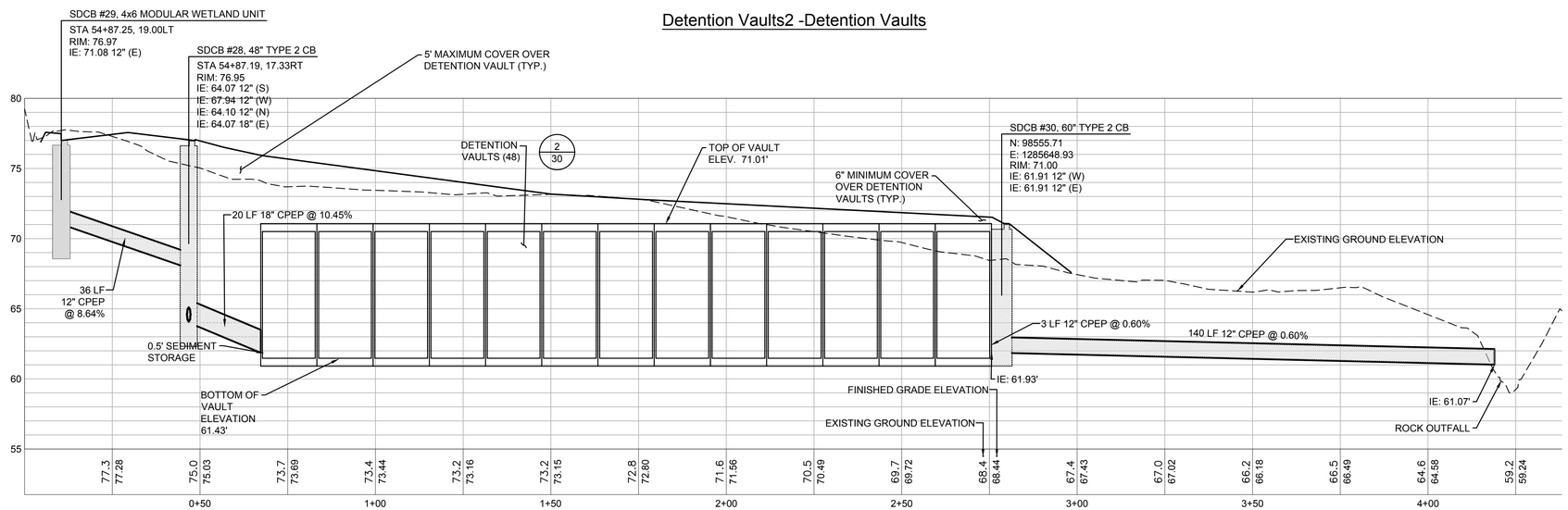


DETENTION VAULTS PLAN

SCALE: 1" = 20'



DETENTION VAULTS PROFILE

VERTICAL SCALE: 1" = 5'

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WEST VALLEY HIGHWAY ROADWAY IMPROVEMENT PROJECT
DETENTION VAULT PLAN

PROJECT/APPLICANT
CITY OF PACIFIC
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PACIFIC, WASHINGTON 98047

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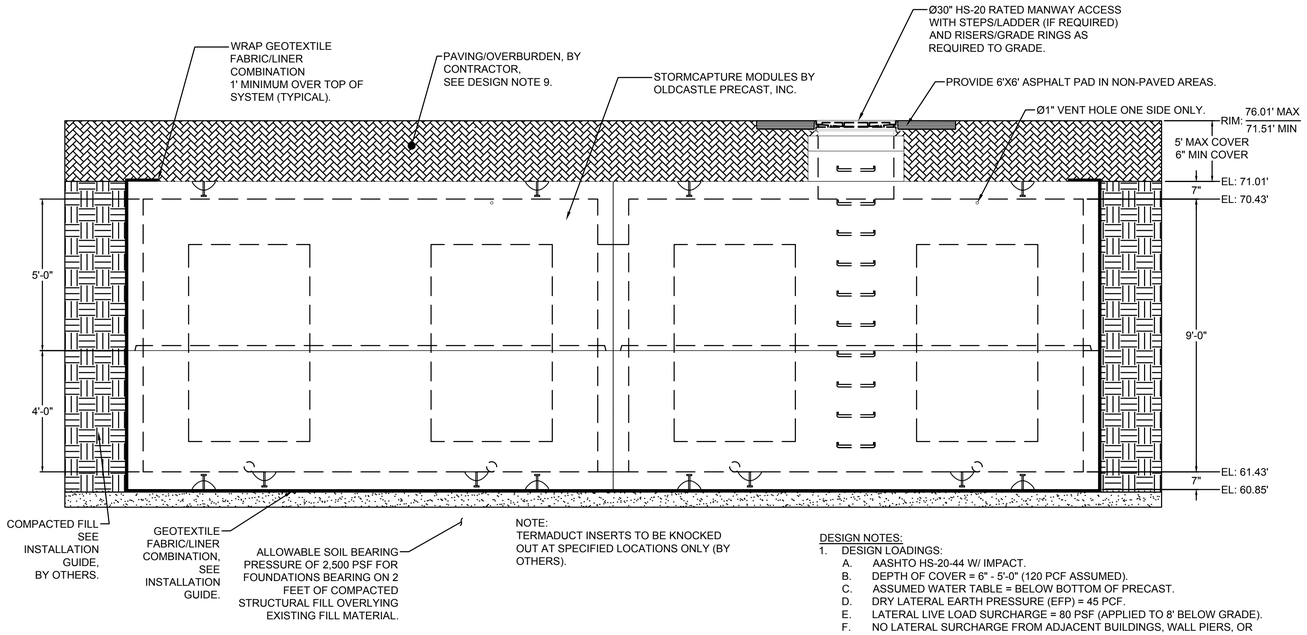


NOTE:
TERMADUCT INSERTS TO BE KNOCKED OUT AT SPECIFIED LOCATIONS ONLY (BY OTHERS).

NOTES TO REVIEWING ENGINEER:

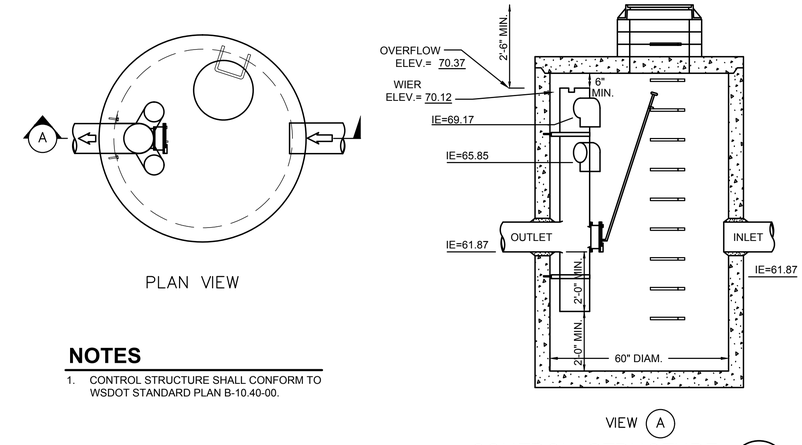
1. THIS SYSTEM IS DESIGNED TO THE PARAMETERS NOTED. PLEASE VERIFY THAT THESE PARAMETERS MEET PROJECT REQUIREMENTS (I.E. LIVE LOAD AND FILL RANGE). IF DESIGN PARAMETERS ARE INCORRECT NOTIFY OLDCASTLE IMMEDIATELY FOR REDESIGN AND RE-PRICING.
2. REVIEWING ENGINEER TO CONFIRM ALL PIPE PENETRATION LOCATIONS, SIZES, AND INVERTS.
3. REVIEWING ENGINEER TO CONFIRM ALL MANWAY ACCESS LOCATIONS AND RIM ELEVATIONS.
4. UNLESS OTHERWISE NOTED, ALL PIPE SUPPLIED AND INSTALLED BY OTHERS.
5. THIS SYSTEM IS DESIGNED FOR A GROUNDWATER TABLE BELOW SYSTEM INVERT. REVIEWING ENGINEER TO VERIFY THAT THE DESIGN GROUNDWATER TABLE IS BELOW INVERT OF PRECAST. IF DESIGN PARAMETERS ARE INCORRECT NOTIFY OLDCASTLE IMMEDIATELY FOR REDESIGN AND REVISED PRICING.
6. THIS SYSTEM IS DESIGNED WITH A CONTAINMENT MEMBRANE LINER. IF A LINER IS NOT NEEDED PLEASE CONTACT OLDCASTLE TO PROVIDE THIS OPTION IN THE FINAL DESIGN.

DESIGN NOTES:

1. DESIGN LOADINGS:
   - A. AASHTO HS-20-44 W/ IMPACT.
   - B. DEPTH OF COVER = 6" - 5'-0" (120 PCF ASSUMED).
   - C. ASSUMED WATER TABLE = BELOW BOTTOM OF PRECAST.
   - D. DRY LATERAL EARTH PRESSURE (EFP) = 45 PCF.
   - E. LATERAL LIVE LOAD SURCHARGE = 80 PSF (APPLIED TO 8' BELOW GRADE).
   - F. NO LATERAL SURCHARGE FROM ADJACENT BUILDINGS, WALL PIERS, OR FOUNDATIONS.
2. CONCRETE 28 DAY COMPRESSIVE STRENGTH SHALL BE 6,000 PSI.
3. STEEL REINFORCEMENT: REBAR, ASTM A-615 OR A-706, GRADE 60.
4. CEMENT: ASTM C-150 SPECIFICATION.
5. STORMCAPTURE MODULE TYPE = DETENTION.
6. REQUIRED BASE LAYER DEPTH = 2" SAND BEDDING LAYER.
7. REQUIRED NATIVE ALLOWABLE SOIL BEARING PRESSURE = 2,500 PSF.
8. REFERENCE STANDARDS:
   - A. ASTM C 890
   - B. ASTM C 891
   - C. ASTM C 913
9. CONSTRUCTION EQUIPMENT EXCEEDING DESIGN LOADING SHALL NOT BE ALLOWED ON STRUCTURE. ANY DESIGN CONSTRAINT DIFFERENT FROM ABOVE REQUIRES CUSTOM STRUCTURAL DESIGN AND MAY REQUIRE THICKER SUBGRADE AND REVISED PRICING.

VAULT ELEVATION 2

1" = 2.5'



PLAN VIEW

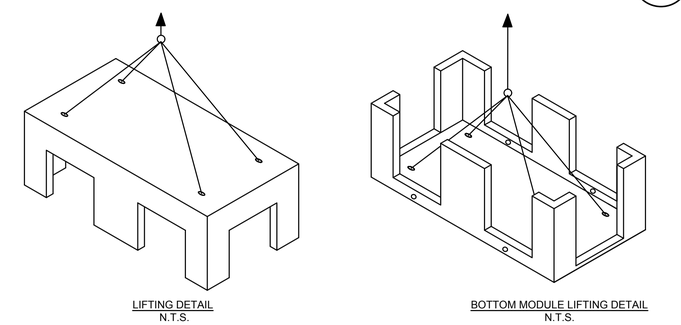
VIEW A

NOTES

1. CONTROL STRUCTURE SHALL CONFORM TO WSDOT STANDARD PLAN B-10.40-00.

CONTROL STRUCTURE 1

NOT TO SCALE

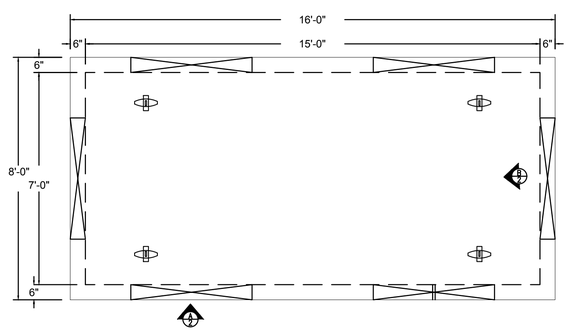


LIFTING DETAIL
N.T.S.

BOTTOM MODULE LIFTING DETAIL
N.T.S.

VAULT LIFTING DETAILS 3

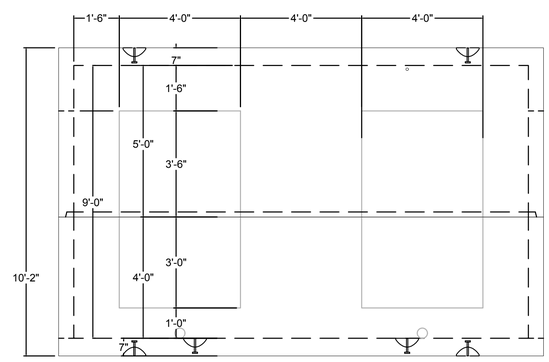
NOT TO SCALE



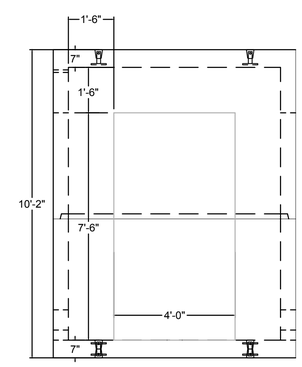
PLAN VIEW

VAULT PLAN VIEW 4

1" = 2.5'



VIEW A



VIEW B

VAULT SECTIONS 5

1" = 2.5'

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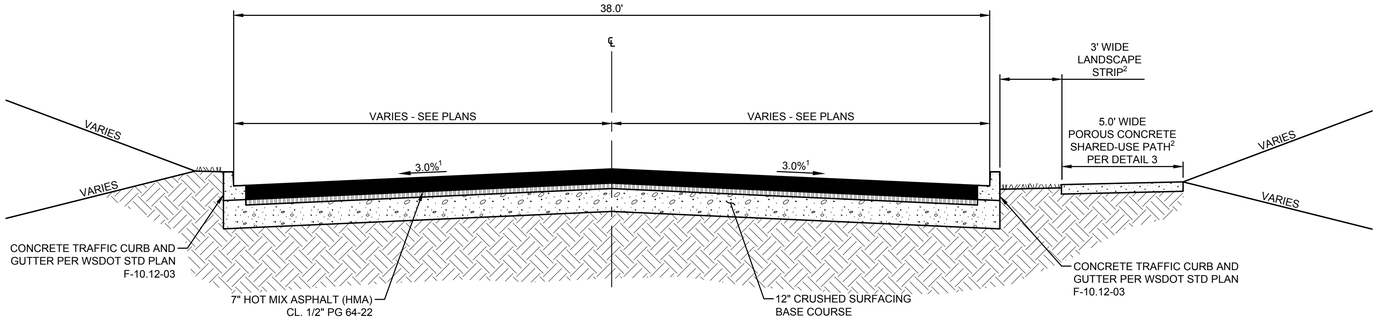
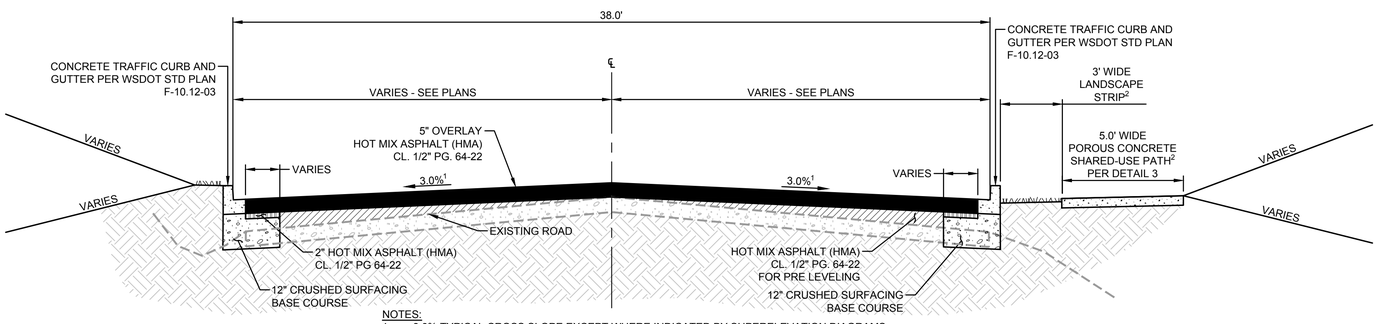
SHEET NO. SD-30



NOTES:
1. 3.0% TYPICAL CROSS SLOPE EXCEPT WHERE INDICATED BY SUPERELEVATION DIAGRAMS.
2. LANDSCAPE STRIP AND SHARED USE PATH ONLY WHERE INDICATED ON PLAN.
3. PLANE EXISTING PAVEMENT AS NEEDED FOR 5" OVERLAY.

TYPICAL ROAD SECTION – FULL REPLACEMENT (1)

NOT TO SCALE



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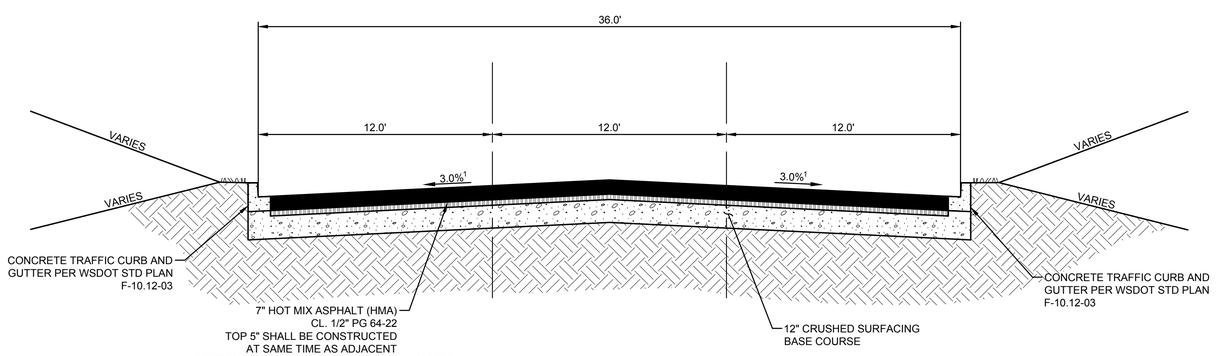
TYPICAL ROAD SECTION – OVERLAY EXISTING (2)

NOT TO SCALE



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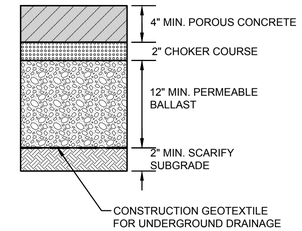
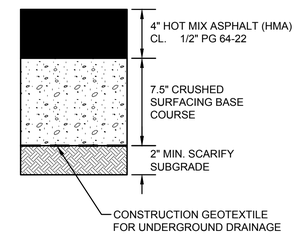
ROAD SECTION – FULL REPLACEMENT TURN LANE NORTH OF 3RD (5)

NOT TO SCALE



POROUS CONCRETE SHARED – USE PATH (3)

NOT TO SCALE



ASPHALT PAVEMENT – IN DRIVEWAYS (4)

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WILLIAM J. FIERST — STATE OF WASHINGTON — 21803 — REGISTERED PROFESSIONAL ENGINEER — 02/19/2019

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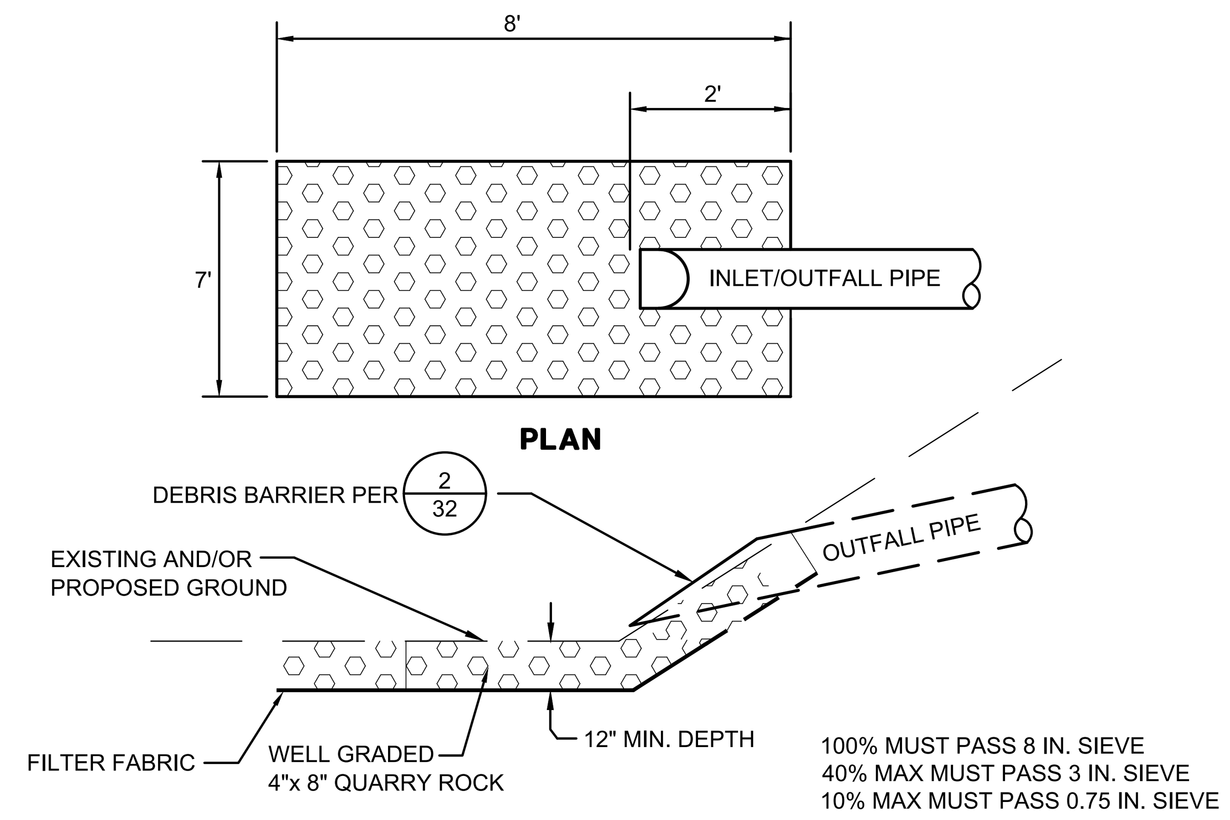
100 3rd AVENUE SE
PACIFIC, WASHINGTON 98047

SHEET NO. ND–31



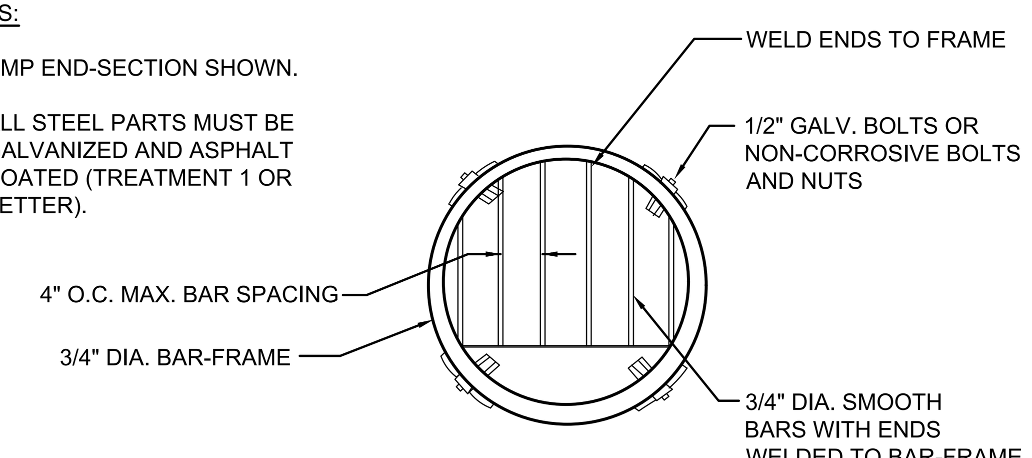
100% MUST PASS 8 IN. SIEVE
40% MAX MUST PASS 3 IN. SIEVE
10% MAX MUST PASS 0.75 IN. SIEVE

ROCK OUTFALL AND RIPRAP PAD PROTECTION (1)

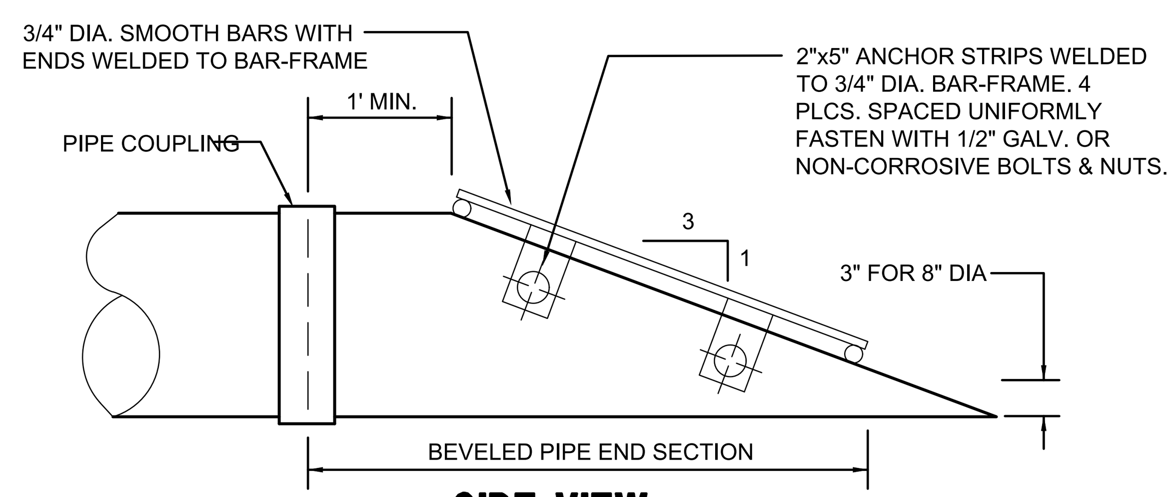
NOT TO SCALE

NOTES:

1. CMP END-SECTION SHOWN.
2. ALL STEEL PARTS MUST BE GALVANIZED AND ASPHALT COATED (TREATMENT 1 OR BETTER).



FRONT VIEW

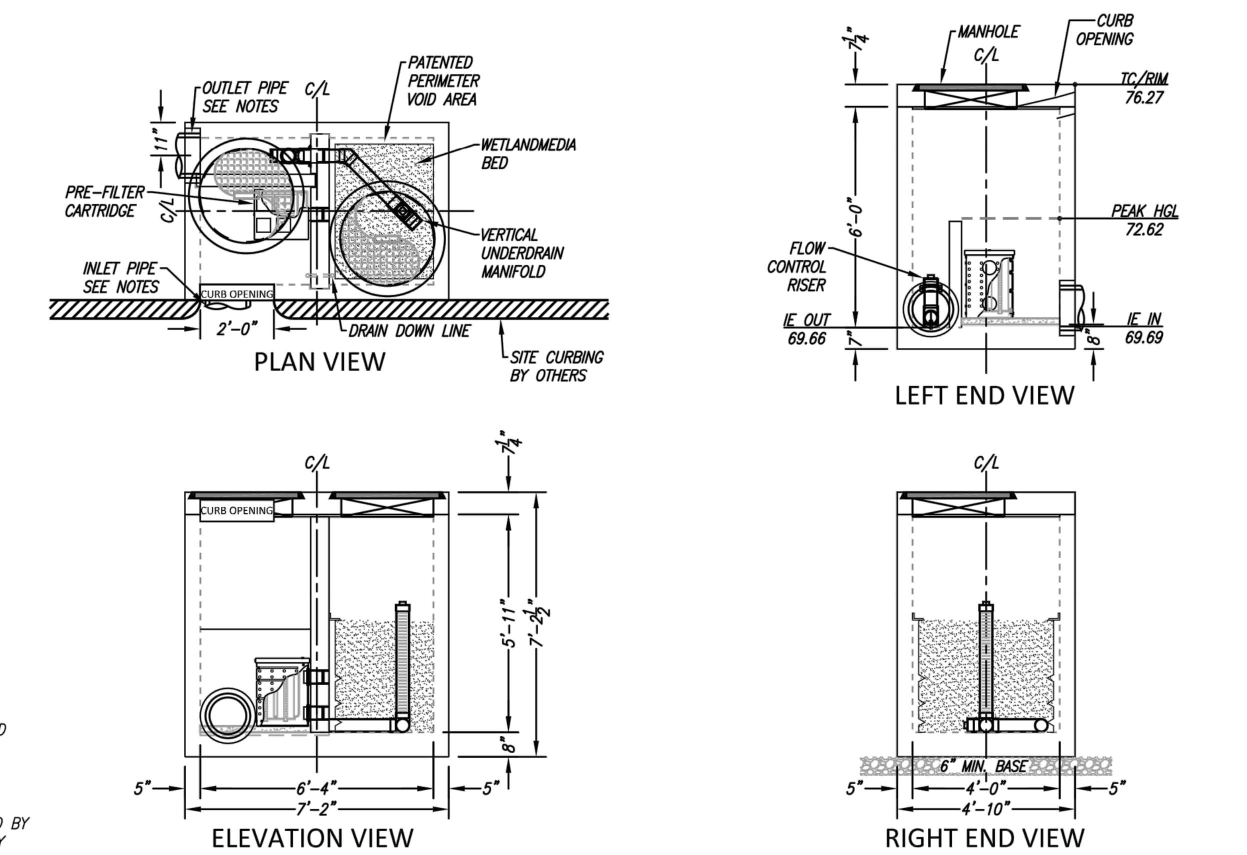


SIDE VIEW

DEBRIS BARRIER (2)

NOT TO SCALE

SITE SPECIFIC DATA			
		3016	
PROJECT NAME		WEST VALLEY HWY	
PROJECT LOCATION		PACIFIC, WA	
STRUCTURE ID		CB #8	
TREATMENT REQUIRED			
VOLUME BASED (CF)		FLOW BASED (CFS)	
		0.0454	
TREATMENT HGL AVAILABLE (FT)			N/A
PEAK BYPASS REQUIRED (CFS)			0.2170
PIPE DATA	I.E.	MATERIAL	DIAMETER
INLET PIPE	69.69	CPEP	12"
	69.66	CPEP	12"
OUTLET PIPE	69.66	CPEP	12"
	PRETREATMENT	BIOFILTRATION	DISCHARGE
RIM ELEVATION	76.22	76.22	76.22
SURFACE LOAD	PEDESTRIAN	PEDESTRIAN	PEDESTRIAN
FRAME & COVER	ø30"	ø30"	N/A
WETLANDMEDIA VOLUME (CY)			1.28
WETLANDMEDIA DELIVERY METHOD			PER CONTRACT
ORIFICE SIZE (DIA. INCHES)			ø1.11"
NOTES: PRELIMINARY, NOT FOR CONSTRUCTION.			



INSTALLATION NOTES

1. CONTRACTOR TO PROVIDE ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS REQUIRED TO OFFLOAD AND INSTALL THE SYSTEM AND APPURTENANCES IN ACCORDANCE WITH THIS DRAWING AND THE MANUFACTURERS SPECIFICATIONS, UNLESS OTHERWISE STATED IN MANUFACTURERS CONTRACT.
2. UNIT MUST BE INSTALLED ON LEVEL BASE. MANUFACTURER RECOMMENDS A MINIMUM 6" LEVEL ROCK BASE UNLESS SPECIFIED BY THE PROJECT ENGINEER. CONTRACTOR IS RESPONSIBLE TO VERIFY PROJECT ENGINEERS RECOMMENDED BASE SPECIFICATIONS.
3. ALL PIPES MUST BE FLUSH WITH INSIDE SURFACE OF CONCRETE. (PIPES CANNOT INTRUDE BEYOND FLUSH). INVERT OF OUTFLOW PIPE MUST BE FLUSH WITH DISCHARGE CHAMBER FLOOR. ALL GAPS AROUND PIPES SHALL BE SEALED WATER TIGHT WITH A NON-SHRINK GROUT PER MANUFACTURERS STANDARD CONNECTION DETAIL AND SHALL MEET OR EXCEED REGIONAL PIPE CONNECTION STANDARDS.
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6. DRIP OR SPRAY IRRIGATION REQUIRED ON ALL UNITS WITH VEGETATION.

GENERAL NOTES

1. MANUFACTURER TO PROVIDE ALL MATERIALS UNLESS OTHERWISE NOTED.
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2/6/19ASPOLAR

INTERNAL BYPASS DISCLOSURE:

THE DESIGN AND CAPACITY OF THE PEAK CONVEYANCE METHOD TO BE REVIEWED AND APPROVED BY THE ENGINEER OF RECORD. HGL(S) AT PEAK FLOW SHALL BE ASSESSED TO ENSURE NO UPSTREAM FLOODING. PEAK HGL AND BYPASS CAPACITY SHOWN ON DRAWING ARE USED FOR GUIDANCE ONLY.

LOW INFLOW PIPE DISCLOSURE:

IT IS RECOMMENDED THAT A SUFFICIENT VARIATION IN ELEVATION BETWEEN THE INLET AND OUTLET BE PROVIDED TO ALLOW FOR ACCUMULATION OF SEDIMENT IN THE PRE-TREATMENT CHAMBER. FAILURE TO DO SO MAY RESULT IN BLOCKAGE AT INFLOW POINT(S) WHICH MAY CAUSE UPSTREAM FLOODING.

TREATMENT FLOW (CFS)	0.055
OPERATING HEAD (FT)	2.8
PRETREATMENT LOADING RATE (GPM/SF)	1.9
WETLAND MEDIA LOADING RATE (GPM/SF)	1.0

THE PRODUCT DESCRIBED MAY BE PROTECTED BY ONE OR MORE OF THE FOLLOWING US PATENTS: 7,425,262; 7,470,362; 7,674,378; 8,303,816; RELATED FOREIGN PATENTS OR OTHER PATENTS PENDING

PROPRIETARY AND CONFIDENTIAL:
THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF MODULAR WETLANDS SYSTEMS. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF MODULAR WETLANDS SYSTEMS IS PROHIBITED.

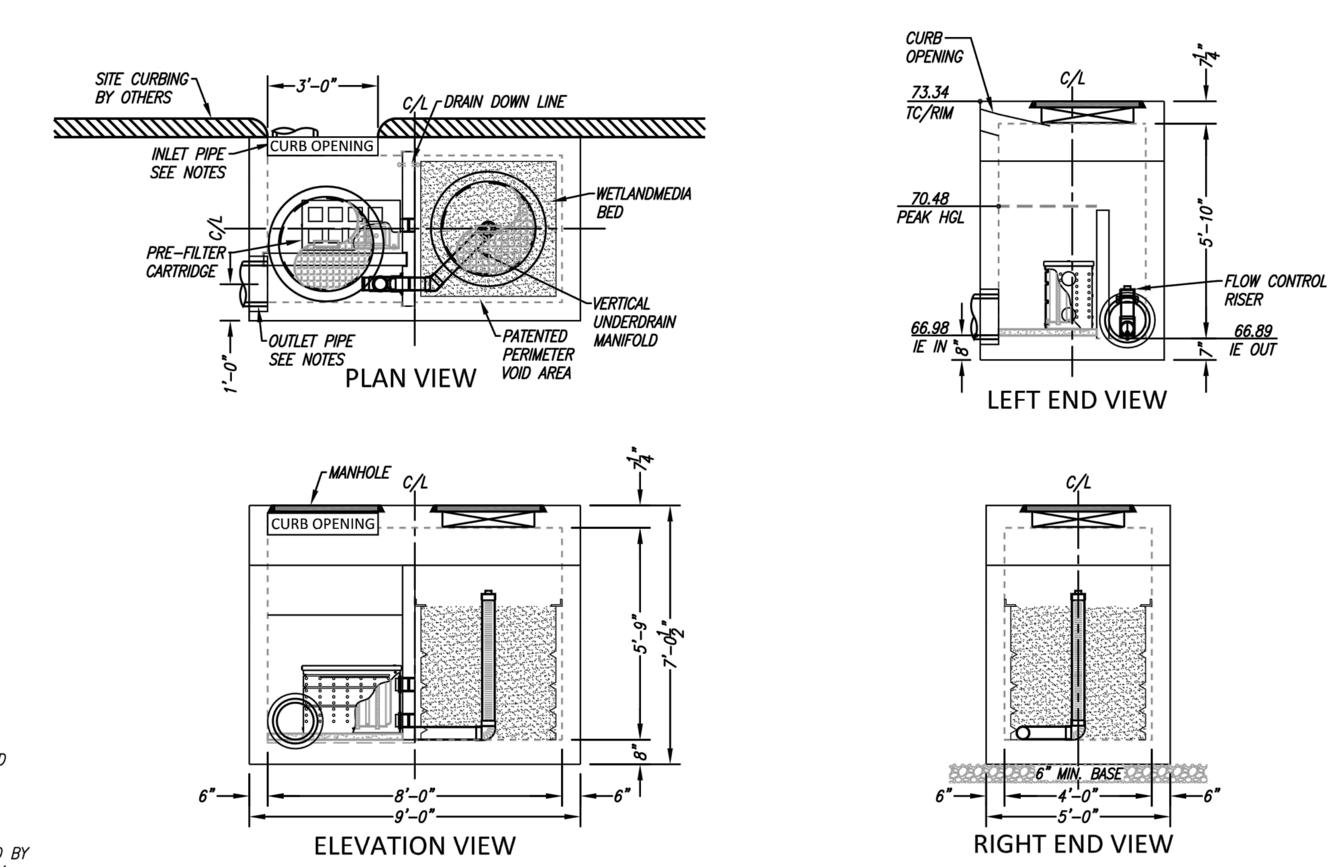
Bio Clean
A Forterra Company

MWS-L-4-6.33-C-UG
STORMWATER BIOFILTRATION SYSTEM
STANDARD DETAIL

CB #8 MODULAR WETLAND UNIT (3)

NOT TO SCALE

SITE SPECIFIC DATA			
PROJECT NUMBER		3016	
PROJECT NAME		WEST VALLEY HWY	
PROJECT LOCATION		PACIFIC, WA	
STRUCTURE ID		CB #24	
TREATMENT REQUIRED			
VOLUME BASED (CF)		FLOW BASED (CFS)	
		0.0909	
TREATMENT HGL AVAILABLE (FT)			N/A
PEAK BYPASS REQUIRED (CFS) – IF APPLICABLE			0.4341
PIPE DATA	I.E.	MATERIAL	DIAMETER
INLET PIPE	66.98	CPEP	12"
	65.55	CPEP	12"
OUTLET PIPE	66.89	CPEP	12"
	PRETREATMENT	BIOFILTRATION	DISCHARGE
RIM ELEVATION	73.29	73.29	73.29
SURFACE LOAD	PEDESTRIAN	PEDESTRIAN	PEDESTRIAN
FRAME & COVER	ø30"	ø30"	N/A
WETLANDMEDIA VOLUME (CY)			2.16
WETLANDMEDIA DELIVERY METHOD			PER CONTRACT
ORIFICE SIZE (DIA. INCHES)			ø1.53"
NOTES: PRELIMINARY, NOT FOR CONSTRUCTION.			



INSTALLATION NOTES

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6. DRIP OR SPRAY IRRIGATION REQUIRED ON ALL UNITS WITH VEGETATION.

GENERAL NOTES

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2/6/19ASPOLAR

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TREATMENT FLOW (CFS)	0.115
OPERATING HEAD (FT)	3.4
PRETREATMENT LOADING RATE (GPM/SF)	2.0
WETLAND MEDIA LOADING RATE (GPM/SF)	1.0

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PROPRIETARY AND CONFIDENTIAL:
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Bio Clean
A Forterra Company

MWS-L-4-8-C-UG
STORMWATER BIOFILTRATION SYSTEM
STANDARD DETAIL

CB #24 MODULAR WETLAND UNIT (4)

NOT TO SCALE

100% DESIGN SUBMITTAL

Know what's **below.**
Call before you dig.

WILLIAM J. FIERST
STATE OF WASHINGTON
41803
REGISTERED
PROFESSIONAL ENGINEER
02/19/2019

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AHBL
TACOMA · SEATTLE · SPOKANE · TRI-CITIES
2215 North 30th Street, Suite 300 Tacoma, WA 98403
253.383.2422 TEL 253.383.2572 FAX www.ahbl.com WEB

IF SHEET MEASURES LESS THAN 22" X 34" IT IS A REDUCED PRINT. REDUCE SCALE ACCORDINGLY.

NO.	REVISIONS	DATE	BY

JOB NO. 2130176.10, 2140392.10
DRAWING NO.

City of Pacific
100 3rd Avenue Southeast
Pacific, WA 98047
Phone: (253)929-1110
Fax: (253)887-9910

DESIGNED A. TURPIN
DRAWN A. TURPIN
CHECKED A. BRAUN
APPROVED W. FIERST
SCALE AS NOTED
DATE FEBRUARY 2019

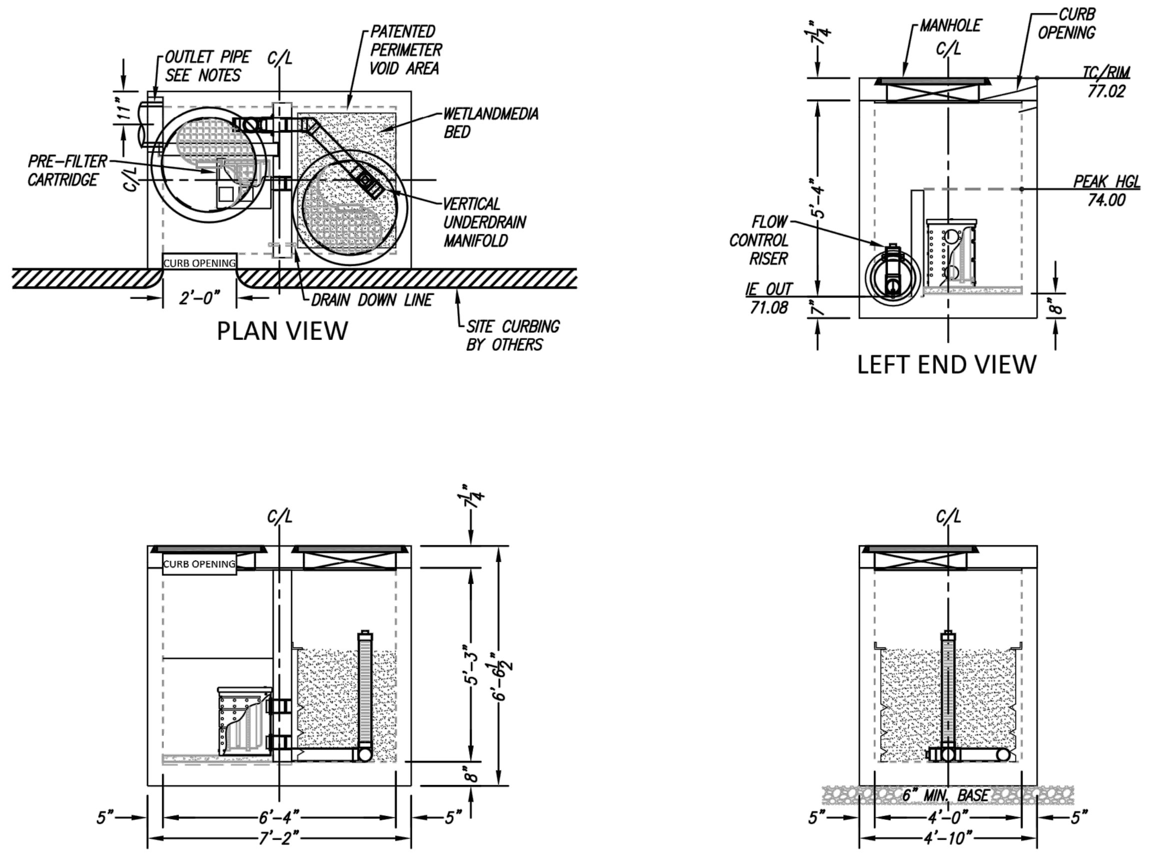
WEST VALLEY HIGHWAY ROADWAY IMPROVEMENT PROJECT
NOTES AND DETAILS

PROJECT/APPLICANT
CITY OF PACIFIC
100 3rd AVENUE SE
PACIFIC, WASHINGTON 98047

SHEET NO. ND-32

SITE SPECIFIC DATA

		3016	
PROJECT NAME		WEST VALLEY HWY	
PROJECT LOCATION		PACIFIC, WA	
STRUCTURE ID		CB #29	
TREATMENT REQUIRED			
VOLUME BASED (CF)		FLOW BASED (CFS)	
		0.0139	
TREATMENT HGL AVAILABLE (FT)			N/A
PEAK BYPASS REQUIRED (CFS)			0.0667
PIPE DATA	I.E.	MATERIAL	DIAMETER
INLET PIPE	N/A	N/A	N/A
OUTLET PIPE	71.08	CPEP	12"
	PRETREATMENT	BIOFILTRATION	DISCHARGE
RIM ELEVATION	77.02	77.02	77.02
SURFACE LOAD	PEDESTRIAN	PEDESTRIAN	PEDESTRIAN
FRAME & COVER	ø30"	ø30"	N/A
WETLANDMEDIA VOLUME (CY)			1.28
WETLANDMEDIA DELIVERY METHOD			PER CONTRACT
ORIFICE SIZE (DIA. INCHES)			ø1.11"
NOTES: PRELIMINARY, NOT FOR CONSTRUCTION.			



INSTALLATION NOTES

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2/6/19ASPOLAR

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TREATMENT FLOW (CFS)	0.055
OPERATING HEAD (FT)	2.8
PRETREATMENT LOADING RATE (GPM/SF)	1.9
WETLAND MEDIA LOADING RATE (GPM/SF)	1.0

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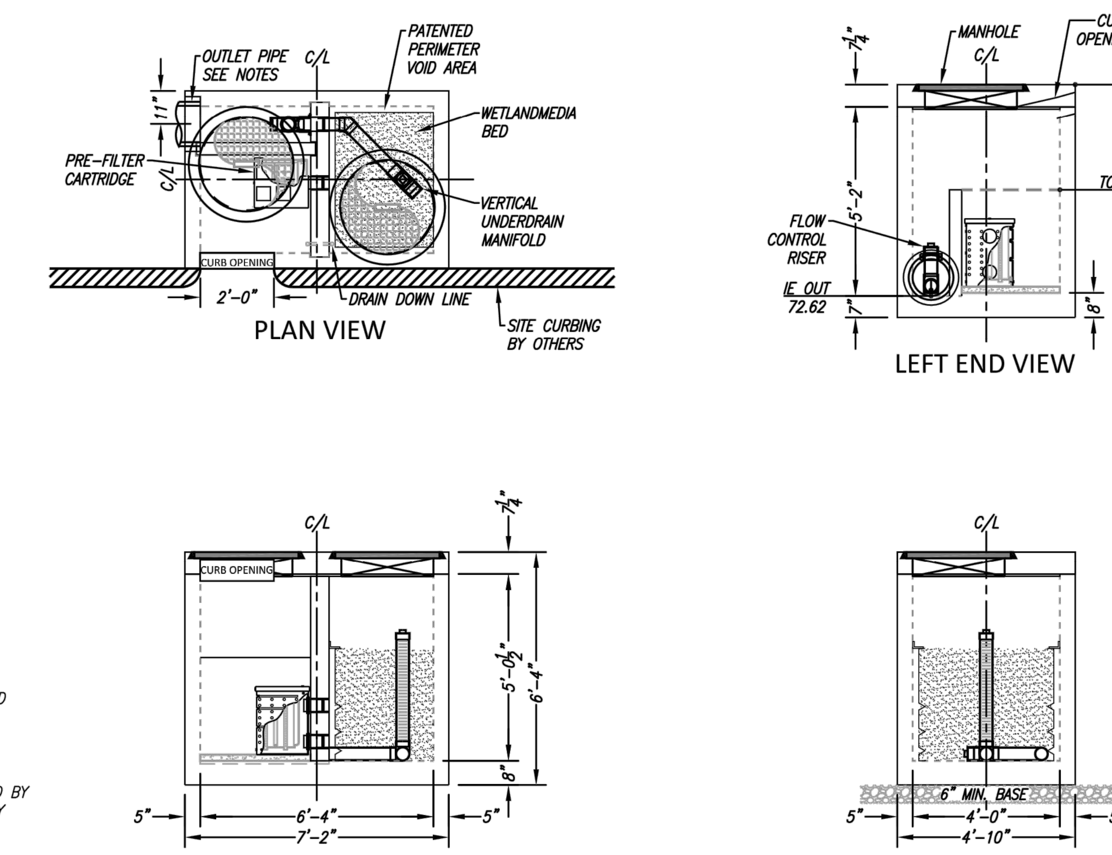
Bio Clean
A Forterra Company

MWS-L-4-6.33-C-UG
STORMWATER BIOFILTRATION SYSTEM
STANDARD DETAIL

CB #29 MODULAR WETLAND UNIT (1)
NOT TO SCALE

SITE SPECIFIC DATA

		3016	
PROJECT NAME		WEST VALLEY HWY	
PROJECT LOCATION		PACIFIC, WA	
STRUCTURE ID		CB #34	
TREATMENT REQUIRED			
VOLUME BASED (CF)		FLOW BASED (CFS)	
		0.0064	
TREATMENT HGL AVAILABLE (FT)			N/A
PEAK BYPASS REQUIRED (CFS)			0.0310
PIPE DATA	I.E.	MATERIAL	DIAMETER
INLET PIPE	N/A	N/A	N/A
OUTLET PIPE	72.62	CPEP	12"
	PRETREATMENT	BIOFILTRATION	DISCHARGE
RIM ELEVATION	78.41	78.41	78.41
SURFACE LOAD	PEDESTRIAN	PEDESTRIAN	PEDESTRIAN
FRAME & COVER	ø30"	ø30"	N/A
WETLANDMEDIA VOLUME (CY)			1.28
WETLANDMEDIA DELIVERY METHOD			PER CONTRACT
ORIFICE SIZE (DIA. INCHES)			ø1.11"
NOTES: PRELIMINARY, NOT FOR CONSTRUCTION.			



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2/6/19ASPOLAR

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TREATMENT FLOW (CFS)	0.055
OPERATING HEAD (FT)	2.8
PRETREATMENT LOADING RATE (GPM/SF)	1.9
WETLAND MEDIA LOADING RATE (GPM/SF)	1.0

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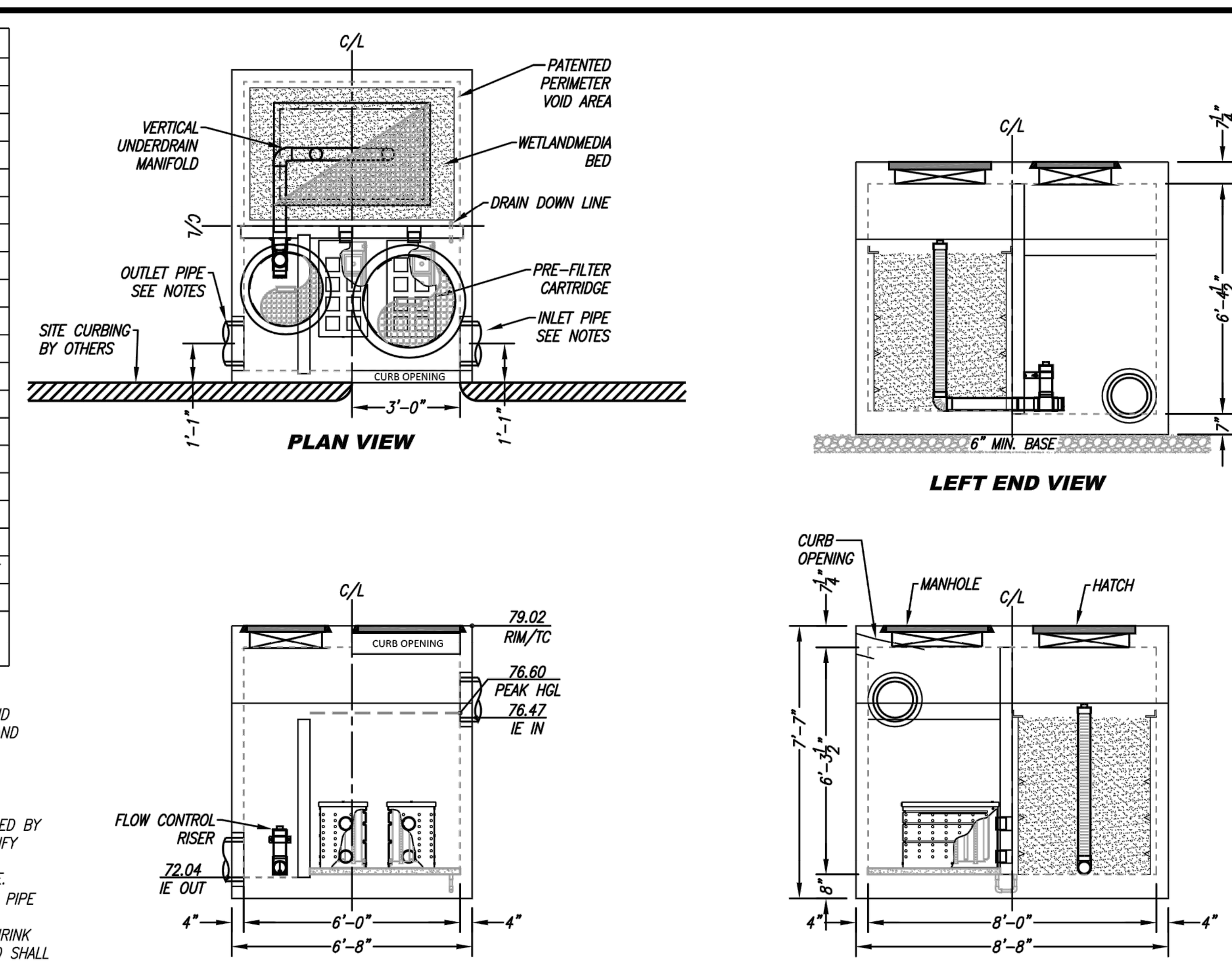
Bio Clean
A Forterra Company

MWS-L-4-6.33-C-UG
STORMWATER BIOFILTRATION SYSTEM
STANDARD DETAIL

CB #34 MODULAR WETLAND UNIT (2)
NOT TO SCALE

SITE SPECIFIC DATA

PROJECT NUMBER		3016	
PROJECT NAME		WEST VALLEY HWY	
PROJECT LOCATION		PACIFIC, WA	
STRUCTURE ID		CB #51	
TREATMENT REQUIRED			
VOLUME BASED (CF)		FLOW BASED (CFS)	
		0.1819	
TREATMENT HGL AVAILABLE (FT)			N/A
PEAK BYPASS REQUIRED (CFS) – IF APPLICABLE			0.8681
PIPE DATA	I.E.	MATERIAL	DIAMETER
INLET PIPE	76.47	CPEP	12"
	72.04	CPEP	12"
OUTLET PIPE	72.04	CPEP	12"
	PRETREATMENT	BIOFILTRATION	DISCHARGE
RIM ELEVATION	79.01	79.01	79.01
SURFACE LOAD	PEDESTRIAN	PEDESTRIAN	PEDESTRIAN
FRAME & COVER	ø30"	30" X 48"	ø24"
ACTIVE WETLANDMEDIA VOLUME (CY)			3.88
WETLANDMEDIA DELIVERY METHOD			PER CONTRACT
ORIFICE SIZE (DIA. INCHES)			ø1.83"
NOTES: PRELIMINARY, NOT FOR CONSTRUCTION.			



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7. CONTRACTOR RESPONSIBLE FOR CONTACTING MODULAR WETLANDS FOR ACTIVATION OF UNIT. MANUFACTURES WARRANTY IS VOID WITH OUT PROPER ACTIVATION BY A MODULAR WETLANDS REPRESENTATIVE.

GENERAL NOTES

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2/6/19ASPOLAR

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TREATMENT FLOW (CFS)	0.184
OPERATING HEAD (FT)	4.3
PRETREATMENT LOADING RATE (GPM/SF)	1.6
WETLAND MEDIA LOADING RATE (GPM/SF)	1.0

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Bio Clean
A Forterra Company

MWS-L-6-8-V-UG-HC
STORMWATER BIOFILTRATION SYSTEM
STANDARD DETAIL

CB #51 MODULAR WETLAND UNIT (3)
NOT TO SCALE

811
Know what's **below.**
Call before you dig.

100% DESIGN SUBMITTAL

WILLIAM J. FIERST
STATE OF WASHINGTON
41803
REGISTERED PROFESSIONAL ENGINEER
02/19/2019

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AHBL
TACOMA · SEATTLE · SPOKANE · TRI-CITIES
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JOB NO. 2130176.10, 2140392.10
DRAWING NO.

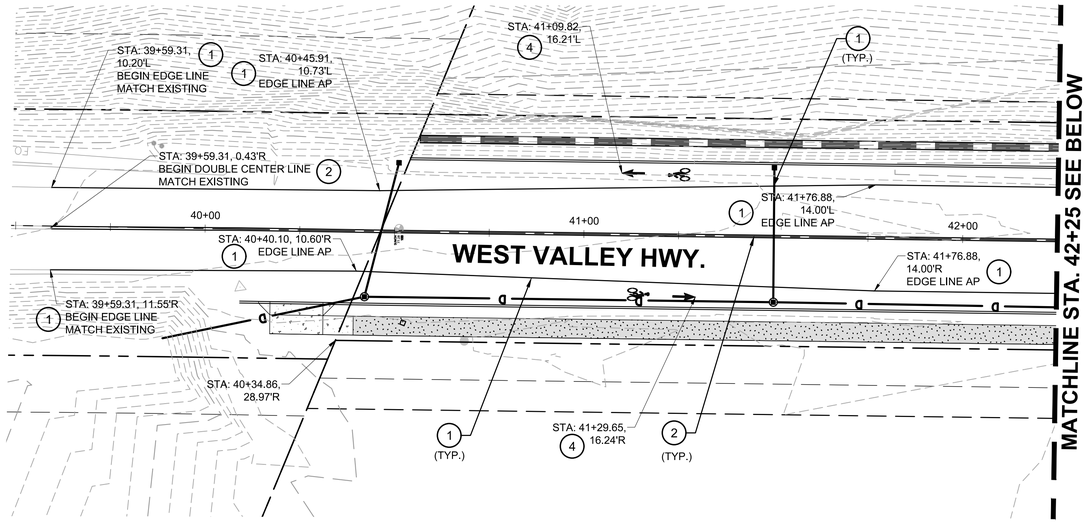
City of Pacific
100 3rd Avenue Southeast
Pacific, WA 98047
Phone: (253)929-1110
Fax: (253)887-9910

DESIGNED	A. TURPIN
DRAWN	A. TURPIN
CHECKED	A. BRAUN
APPROVED	W. FIERST
SCALE	AS NOTED
DATE	FEBRUARY 2019

WEST VALLEY HIGHWAY ROADWAY IMPROVEMENT PROJECT
NOTES AND DETAILS

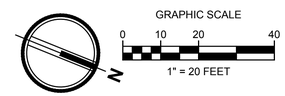
PROJECT/APPLICANT
CITY OF PACIFIC
100 3rd AVENUE SE
PACIFIC, WASHINGTON 98047

SHEET NO. ND-33



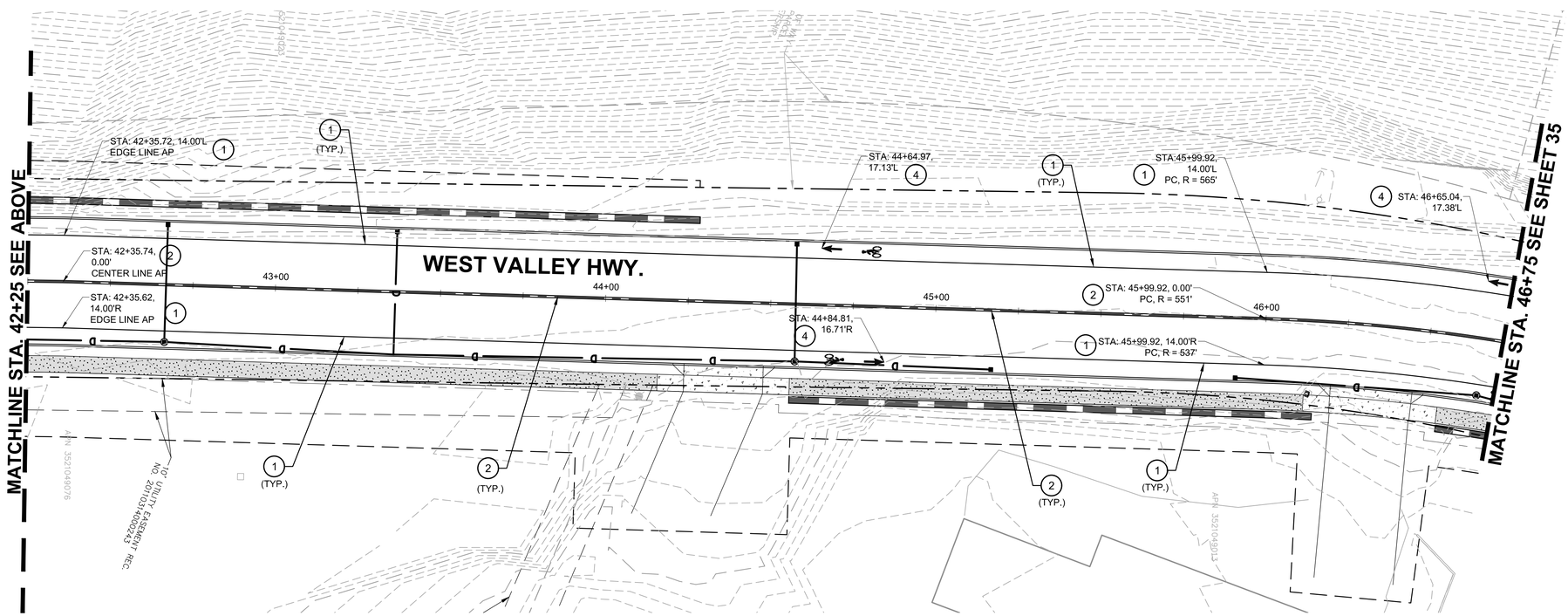
STA. 39+50 TO STA. 42+25

SCALE: 1" = 20'



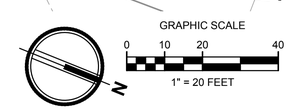
KEYNOTES:

1. 4" SOLID PLASTIC WHITE EDGE LANE LINE PER WSDOT STD PLAN M-20.10-02.
2. 4" SOLID PLASTIC YELLOW DOUBLE CENTER LANE LINE PER WSDOT STD PLAN M-20.10-02.
3. TYPE 2SL TRAFFIC ARROW PER WSDOT STD PLAN M-24.40-02.
4. BICYCLE LANE SYMBOL PER WSDOT STD PLAN M-9.50-02.
5. TYPE 3SR TRAFFIC ARROW PER WSDOT STD PLAN M-24.40-02.
6. STOP LINE PER WSDOT STD PLAN M-24.60-04.
7. CROSSWALK PER WSDOT STD PLAN M-15.10-01.



STA. 42+25 TO STA. 46+75

SCALE: 1" = 20'



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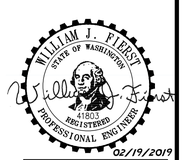

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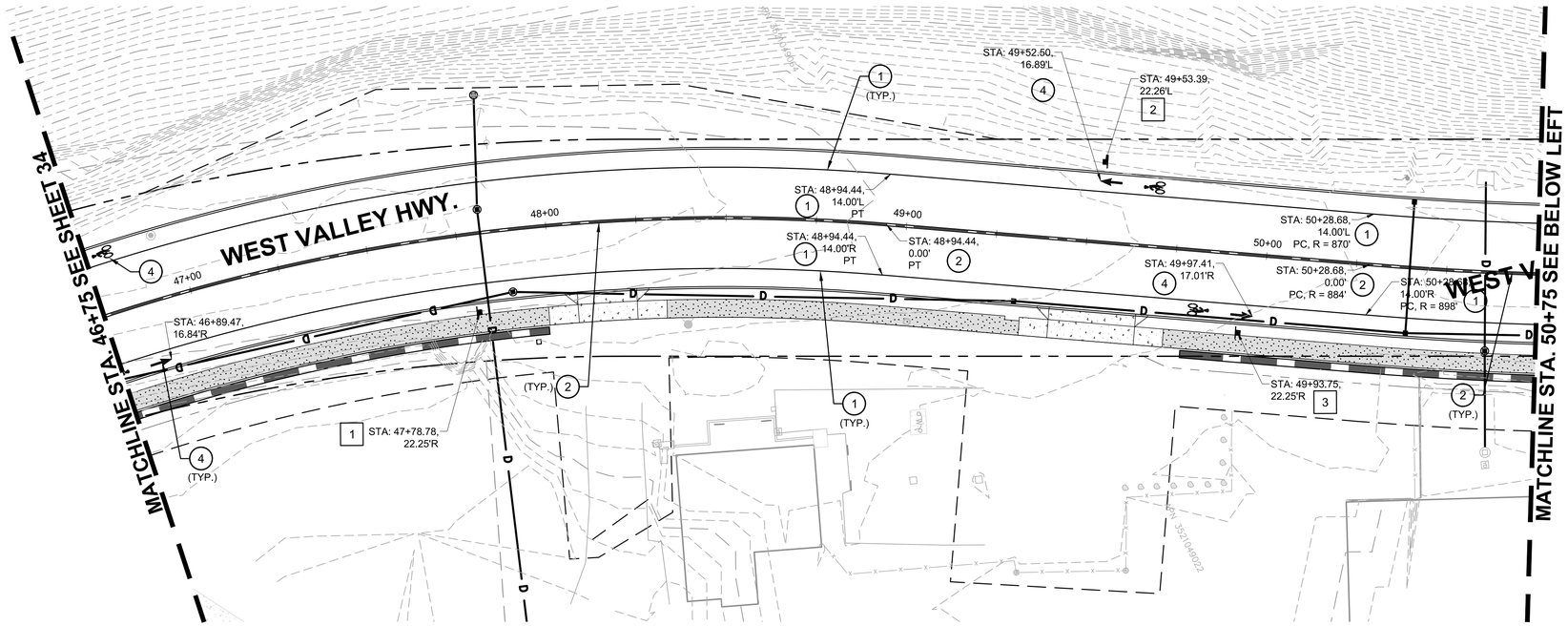
Fax: (253)887-9910

DESIGNED A. TURPIN
DRAWN A. TURPIN
CHECKED A. BRAUN
APPROVED W. FIERST
SCALE AS NOTED
DATE FEBRUARY 2019

WEST VALLEY HIGHWAY ROADWAY IMPROVEMENT PROJECT SIGNING - STRIPING

PROJECT/APPLICANT
CITY OF PACIFIC
100 3rd AVENUE SE
PACIFIC, WASHINGTON 98047

SHEET NO. SS-34



STA. 46+75 TO STA. 50+75

SCALE: 1" = 20'

GRAPHIC SCALE

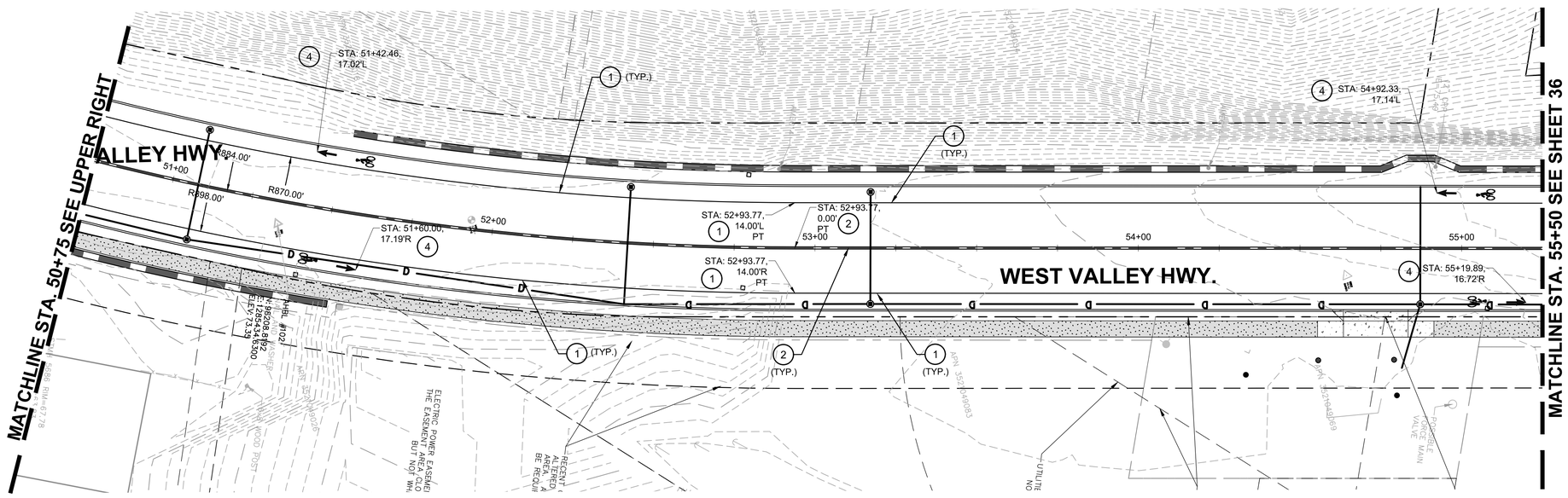
0 10 20 40

1" = 20 FEET

SIGN TABLE			
KEYNOTE	SIGN CODE	TEXT	"H1" POST HEIGHT
1	W 1-4	CURVES AHEAD	9.42'
2	R2-1	SPEED LIMIT 35 MPH	9.67'
3	R2-1	SPEED LIMIT 35 MPH	9.67'

KEYNOTES:

1. 4" SOLID PLASTIC WHITE EDGE LANE LINE PER WSDOT STD PLAN M-20.10-02.
2. 4" SOLID PLASTIC YELLOW DOUBLE CENTER LANE LINE PER WSDOT STD PLAN M-20.10-02.
3. TYPE 2SL TRAFFIC ARROW PER WSDOT STD PLAN M-24.40-02.
4. BICYCLE LANE SYMBOL PER WSDOT STD PLAN M-9.50-02.
5. TYPE 3SR TRAFFIC ARROW PER WSDOT STD PLAN M-24.40-02.
6. STOP LINE PER WSDOT STD PLAN M-24.60-04.
7. CROSSWALK PER WSDOT STD PLAN M-15.10-01.



STA. 50+75 TO STA. 55+50

SCALE: 1" = 20'

GRAPHIC SCALE

0 10 20 40

1" = 20 FEET

100% DESIGN SUBMITTAL

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WILLIAM J. FIERST
STATE OF WASHINGTON
41803
REGISTERED
PROFESSIONAL ENGINEER
02/19/2019

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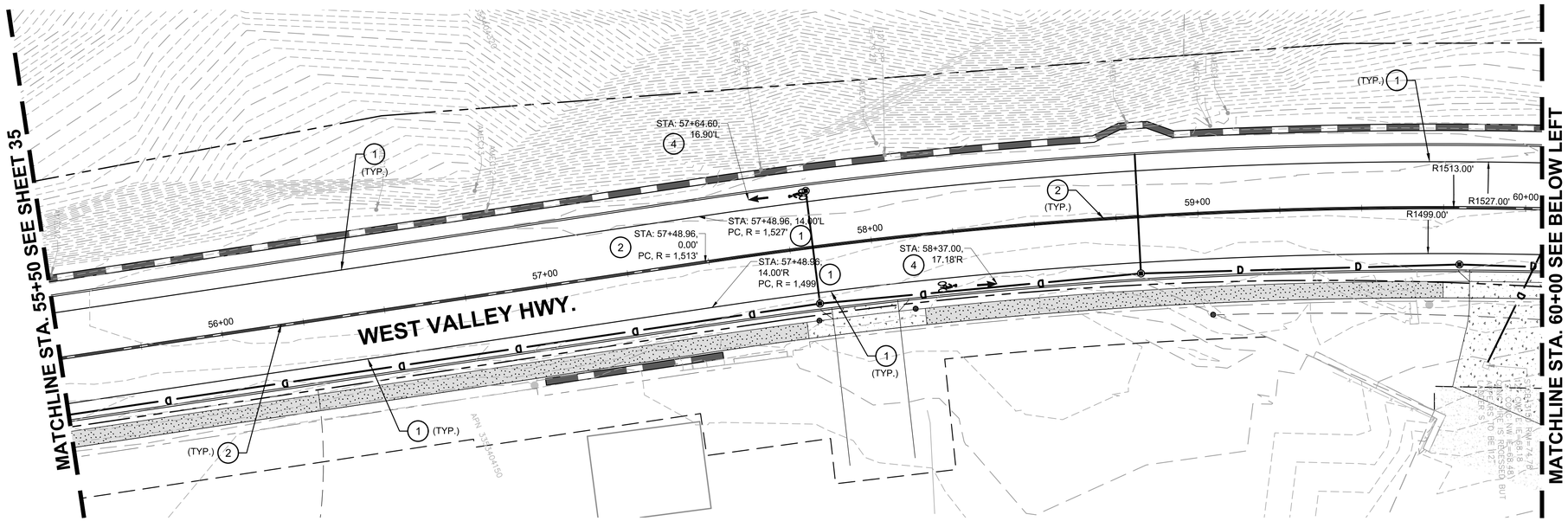
DESIGNED A. TURPIN
DRAWN A. TURPIN
CHECKED A. BRAUN
APPROVED W. FIERST
SCALE AS NOTED
DATE FEBRUARY 2019

WEST VALLEY HIGHWAY ROADWAY IMPROVEMENT PROJECT SIGNING - STRIPING

PROJECT/APPLICANT CITY OF PACIFIC 100 3rd AVENUE SE PACIFIC, WASHINGTON 98047

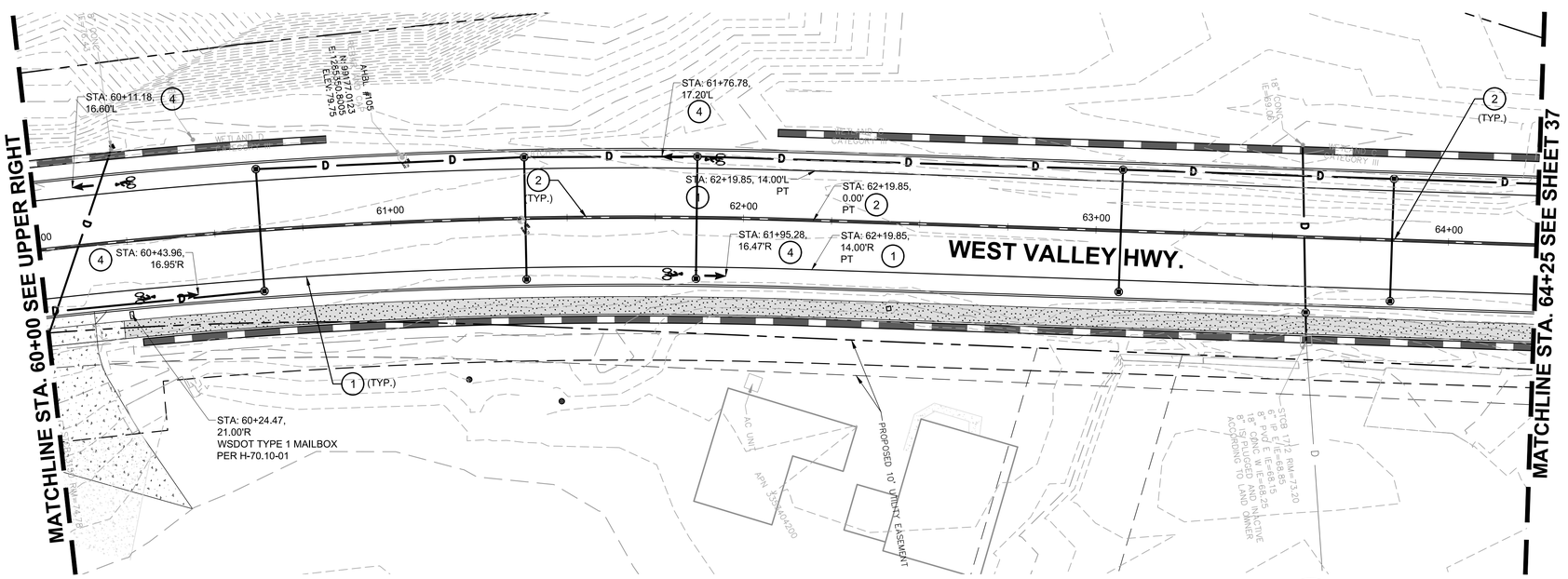
SHEET NO. SS-35

35 / 48



STA. 55+50 TO STA. 60+00

SCALE: 1" = 20'



STA. 60+00 TO STA. 64+25

SCALE: 1" = 20'

GRAPHIC SCALE

0 10 20 40

1" = 20 FEET

KEYNOTES:

1. 4" SOLID PLASTIC WHITE EDGE LANE LINE PER WSDOT STD PLAN M-20.10-02.
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5. TYPE 3SR TRAFFIC ARROW PER WSDOT STD PLAN M-24.40-02.
6. STOP LINE PER WSDOT STD PLAN M-24.60-04.
7. CROSSWALK PER WSDOT STD PLAN M-15.10-01.

WILLIAM J. FIERST
STATE OF WASHINGTON
41803
REGISTERED
PROFESSIONAL ENGINEER
02/19/2019

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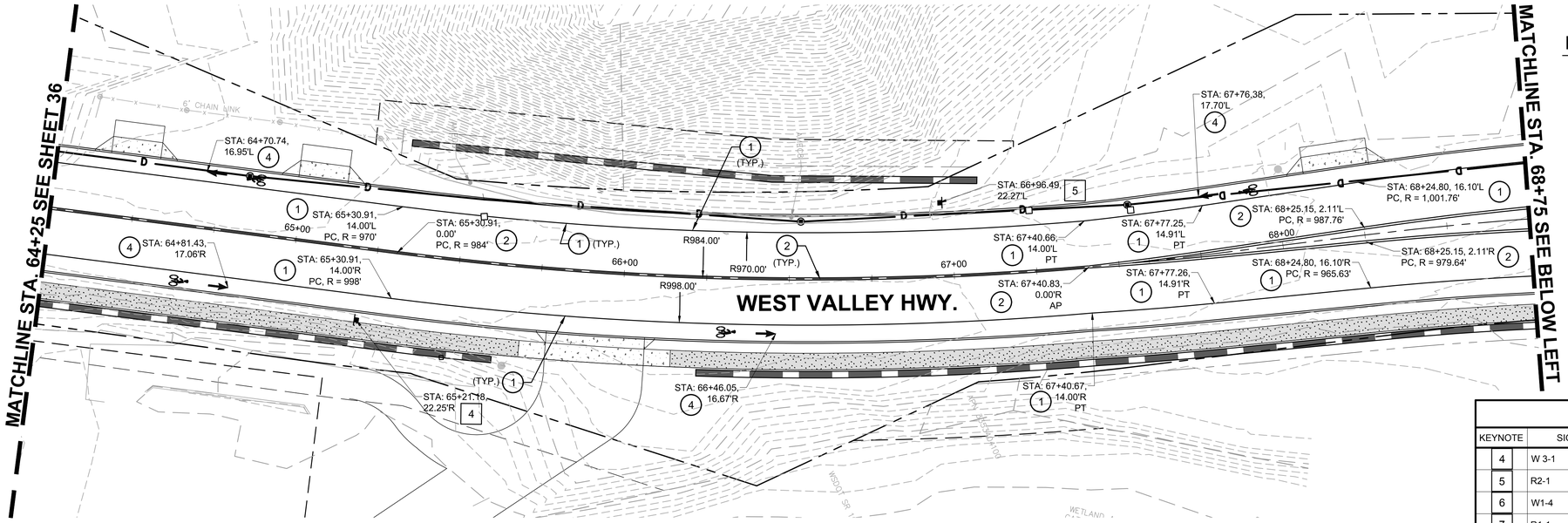
Pacific, WA 98047
Phone: (253)929-1110
Fax: (253)887-9910

DESIGNED A. TURPIN
DRAWN A. TURPIN
CHECKED A. BRAUN
APPROVED W. FIERST
SCALE AS NOTED
DATE FEBRUARY 2019

WEST VALLEY HIGHWAY ROADWAY IMPROVEMENT PROJECT SIGNING - STRIPING

PROJECT/APPLICANT CITY OF PACIFIC 100 3rd AVENUE SE PACIFIC, WASHINGTON 98047

SHEET NO. SS-36



KEYNOTES:

1. 4" SOLID PLASTIC WHITE EDGE LANE LINE PER WSDOT STD PLAN M-20.10-02.
2. 4" SOLID PLASTIC YELLOW DOUBLE CENTER LANE LINE PER WSDOT STD PLAN M-20.10-02.
3. TYPE 2SL TRAFFIC ARROW PER WSDOT STD PLAN M-24.40-02.
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6. STOP LINE PER WSDOT STD PLAN M-24.60-04.
7. CROSSWALK PER WSDOT STD PLAN M-15.10-01.

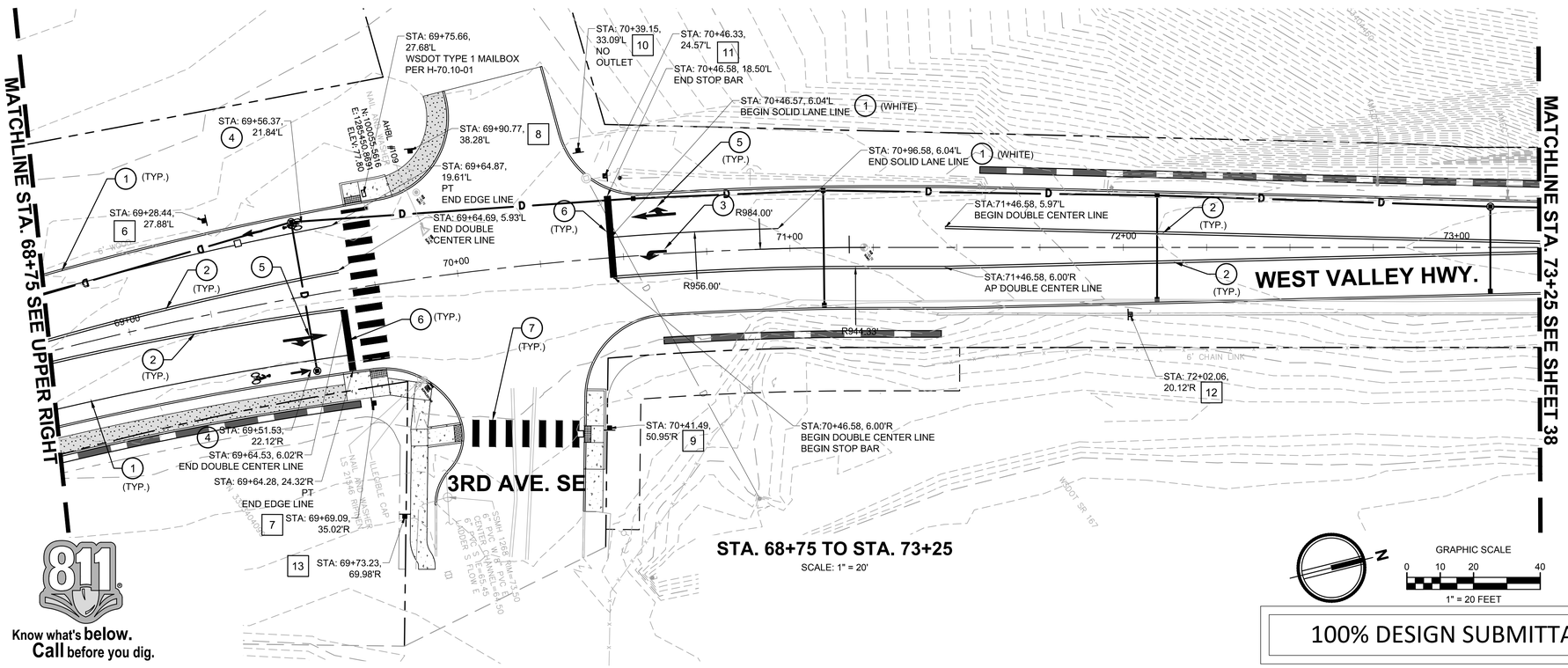
SIGN TABLE

KEYNOTE	SIGN CODE	TEXT	"H1" POST HEIGHT
4	W 3-1	STOP AHEAD	9.42'
5	R2-1	SPEED LIMIT 35 MPH	9.67'
6	W1-4	CURVES AHEAD	9.42'
7	R1-1	STOP	9.42'
8	R1-1, R1-3P, D3-1	STOP, ALL WAY, STREET NAME	11.17'
9	R1-1, R1-3P, D3-1	STOP, ALL WAY, STREET NAME	11.17'
10	W14-2	NO OUTLET	9.42'
11	R1-1	STOP	9.42'
12	R2-1	SPEED LIMIT 35 MPH	9.67'
13	R2-1	SPEED LIMIT 25 MPH	9.67'

STA. 64+25 TO STA. 68+75

SCALE: 1" = 20'

GRAPHIC SCALE 0 10 20 40
1" = 20 FEET



STA. 68+75 TO STA. 73+25

SCALE: 1" = 20'

GRAPHIC SCALE 0 10 20 40
1" = 20 FEET

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Fax: (253)887-9910

DESIGNED A. TURPIN
DRAWN A. TURPIN
CHECKED A. BRAUN
APPROVED W. FIERST
SCALE AS NOTED
DATE FEBRUARY 2019

WEST VALLEY HIGHWAY ROADWAY IMPROVEMENT PROJECT SIGNING - STRIPING

PROJECT/APPLICANT CITY OF PACIFIC 100 3rd AVENUE SE PACIFIC, WASHINGTON 98047

WILLIAM J. FIERST STATE OF WASHINGTON 41803 REGISTERED PROFESSIONAL ENGINEER 02/19/2019

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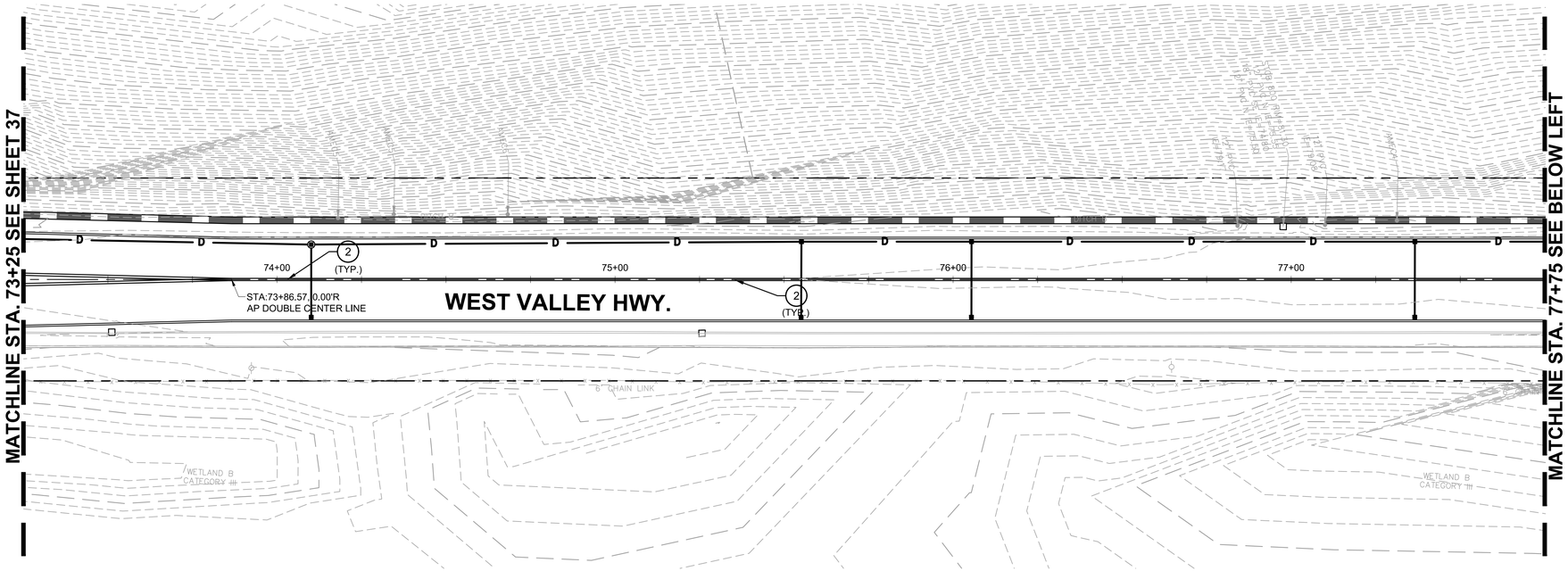


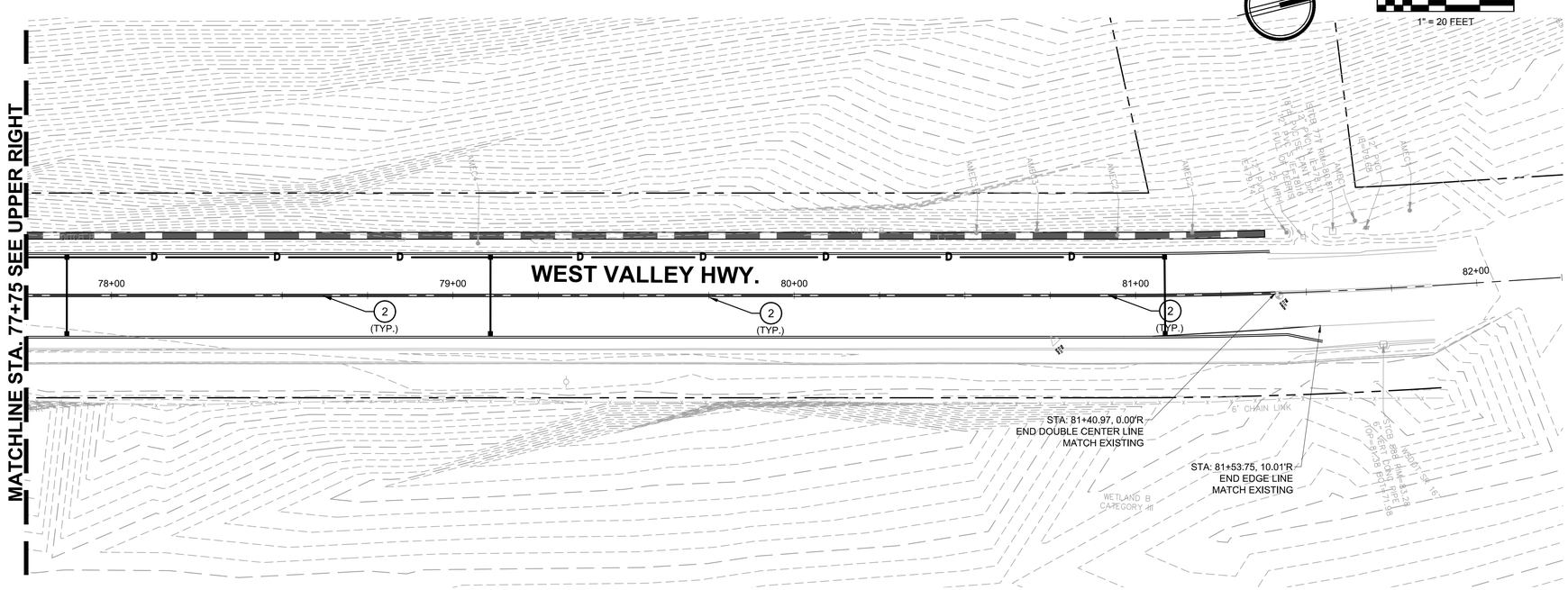
STA. 73+25 TO STA. 77+75

SCALE: 1" = 20'

GRAPHIC SCALE

0 10 20 40

1" = 20 FEET



STA. 77+75 TO STA. 82+25

SCALE: 1" = 20'

GRAPHIC SCALE

0 10 20 40

1" = 20 FEET

KEYNOTES:

1. 4" SOLID PLASTIC WHITE EDGE LANE LINE PER WSDOT STD PLAN M-20.10-02.
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6. STOP LINE PER WSDOT STD PLAN M-24.60-04.
7. CROSSWALK PER WSDOT STD PLAN M-15.10-01.

WILLIAM J. FIERST
STATE OF WASHINGTON
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DRAWN A. TURPIN
CHECKED A. BRAUN
APPROVED W. FIERST
SCALE AS NOTED
DATE FEBRUARY 2019

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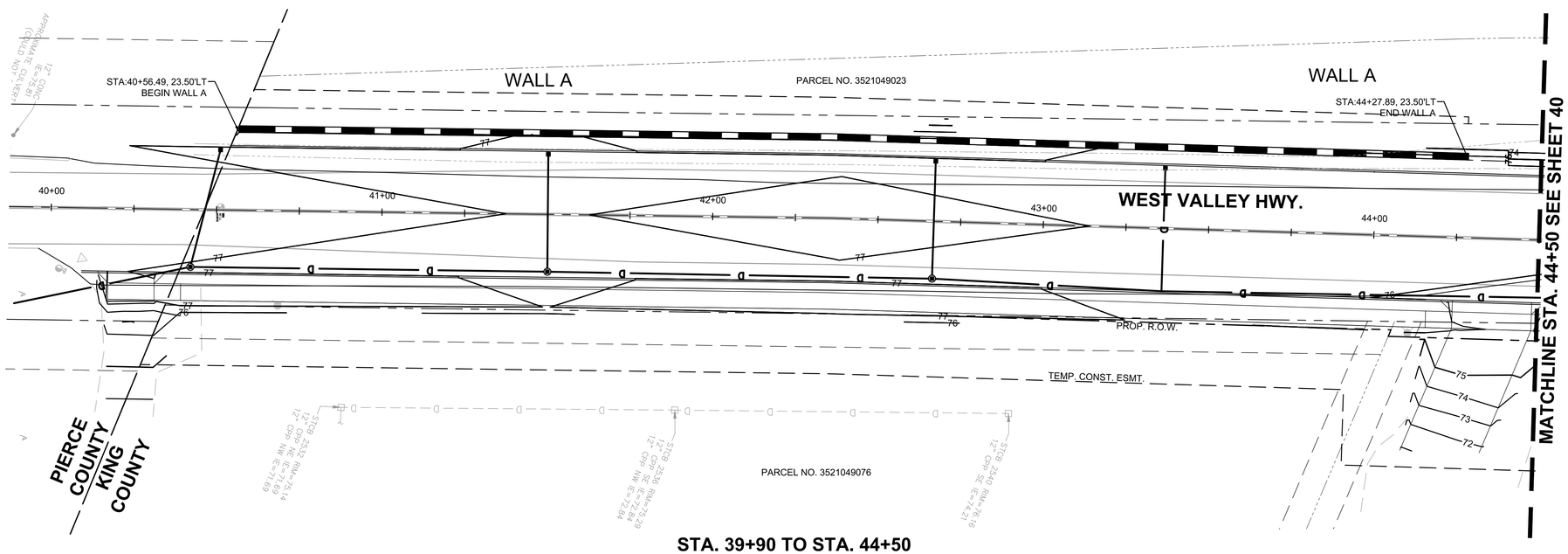
PACIFIC, WASHINGTON 98047

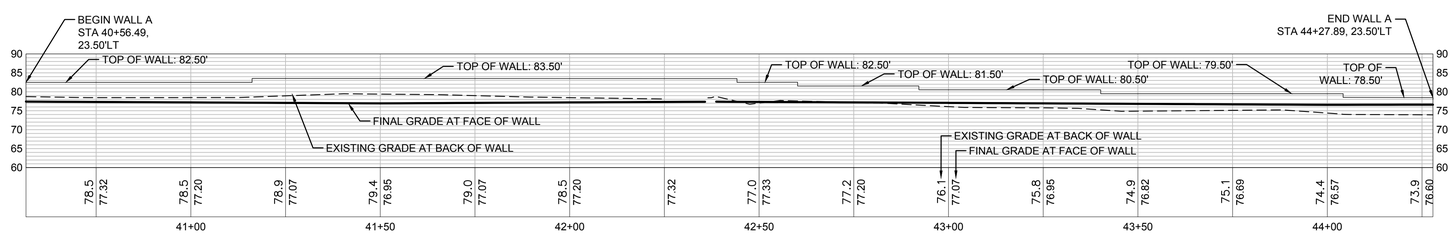
SHEET NO. SS-38

GRAPHIC SCALE
0 10 20 40
1" = 20 FEET



STA. 39+90 TO STA. 44+50

SCALE: 1" = 20'



RETAINING WALL A PROFILE
STA. 40+56.49 TO STA. 44+27.89

VERTICAL SCALE: 1" = 1'

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SCALE AS NOTED
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WEST VALLEY HIGHWAY ROADWAY IMPROVEMENT PROJECT WALLS

PROJECT/APPLICANT
CITY OF PACIFIC
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PACIFIC, WASHINGTON 98047

SHEET NO. W-39

39 / 48

WILLIAM J. FIERST
STATE OF WASHINGTON
41803
REGISTERED
PROFESSIONAL ENGINEER
02/19/2019

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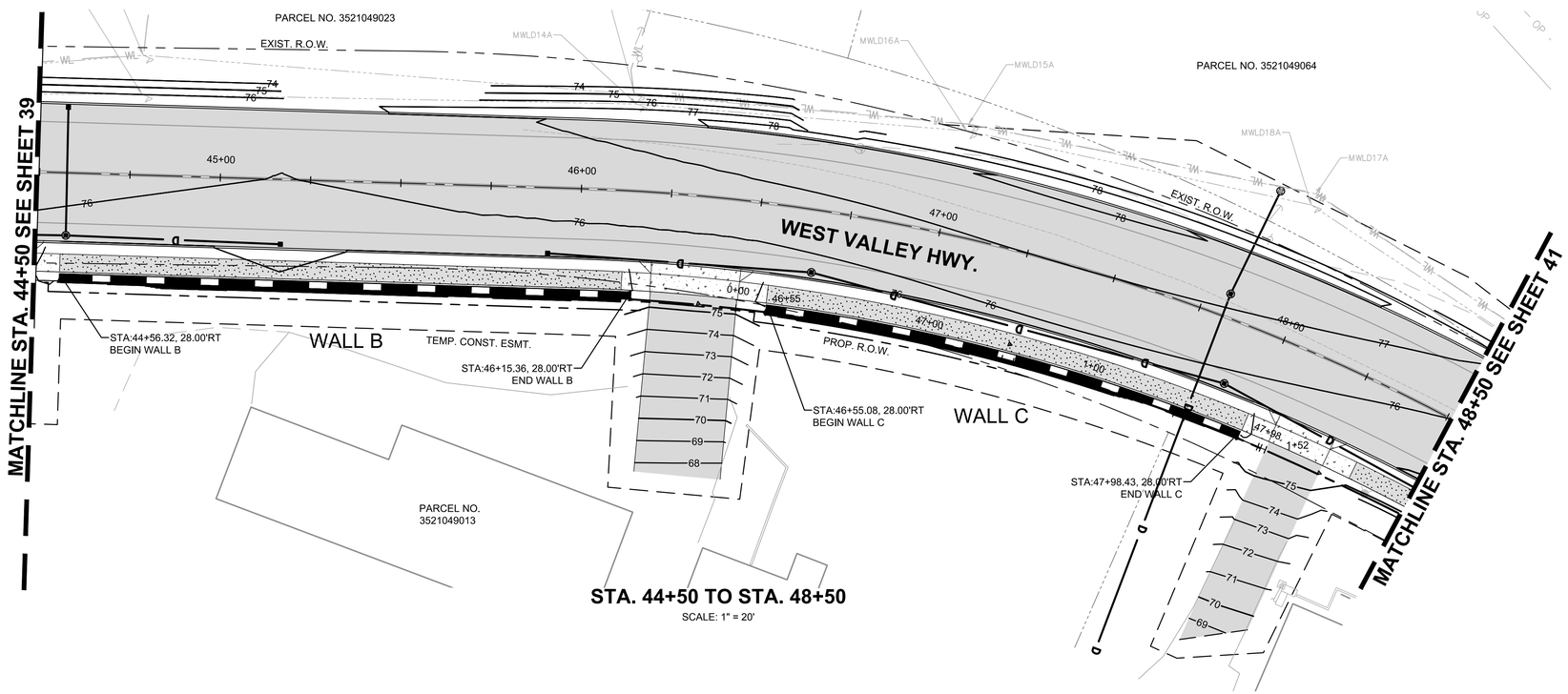
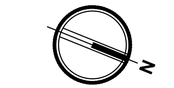
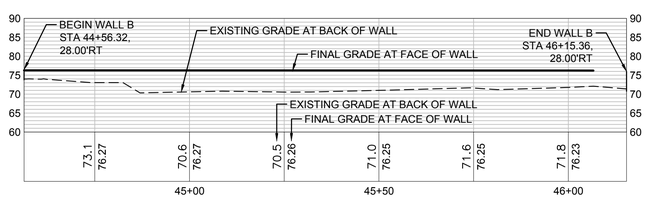


STA. 44+50 TO STA. 48+50

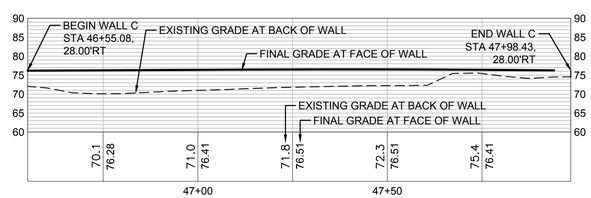
SCALE: 1" = 20'





RETAINING WALL B PROFILE
STA. 44+56.32 TO STA. 46+15.36

VERTICAL SCALE: 1" = 1'



RETAINING WALL C PROFILE
STA. 46+55.08 TO STA. 47+98.43

VERTICAL SCALE: 1" = 1'

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City of Pacific
100 3rd Avenue Southeast
Pacific, WA 98047
Phone: (253)929-1110
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DESIGNED A. TURPIN
DRAWN A. TURPIN
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APPROVED W. FIERST
SCALE AS NOTED
DATE FEBRUARY 2019

WEST VALLEY HIGHWAY ROADWAY IMPROVEMENT PROJECT WALLS

PROJECT/APPLICANT
CITY OF PACIFIC
100 3rd AVENUE SE
PACIFIC, WASHINGTON 98047

SHEET NO. W-40

40 / 48

WILLIAM J. FIERST
STATE OF WASHINGTON
41803
REGISTERED
PROFESSIONAL ENGINEER
02/19/2019

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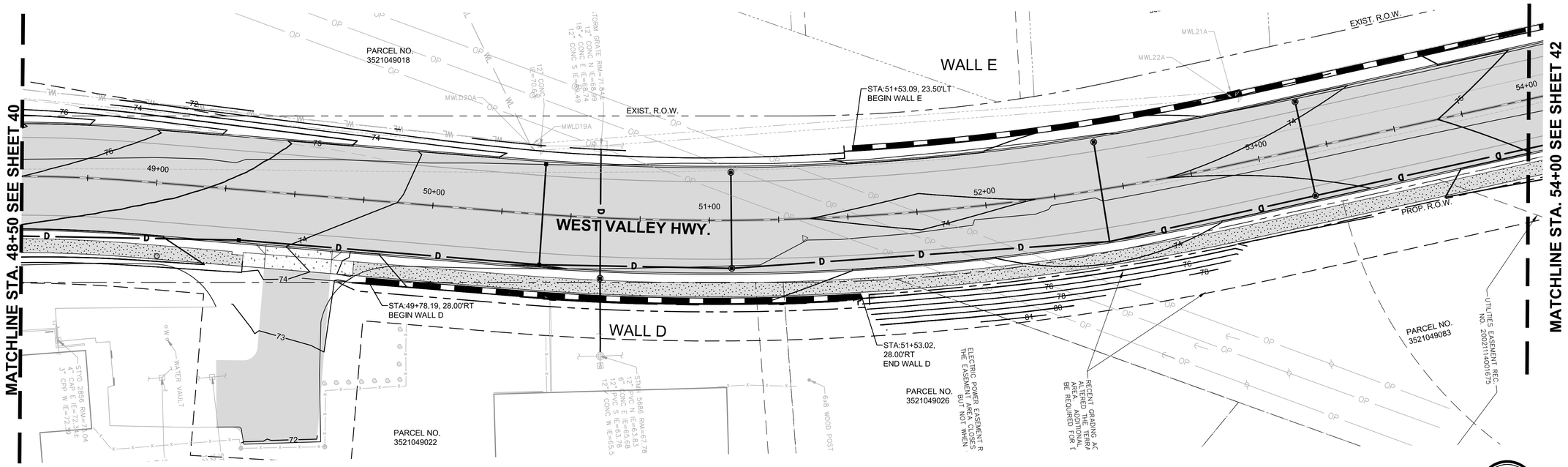
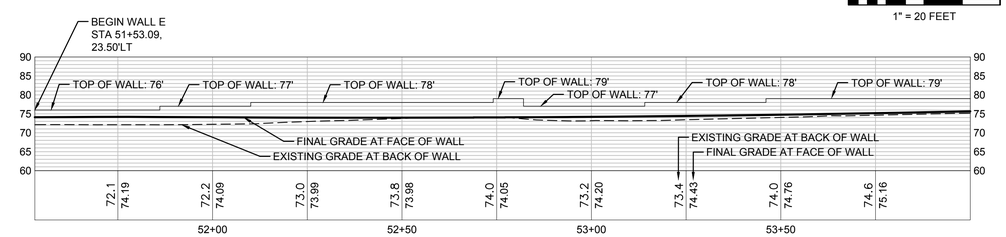


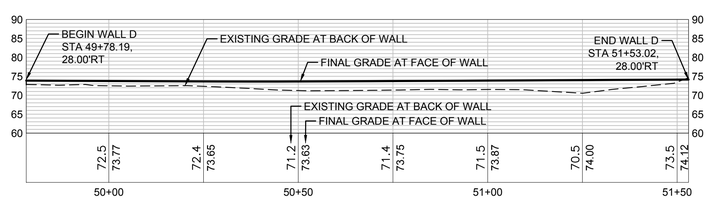
STA. 48+50 TO STA. 54+00
ROAD PLAN
SCALE: 1" = 20'

N

GRAPHIC SCALE
0 10 20 40
1" = 20 FEET



RETAINING WALL E PROFILE
STA. 51+53.09 TO STA. 54+00.00
VERTICAL SCALE: 1" = 1'



RETAINING WALL D PROFILE
STA. 49+78.19 TO STA. 51+53.02
VERTICAL SCALE: 1" = 1'

WILLIAM J. FIERST
STATE OF WASHINGTON
41803
REGISTERED
PROFESSIONAL ENGINEER
02/19/2019

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CHECKED A. BRAUN
APPROVED W. FIERST
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WEST VALLEY HIGHWAY ROADWAY IMPROVEMENT PROJECT WALLS

PROJECT/APPLICANT
CITY OF PACIFIC
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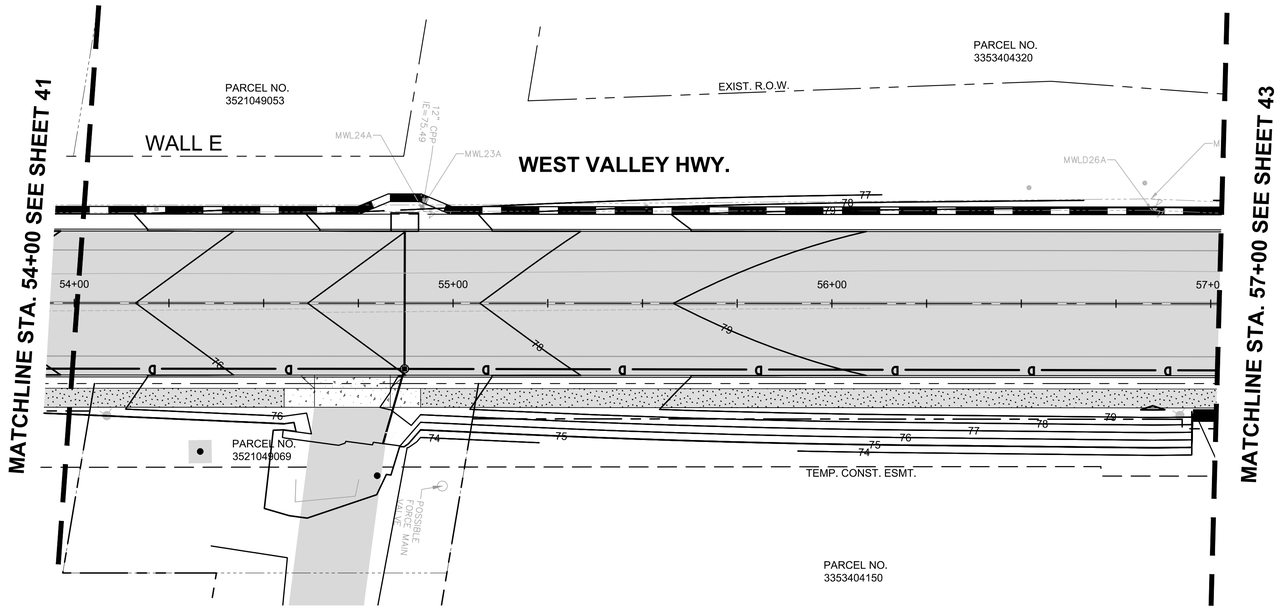
PACIFIC, WASHINGTON 98047

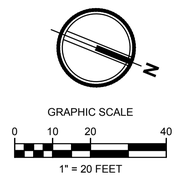
SHEET NO. W-41

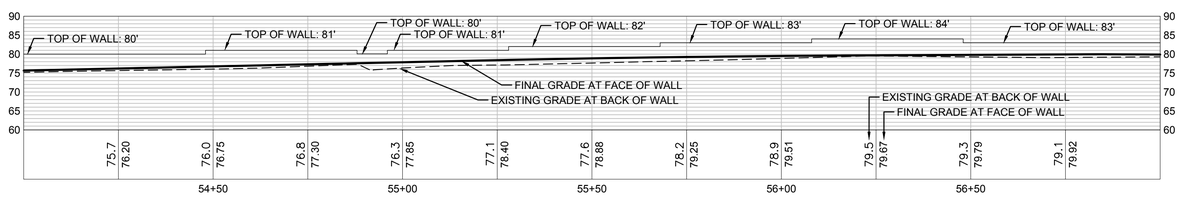
41 / 48



STA. 54+00 TO STA. 57+00

SCALE: 1" = 20'





RETAINING WALL E
STA. 54+00 TO STA. 57+00

VERTICAL SCALE: 1" = 5'

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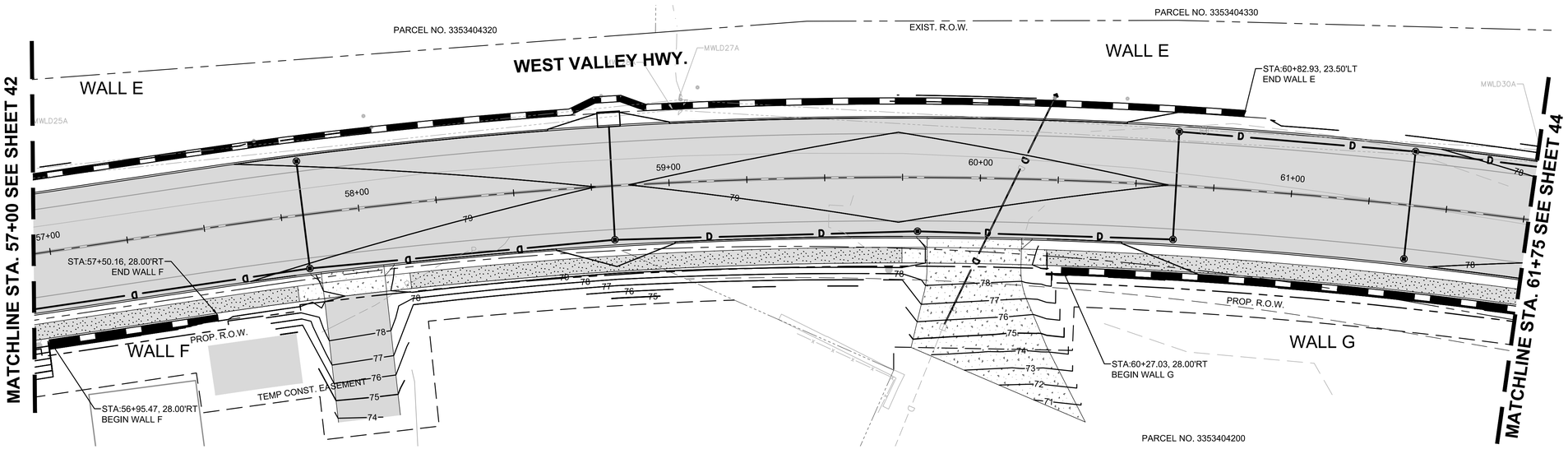
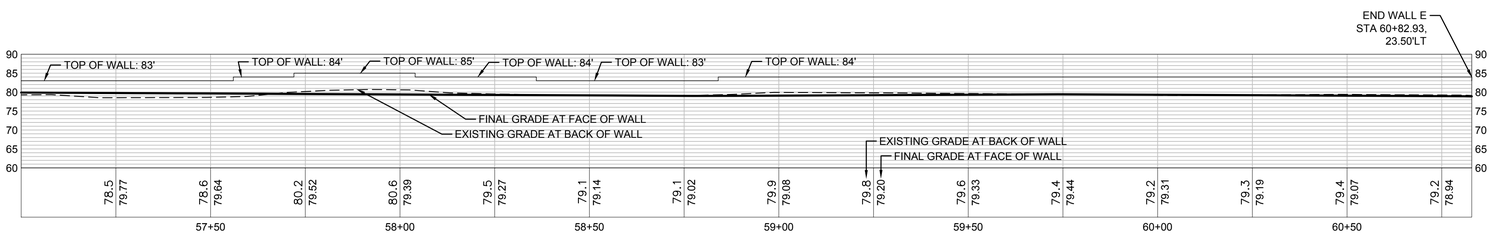


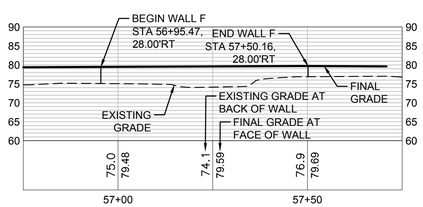
STA. 57+00 TO STA. 61+75
ROAD PLAN

SCALE: 1" = 20'



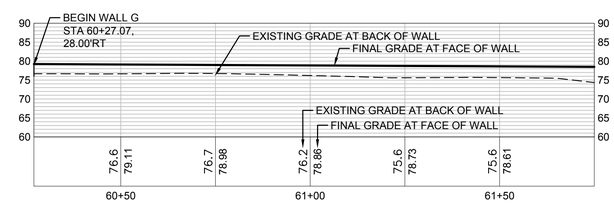
WALL E PROFILE
STA. 57+00 TO STA. 60+82.93

VERTICAL SCALE: 1" = 1'



WALL F PROFILE
STA. 56+75 TO STA. 57+50.16

VERTICAL SCALE: 1" = 1'



WALL G PROFILE
STA. 60+27.03 TO STA. 61+75

VERTICAL SCALE: 1" = 1'

GRAPHIC SCALE
0 10 20 40
1" = 20 FEET

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43 / 48

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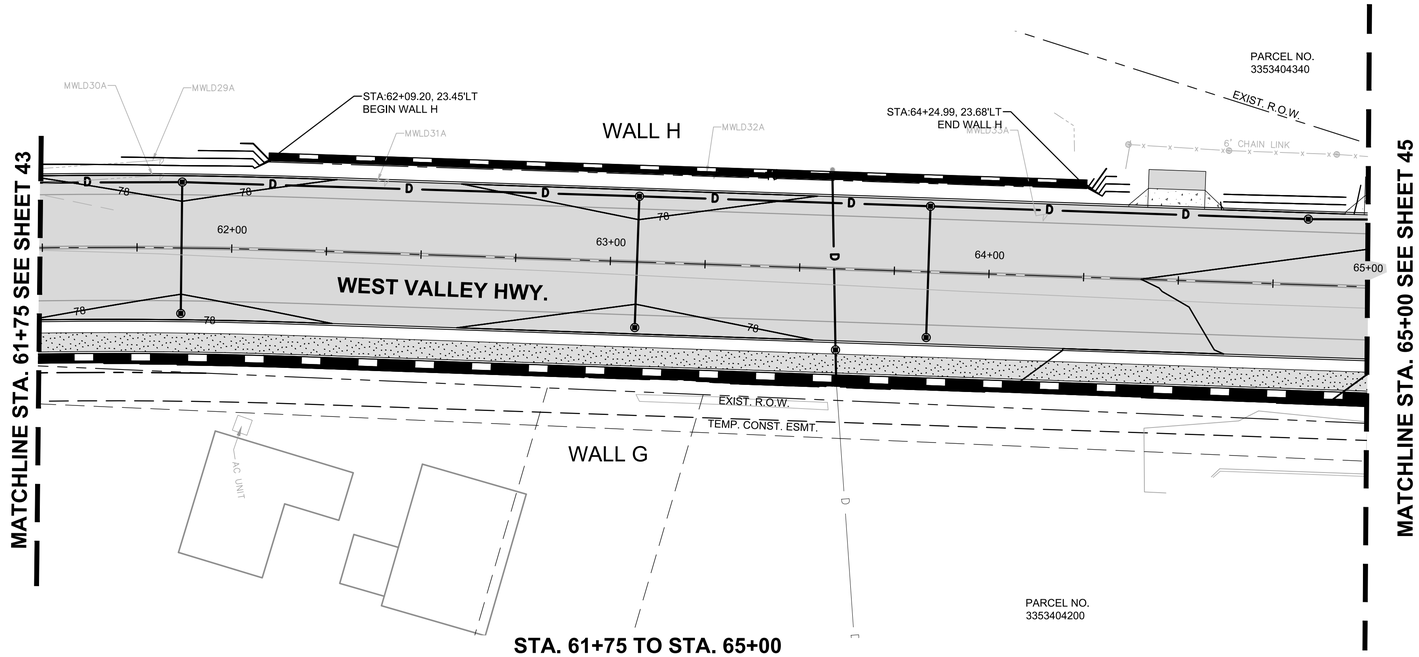
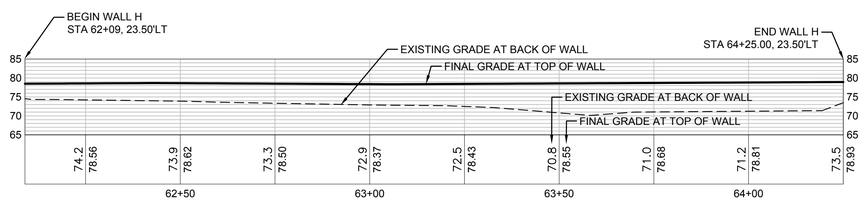


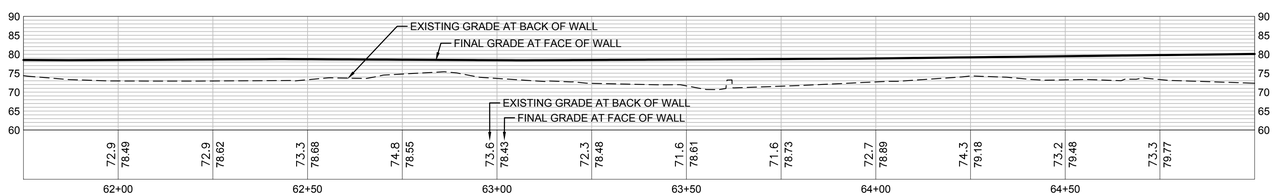
STA. 61+75 TO STA. 65+00

SCALE: 1" = 20'



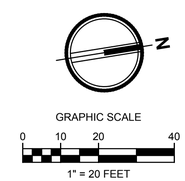
WALL H PROFILE
STA. 62+09 TO STA. 64+25

VERTICAL SCALE: 1" = 1'



WALL G PROFILE
STA. 61+75 TO STA. 65+00

VERTICAL SCALE: 1" = 1'



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DRAWN	A. TURPIN
CHECKED	A. BRAUN
APPROVED	W. FIERST
SCALE	AS NOTED
DATE	FEBRUARY 2019

WEST VALLEY HIGHWAY ROADWAY IMPROVEMENT PROJECT WALLS

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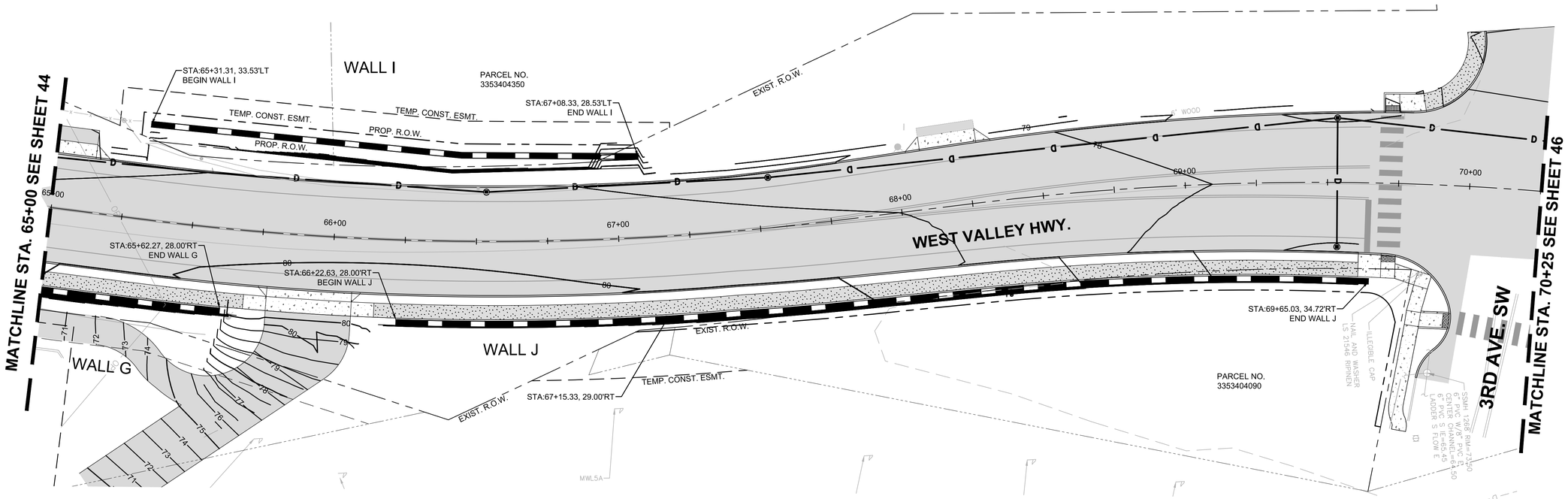
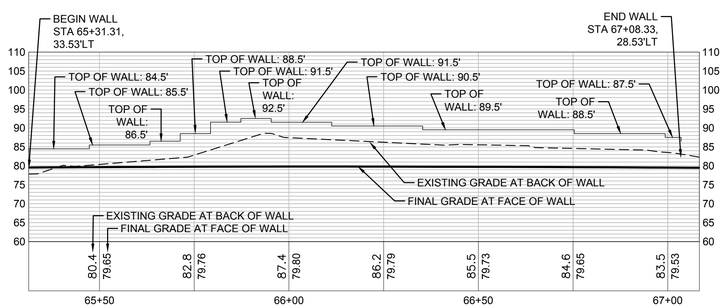


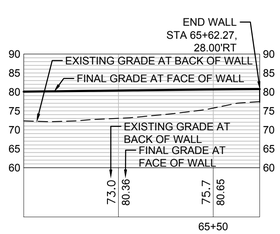
STA. 65+00 TO STA. 70+25

SCALE: 1" = 20'



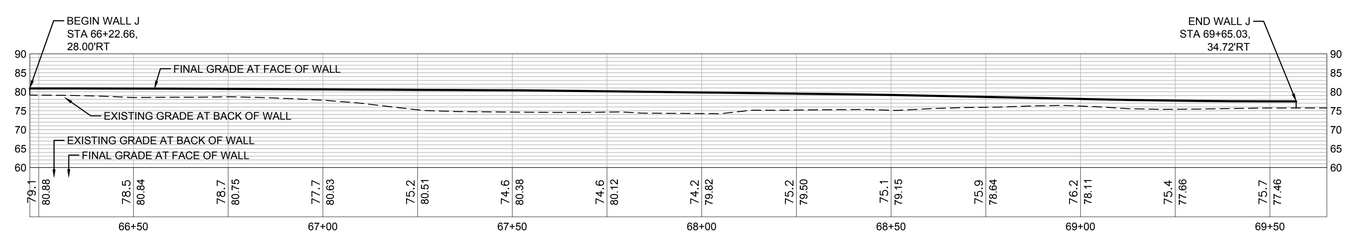
WALL I PROFILE
STA. 65+31.31 TO STA. 67+08.33

VERTICAL SCALE: 1" = 1'



WALL G PROFILE
STA. 65+00 TO STA. 65+62.27

VERTICAL SCALE: 1" = 1'



WALL J PROFILE
STA. 66+22.66 TO STA. 69+65.03

VERTICAL SCALE: 1" = 1'

GRAPHIC SCALE

0 10 20 40

1" = 20 FEET

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CHECKED A. BRAUN
APPROVED W. FIERST
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WEST VALLEY HIGHWAY ROADWAY IMPROVEMENT PROJECT WALLS

PROJECT/APPLICANT CITY OF PACIFIC 100 3rd AVENUE SE PACIFIC, WASHINGTON 98047

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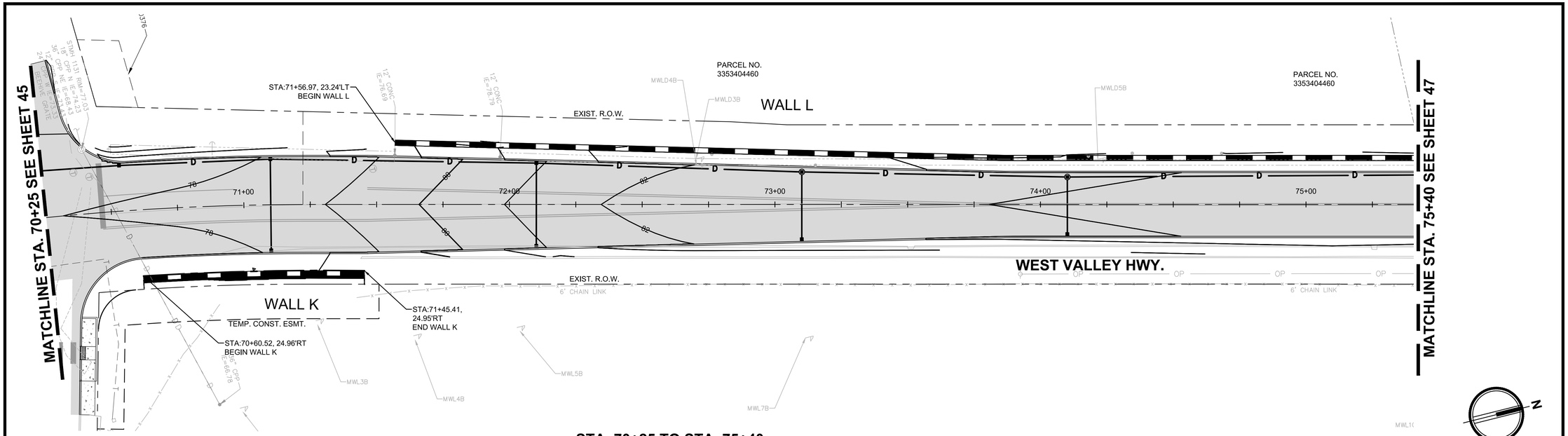


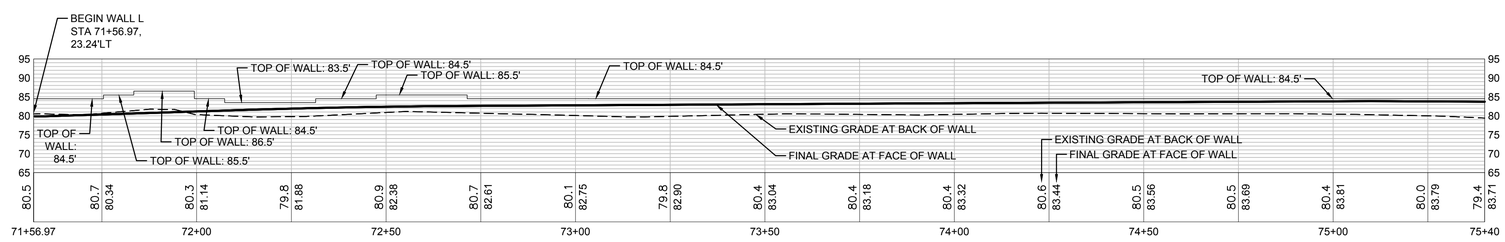
STA. 70+25 TO STA. 75+40

SCALE: 1" = 20'

GRAPHIC SCALE

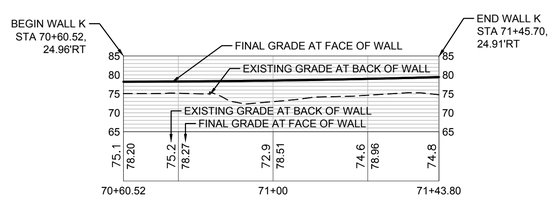
0 10 20 40

1" = 20 FEET



WALL L PROFILE
STA. 71+56.97 TO STA. 75+40

VERTICAL SCALE: 1" = 1'



WALL K PROFILE
STA. 70+60.52 TO STA. 71+45.70

VERTICAL SCALE: 1" = 1'

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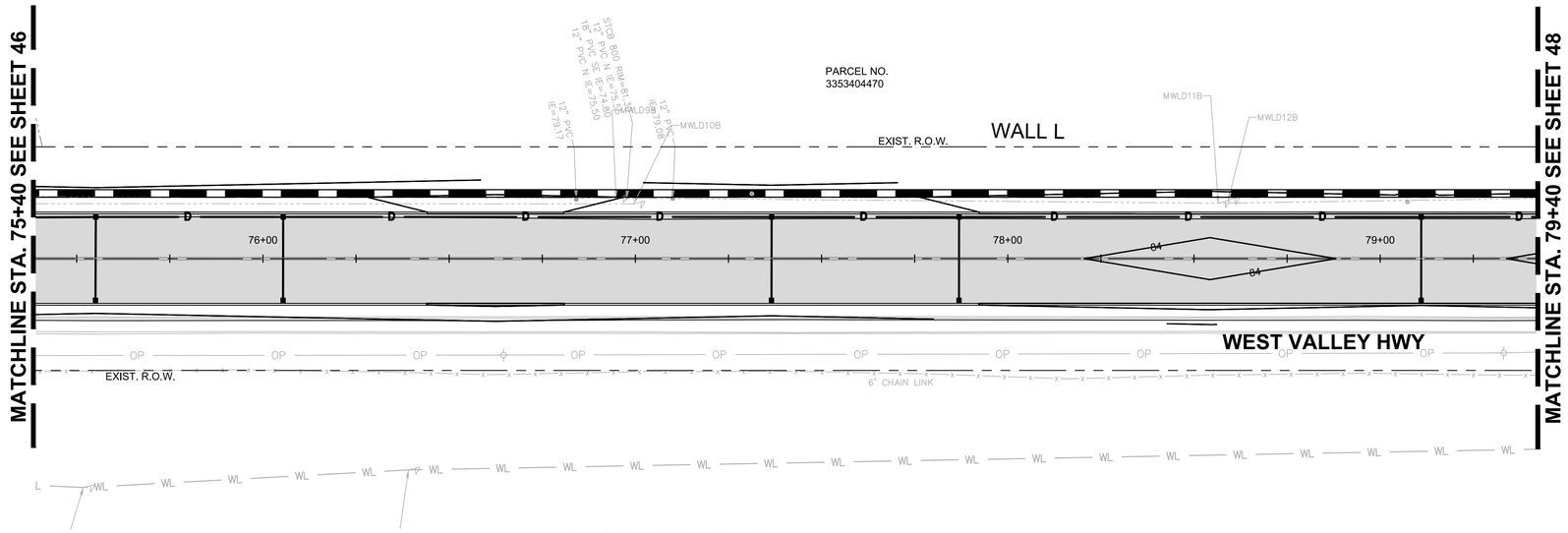
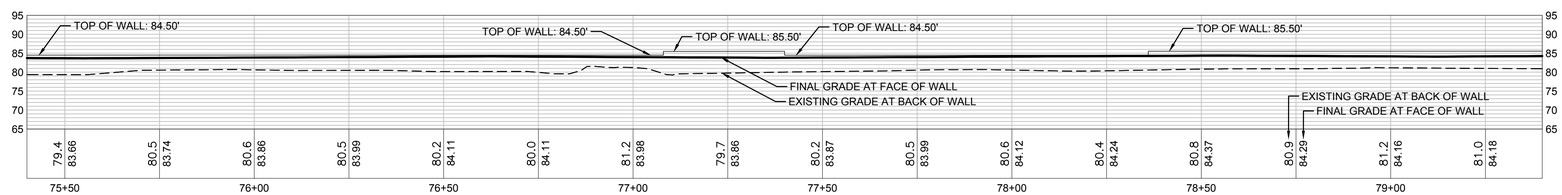


STA. 75+40 TO STA. 79+40
ROAD PLAN
SCALE: 1" = 20'



WALL L PROFILE
STA. 75+40 TO STA. 79+40
VERTICAL SCALE: 1" = 1'

GRAPHIC SCALE
0 10 20 40
1" = 20 FEET

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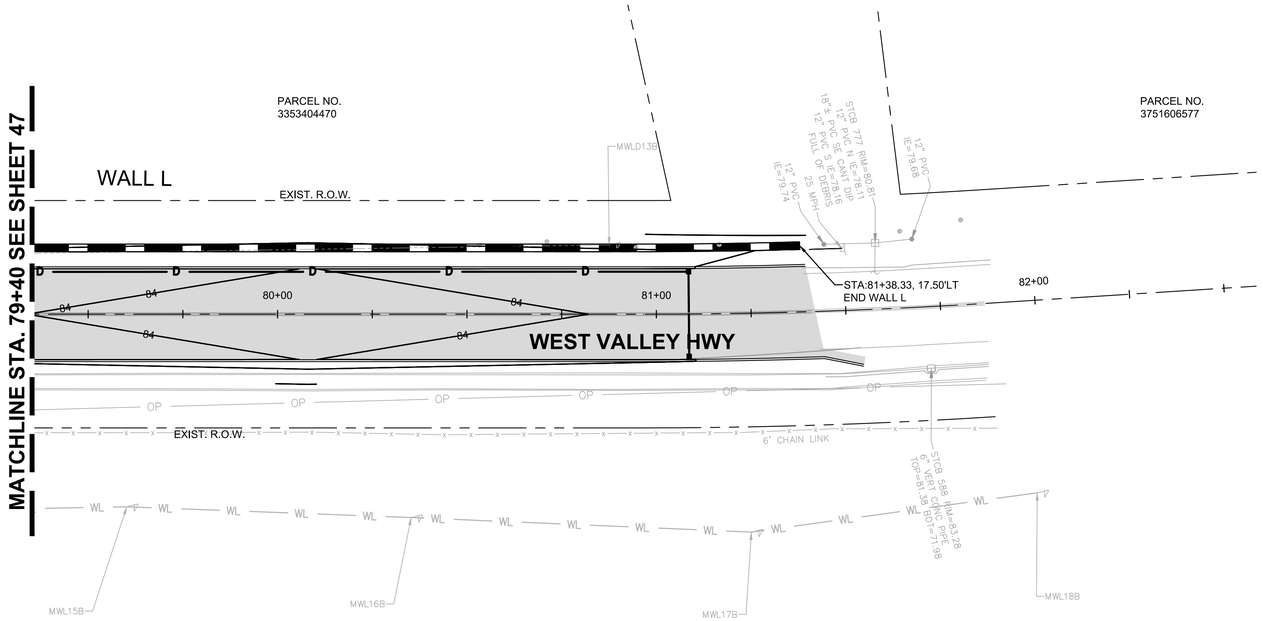
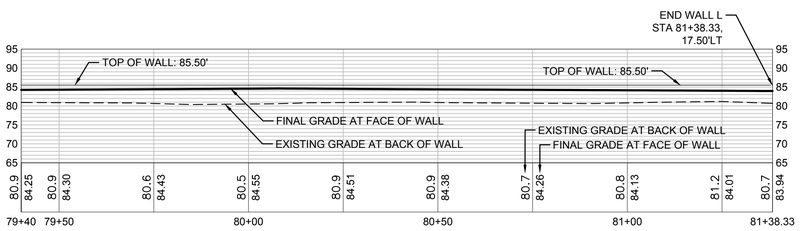


STA. 79+40 TO STA.82+25

SCALE: 1" = 20'



WALL L PROFILE
STA. 79+40 TO STA. 81+38.33

VERTICAL SCALE: 1" = 1'

GRAPHIC SCALE

0 10 20 40

1" = 20 FEET

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CHECKED A. BRAUN

APPROVED W. FIERST

SCALE AS NOTED

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