



CITY OF LAKE STEVENS

91ST AVE SE SIDEWALK IMPROVEMENTS PHASE 1

MAY 2024

CITY PROJECT NUMBER: 23010
CITY PERMIT #LUA2024-0070

MAYOR

BRETT GAILEY

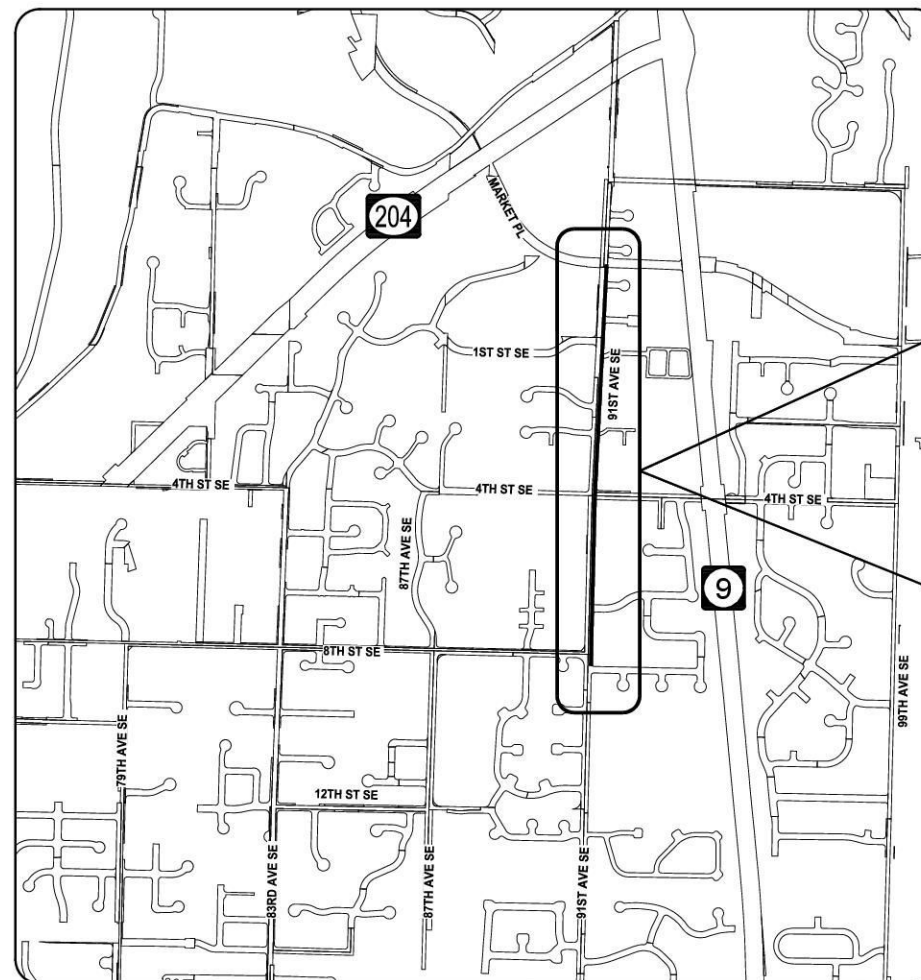
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KIM KLINKERS P.E., CITY ENGINEER

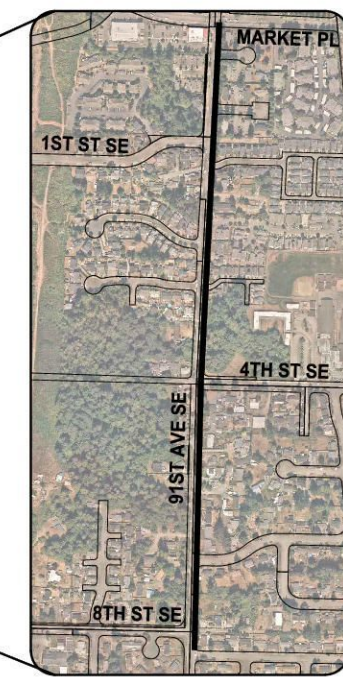
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VICINITY MAP
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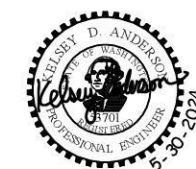
PROJECT LOCATION
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APPROVED FOR CONSTRUCTION:

Kimberly Klinkers May 28, 2024
KIMBERLY KLINKERS, P.E. DATE
CITY ENGINEER
CITY OF LAKE STEVENS

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EXISTING LEGEND

MIC	MONUMENT IN CASE	Ⓣ	TELEPHONE MANHOLE
MON	SURFACE MONUMENT	Ⓣ	TELEPHONE RISER
△	PK NAIL	TV	TV RISER
RC	REBAR & CAP	Ⓜ	GAS VALVE
⊗	SPOT SHOT (DESCRIBED)	⊗	WATER VALVE
□	CATCH BASIN	Ⓜ	WATER METER
⊙	STORM DRAIN MANHOLE	Ⓜ	FIRE HYDRANT
^	CULVERT	⊗	IRRIGATION CONTROL VALVE
○	SEWER MANHOLE	Ⓜ	UTILITY RISER (GENERIC/UNKNOWN)
⊖	POWER POLE	Ⓜ	SIGN
⊖	POWER POLE W/UNDERGROUND CONNECT	Ⓜ	MAILBOX (# OF BOXES)
⊖	POWER POLE WITH LUMINAIRE	Ⓜ	SHRUB
⊖	POWER POLE WITH LUMINAIRE AND UNDERGROUND CONNECT	Ⓜ	STUMP, DIAMETER
Ⓜ	POWER VAULT LID	Ⓜ	DECIDUOUS TREE, DIAMETER (# OF TRUNKS)
Ⓜ	POWER TRANSFORMER	Ⓜ	CONIFEROUS TREE, DIAMETER (# OF TRUNKS)
⊖	GUY POLE		
→	GUY ANCHOR		
Ⓜ	TRAFFIC SIGNAL WITH LUMINAIRE		
⊖	PEDESTRIAN SIGNAL		
Ⓜ	JUNCTION BOX		
⊖	STREET LIGHT (LUMINAIRE)		

— P —	PAINTED POWER
— T —	PAINTED TELEPHONE
— TV —	PAINTED TV
— W —	PAINTED WATER
— W —	RECORD WATER
— G —	PAINTED GAS
— OH —	OVERHEAD UTILITY LINE (GENERIC)
— OP —	OVERHEAD POWER LINE
— SD —	STORM
— SD —	RECORD STORM
— S —	PAINTED SEWER
— x — x — x —	FENCE
~~~~~	HEDGE (HEIGHT NOTED)
— — — — —	PAINTED STRIPE
— — — — —	PAINTED SKIP STRIPE
.....	RAISED-BUTTON SOLID STRIPE
— — — — —	EDGE OF PAVEMENT
— — — — —	FLOWLINE
— — — — —	CONTOUR
Ⓜ	CONCRETE
Ⓜ	GRAVEL
Ⓜ	GRASS
Ⓜ	ROCKERY
Ⓜ	BRICK
Ⓜ	METAL GRATE
AC	ASPHALT/CONCRETE
CHLK	CHAINLINK
DWY	DRIVEWAY

**PROPOSED LEGEND**

—	SIGN
Ⓜ	MAILBOX FOUNDATION PAD
— — — — —	CLEARING LIMITS
— X —	CHAIN LINK FENCE
Ⓜ	DETECTABLE WARNING SURFACE
Ⓜ	FULL DEPTH HMA
Ⓜ	HMA CL 3/8" PG 58H-22
Ⓜ	CEMENT CONCRETE PAVEMENT/SIDEWALK
Ⓜ	GRAVEL
Ⓜ	CSTC
Ⓜ	CSBC
— — — — —	SAWCUT LINE
— — — — —	CURB AND GUTTER
— — — — —	STORM DRAIN PIPE
Ⓜ	CATCH BASIN TYPE 1

**ABBREVIATIONS**

AC	ASPHALT CONCRETE	MAX	MAXIMUM
ACP	ASPHALT CONCRETE PAVEMENT	MIN	MINIMUM
ADA	AMERICANS WITH DISABILITIES ACT	MH	MANHOLE
AP	ANGLE POINT	MIC	MONUMENT IN CASE
APPROX	APPROXIMATE	MON	MONUMENT
BLDG	BUILDING	N	NORTH OR NORTHING
BOC	BACK OF CURB	NAVD	NORTH AMERICAN VERTICAL DATUM NUMBER
CB	CATCH BASIN	NO	NUMBER
CCP	CEMENT CONCRETE PAVEMENT	NTS	NOT TO SCALE
CDF	CONTROLLED DENSITY FILL	OC	ON CENTER
CHLK	CHAINLINK	OD	OUTSIDE DIAMETER
Ⓜ	CENTERLINE	PC	POINT OF CURVE
CL	CLASS	PCC	POINT OF COMPOUND CURVATURE
CO	CLEANOUT	PCCP	PERVIOUS CONCRETE PAVEMENT
COLS	CITY OF LAKE STEVENS	PI	POINT OF INTERSECTION
COL	COLUMN CONC CONCRETE	POB	POINT OF BEGINNING
CSBC	CRUSHED SURFACING BASE COURSE	POE	POINT OF ENDING
CSTC	CRUSHED SURFACING TOP COURSE	PRC	POINT OF REVERSE CURVATURE
DI	DUCTILE IRON	PT	POINT OF TANGENT
DIA	DIAMETER	PVC	POLYVINYL CHLORIDE OR
DW	DRIVEWAY		POINT OF VERTICAL CURVATURE
E	EAST OR EASTING	PVT	POINT OF VERTICAL TANGENT
EA	EACH	PVI	POINT OF VERTICAL INTERSECTION
EDDS	ENGINEERING DESIGN AND DEVELOPMENT STANDARDS	R	RADIUS
ELEV	ELEVATION	ROW	RIGHT OF WAY
EOP	EDGE OF PAVEMENT	RT	RIGHT
EW	EACH WAY EXIST EXISTING	S	SLOPE OR SOUTH
FF	FINISHED FLOOR	SD	STORM DRAIN
FL	FLOW LINE	SDMH	STORM DRAIN MANHOLE
FO	FIBER OPTIC	SE	SOUTHEAST
FOC	FACE OF CURB	SHT	SHEET
HMA	HOT MIX ASPHALT	SQ	SQUARE
HORIZ	HORIZONTAL	SS	SANITARY SEWER
HP	HIGH POINT	SSMH	SANITARY SEWER MANHOLE
ID	INSIDE DIAMETER	ST	STREET
IE	INVERT ELEVATION	STA	STATION
IN	INCH/INCHES	STD	STANDARD
JB	JUNCTION BOX	STCR	STRUCTURE
L	LENGTH LT LEFT	SW	SOUTHWEST
LF	LINEAR FEET	TYP	TYPICAL
LP	LOW POINT	VERT	VERTICAL
		W	WEST

NO.	DATE	BY	APPR	REVISIONS

Approved By		91AK020200INDX.dwg
ENGINEERING MANAGER	DATE	FILENAME
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PROJECT ENGINEER	DATE	DESIGNED BY
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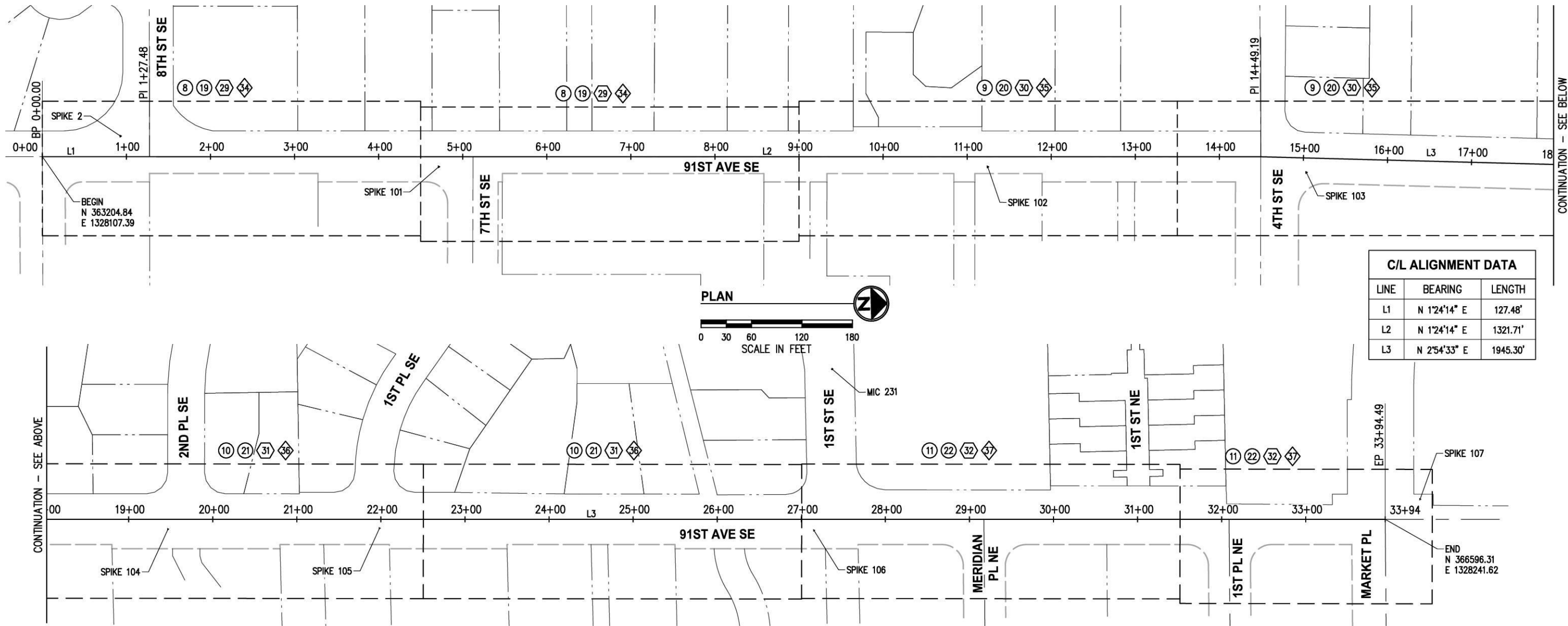
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**CITY OF LAKE STEVENS  
 91ST AVE SE SIDEWALK  
 IMPROVEMENTS PHASE 1**

GENERAL LEGEND & ABBREVIATIONS	
KPG PROJECT No. 91AK020200	SHT <u>2</u> OF <u>42</u>

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C/L ALIGNMENT DATA		
LINE	BEARING	LENGTH
L1	N 1°24'14" E	127.48'
L2	N 1°24'14" E	1321.71'
L3	N 2°54'33" E	1945.30'

**SHEET INDEX LEGEND**

- SITE PREPARATION AND TESC PLANS
- ROADWAY PLAN
- STORM DRAINAGE PLAN
- LANDSCAPE RESTORATION PLAN

CONTROL POINT LIST				
PT #	DESCRIPTION	NORTHING	EASTING	ELEVATION
100	SPIKE	363365.74	1327571.09	400.84'
101	SPIKE	363675.89	1328130.93	389.16'
102	SPIKE	364328.59	1328147.01	394.05'
103	SPIKE	364707.29	1328162.91	390.19'
104	SPIKE	365149.81	1328179.85	385.90'
105	SPIKE	365401.12	1328191.54	380.98'
106	SPIKE	365917.05	1328220.29	367.85'
107	SPIKE	366638.93	1328219.87	369.57'
108	SPIKE	366628.22	1328523.13	368.13'

**NOTES**

- THE PURPOSE OF THIS TOPOGRAPHIC SURVEY IS FOR CIVIL ENGINEERING DESIGN. THIS IS NOT A BOUNDARY SURVEY. SOURCES OF BOUNDARY INFORMATION AS SHOWN INCLUDE FIELD-TIED MONUMENTATION, PLATS, COUNTY RECORDS OF SURVEY, AND AUDITOR INDEXING INFORMATION.
- THE LOCATIONS OF EXISTING UNDERGROUND UTILITY SYSTEMS, AS SHOWN HEREON, ARE TAKEN FROM UTILITY LOCATE PAINT MARKS OR AS-BUILT PLANS AND ARE SHOWN IN AN APPROXIMATE WAY ONLY.  
  
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 WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES. ALL LOCATOR SERVICES SHOULD BE CONTACTED PRIOR TO ANY CONSTRUCTION OR SUBSURFACE EXPLORATION. CALL 1-800-424-5555.
- FIELD SURVEY: KPG, MARCH 2024. LICENSEE MICHAEL R. BOWEN, P.L.S. NO. 29294.
- CONTOUR INTERVAL = 1 FOOT, ±0.5 FOOT PER NATIONAL MAPPING STANDARDS. CONTOURS DERIVED FROM DIRECT FIELD OBSERVATIONS.
- STORM AND SEWER CONNECTIONS HAVE BEEN DRAWN FROM CENTER OF LID TO CENTER OF LID.

**HORIZONTAL AND VERTICAL DATUM**

HORIZONTAL DATUM: NAD 83/11  
 VERTICAL DATUM: NAVD 88  
 HORIZONTAL AND VERTICAL DATUMS ESTABLISHED BY RTK GPS OBSERVATION UTILIZING WSRN (WASHINGTON STATE REFERENCE NETWORK) WITH CHECKS TO WSDOT CONTROL POINT VERNON

NO.	DATE	BY	APPR.	REVISIONS

Approved By		91AK020200INDX.dwg
ENGINEERING MANAGER	DATE	FILENAME DPY 4/24
PROJECT MANAGER	DATE	DESIGNED BY AC 4/24
PROJECT ENGINEER	DATE	DRAWN BY KA 4/24
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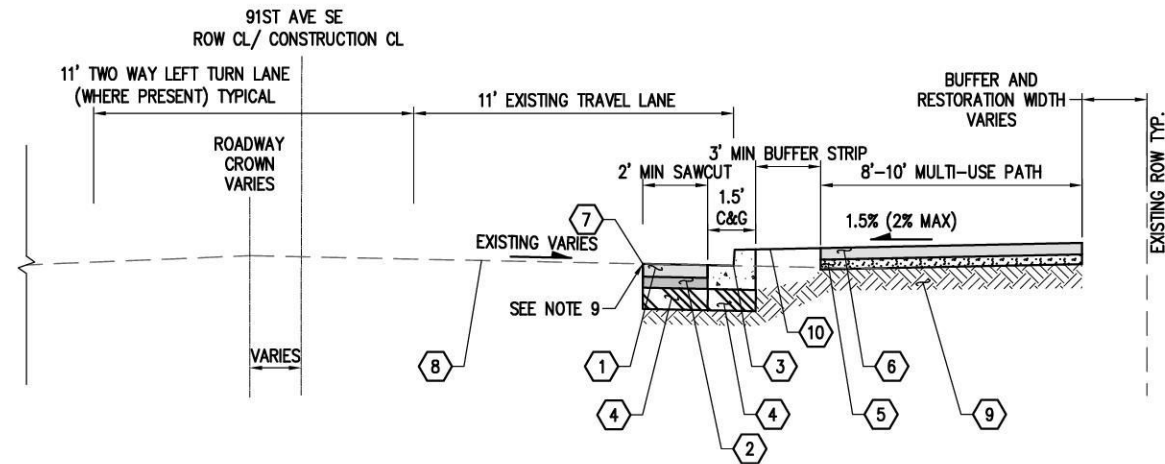
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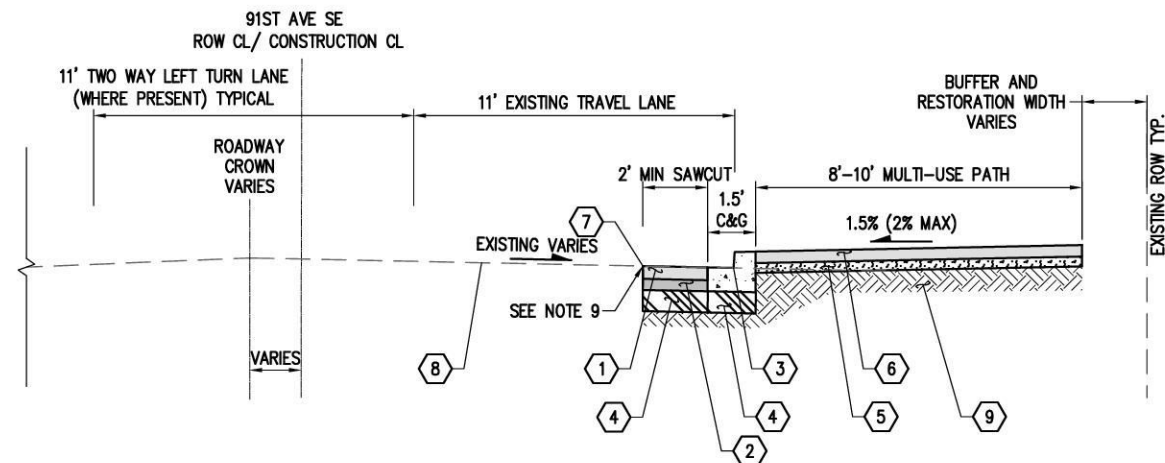
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GENERAL ALIGNMENT & SURVEY CONTROL PLAN	
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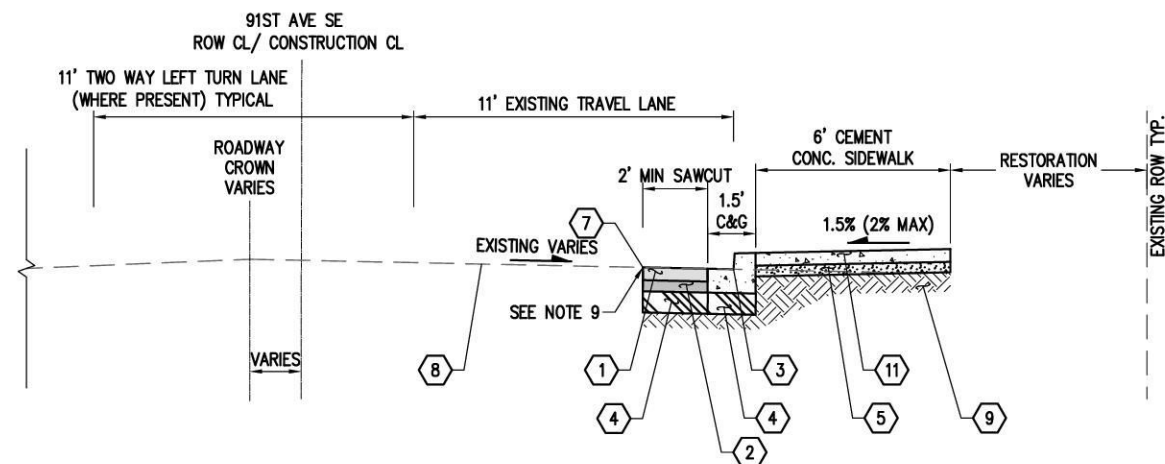
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**91ST AVE SE TYPICAL SECTION A**  
 APPROXIMATE STATION: 1+67 TO 4+74, 5+59 TO 9+22, 12+04 TO 13+31, 19+81 TO 20+59, 21+47 TO 24+27, 25+71 TO 27+29, NTS



**91ST AVE SE TYPICAL SECTION B**  
 APPROXIMATE STATION: 0+67 TO 1+67, 9+22 TO 12+04, 13+31 TO 14+26, 20+59 TO 21+47, 24+27 TO 25+71, 27+29 TO 29+05, 29+34 TO 31+95, 32+24 TO 33+57, NTS



**91ST AVE SE TYPICAL SECTION C**  
 APPROXIMATE STATION: 18+51 TO 19+81, NTS

**TYPICAL ROADWAY SECTION NOTES**

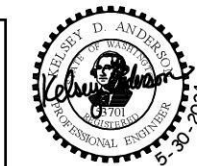
- SUBGRADE PREPARATION SHALL BE IN ACCORDANCE WITH SECTION 2-06 OF THE WSDOT STANDARD SPECIFICATIONS.
- ADDITIONAL FILL MATERIAL REQUIRED FOR CONSTRUCTION SHALL BE GRAVEL BORROW MEETING THE REQUIREMENTS OF SECTION 9-03.14 OF THE WSDOT STANDARD SPECIFICATIONS. FILL MATERIAL SHALL BE COMPACTED TO 95% MODIFIED PROCTOR DENSITY, AS DETERMINED BY ASTM D1557.
- EMBANKMENTS SHALL BE CONSTRUCTED PER SECTION 2-03 OF THE STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.
- IF UNSUITABLE SUBGRADE IS ENCOUNTERED, THE CONTRACTOR SHALL CAREFULLY OVER-EXCAVATE TO A MAXIMUM DEPTH OF 12" BELOW THE NEW PAVEMENT SECTION AND REPLACE WITH CSBC OR AS DIRECTED BY THE ENGINEER.
- ACCESS TO ADJACENT PROPERTIES MUST BE MAINTAINED AT ALL TIMES UNLESS PRIOR ARRANGEMENTS HAVE BEEN MADE AND APPROVED BY THE ENGINEER.
- ROADWAY RIGHT OF WAY LIMITS VARY. SEE ROADWAY PLANS, SHEETS 19-22.
- GENERAL TYPICAL SECTIONS AND RESTORATION SHOWN. FOR NON-TYPICAL SECTIONS AND SPECIFIC RESTORATION TYPE AND LIMITS, SEE ROADWAY PLANS, SHEETS 19-22.
- BUFFER STRIP, MULTI-USE PATH, AND SIDEWALK WIDTHS VARY AT CURB RAMPS AND LOCATIONS OF CROSSINGS. SEE ROADWAY PLANS, SHEETS 19-22, AND RAMP GRADING PLANS, SHEETS 23-28.
- WHERE NEW ASPHALT JOINS EXISTING, THE EXISTING ASPHALT SHALL BE CUT TO A NEAT VERTICAL EDGE AND TACKED AND SEALED IN ACCORDANCE WITH THE MOST CURRENT EDITION OF THE WSDOT STANDARD SPECIFICATIONS.
- EXISTING PAVEMENT DEPTHS AND WIDTHS VARY. PER COLLECTED POTHOLE DATA ALONG THE CORRIDOR, THE PAVEMENT DEPTHS VARY FROM 5"-10" DEPTH. CONTRACTOR TO VERIFY IN FIELD.

**MATERIAL CODE**

1	3" HMA CL 3/8" PG 58H-22 WEARING COURSE
2	3" HMA CL 1/2" PG 58H-22
3	CEMENT CONC. TRAFFIC CURB & GUTTER PER COLS EDSS STD PLAN 6-220.
4	6" CSBC
5	3" CSTC
6	3.5" HMA CL 3/8" PG 58H-22 PATH
7	FULL DEPTH SAWCUT LINE
8	EXIST ROADWAY, SEE TYPICAL ROADWAY SECTION NOTE 10.
9	COMPACTED SUBGRADE. ADDITIONAL FILL MATERIAL REQUIRED FOR CONSTRUCTION SHALL BE GRAVEL BORROW INCL. HAUL. SEE NOTE 2.
10	FOR BUFFER STRIP AREA SEE LANDSCAPE RESTORATION PLAN AND DETAIL SHEETS 34-38.
11	4" CEMENT CONC. SIDEWALK PAVEMENT

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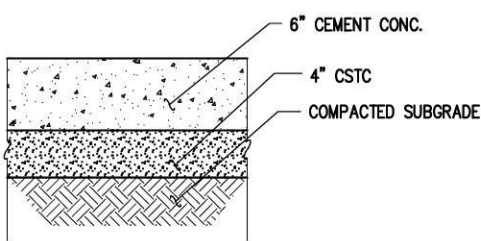
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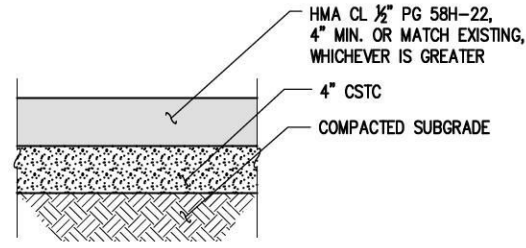


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 91ST AVE SE SIDEWALK  
 IMPROVEMENTS PHASE 1**

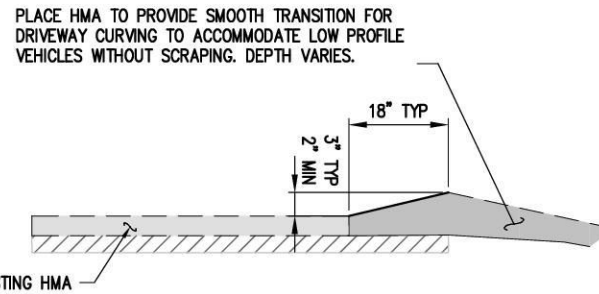
TYPICAL SECTIONS	
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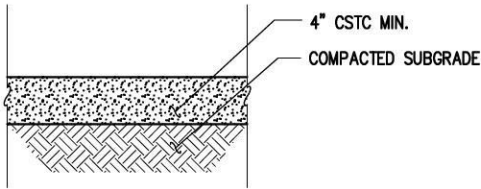
**CEMENT CONC. DRIVEWAY SECTION**  
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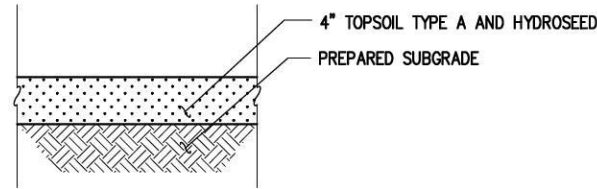
**HMA DRIVEWAY SECTION**  
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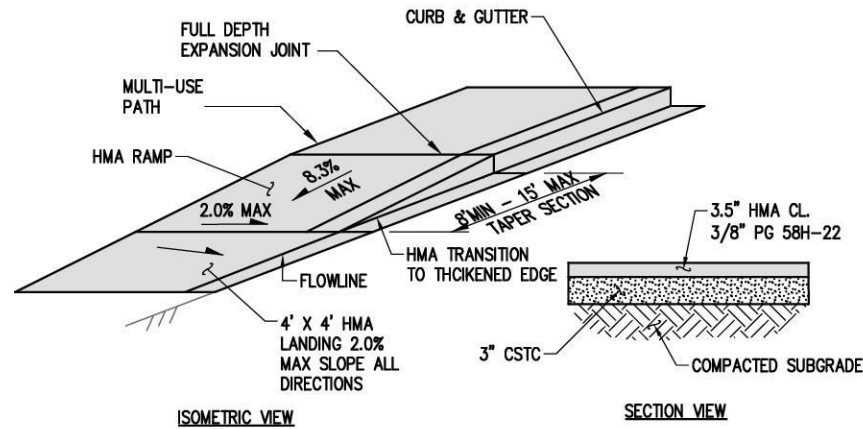
**HMA THICKENED EDGE DETAIL**  
NTS



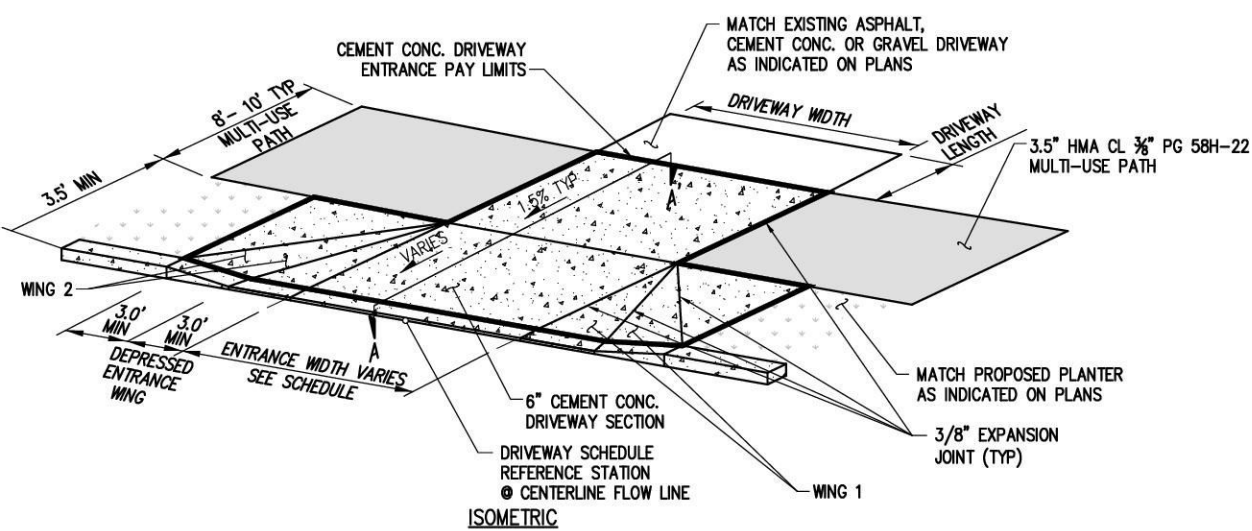
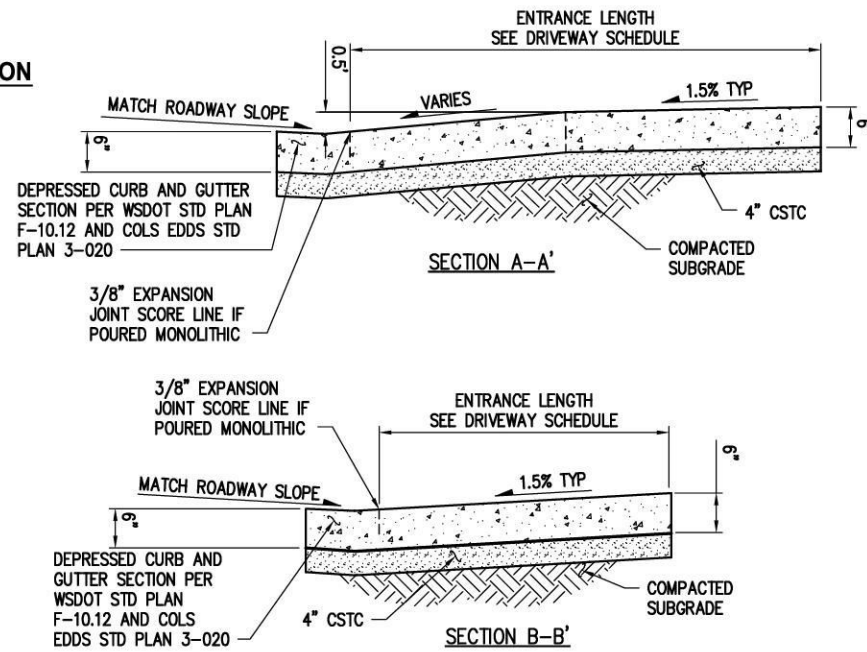
**GRAVEL RESTORATION SECTION**  
NTS



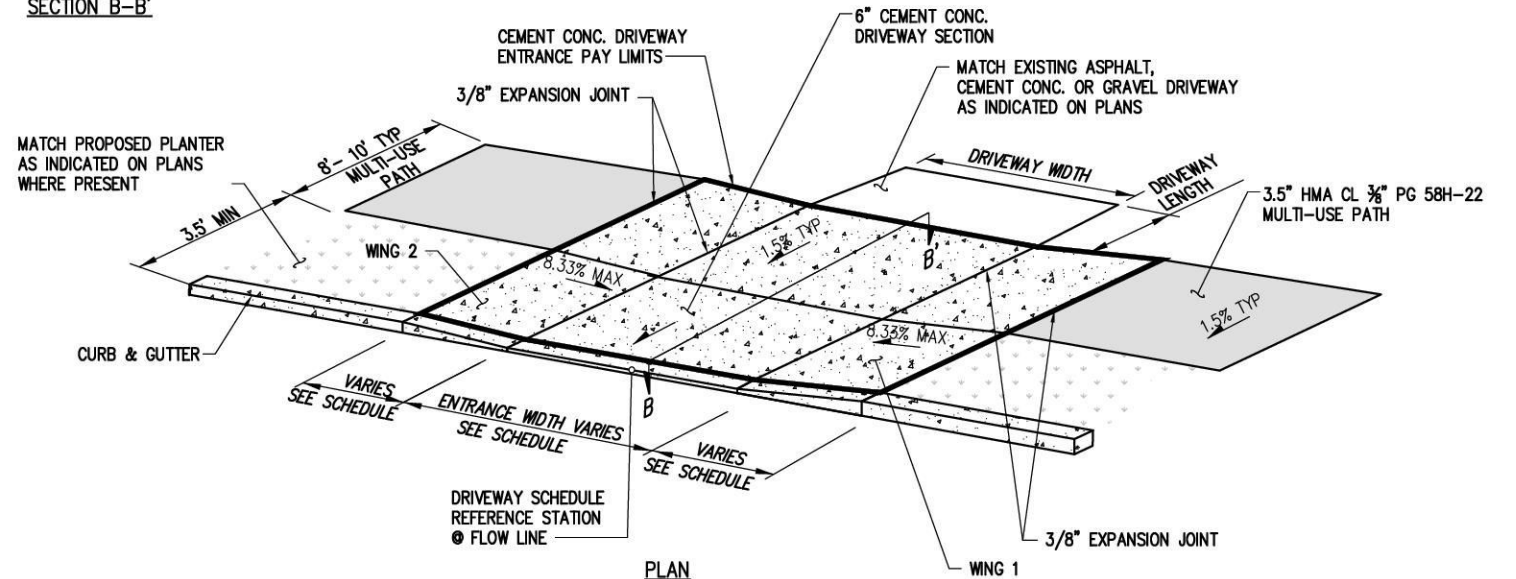
**TOPSOIL AND SEED RESTORATION SECTION**  
NTS



**HMA TRANSITION RAMP DETAIL**  
NTS



**CEMENT CONC. DRIVEWAY ENTRANCE TYPE 1**  
NTS



**CEMENT CONC. DRIVEWAY ENTRANCE TYPE 2**  
NTS

**DRIVEWAY NOTES**

1. ALL JOINTS SHALL BE CLEANED AND EDGED.
2. CEMENT CONCRETE DRIVEWAY ENTRANCES SHALL BE 6" THICK AIR ENTRAINED CLASS 4000.
3. CONCRETE PAVEMENT SHALL BE BRUSHED TRANSVERSELY WITH A FIBER OR WIRE BRUSH OF A TYPE APPROVED BY THE ENGINEER.
4. 3/8" EXPANSION JOINTS SHALL BE PLACED AT BACK, SIDES, AND FRONT. MAXIMUM EXPANSION JOINT SPACING IS 10' CENTER TO CENTER PER COLS EDDS STD PLAN 6-114.
5. DRIVEWAY SURFACE SHALL RECEIVE A LIGHT BRUSH FINISH TRANSVERSE TO TRAFFIC FLOW.
6. SEE DRIVEWAY SCHEDULE, THIS SHEET, FOR DIMENSIONS.

**DRIVEWAY SCHEDULE**

DWY #	CL STATION AT FLOWLINE	OFFSET	DWY TYPE	ENTRANCE WIDTH	ENTRANCE LENGTH	DWY LENGTH	WING 1	WING 2
1	1+02.85	7.39' RT	1	14.0'	18.5'	6.0'	7.0'	7.0'
2	1+32.93	7.32' RT	1	10.0'	11.5'	16.0'	6.0'	6.0'
3	1+56.93	7.27' RT	2	10.0'	11.5'	10.0'	6.0'	6.0'
3A	1+98.82	7.19' RT	1	10.0'	11.5'	12.0'	6.0'	6.0'
4	6+89.12	7.07' RT	1	16.0'	11.5'	8.0'	6.0'	6.0'
5	7+23.12	7.14' RT	1	20.0'	11.5'	9.0'	6.0'	6.0'
6	8+38.31	7.91' RT	1	13.0'	11.5'	2.0'	6.0'	6.0'
7	8+70.36	8.17' RT	1	13.0'	11.5'	5.0'	6.0'	6.0'
8	9+43.93	8.78' RT	2	17.0'	10.5'	2.0'	7.0'	7.0'
9	10+46.11	9.38' RT	2	12.0'	9.5'	10.0'	6.0'	7.0'
10	10+95.53	9.64' RT	2	12.0'	9.5'	4.0'	7.0'	7.0'
11	11+81.47	10.13' RT	2	32.0'	9.5'	11.0'	7.0'	7.0'
12	12+49.45	10.86' RT	1	14.0'	12.5'	12.0'	6.0'	6.0'
13	12+87.45	11.27' RT	1	10.0'	12.5'	12.0'	6.0'	6.0'
14	13+48.52	11.93' RT	2	9.5'	8.5'	9.5'	6.0'	6.0'
15	19+68.90	19.50' RT	1	25.0'	15.5'	0.0'	6.0'	6.0'
16	21+21.08	6.82' RT	1	22.0'	12.5'	8.0'	6.0'	N/A
16A	21+39.09	6+91 RT	1	14.0'	12.5'	8.0'	N/A	6.0'
17	23+05.88	7.87' RT	2	28.0'	12.5'	12.4'	6.0'	6.0'
18	24+57.70	7.83' RT	2	12.0'	10.5'	11.7'	7.0'	7.0'
19	24+99.20	7.64' RT	2	15.0'	10.5'	11.9'	7.0'	7.0'
20	25+45.70	7.44' RT	2	12.0'	10.5'	6.0'	7.0'	7.0'
21	26+14.18	7.96 RT	2	23.0'	13.5'	12.0'	6.0'	6.0'
22	27+41.99	9.26' RT	1	15.0'	13.5'	12.0'	6.0'	6.0'

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91ST AVE SE SIDEWALK  
IMPROVEMENTS PHASE 1**

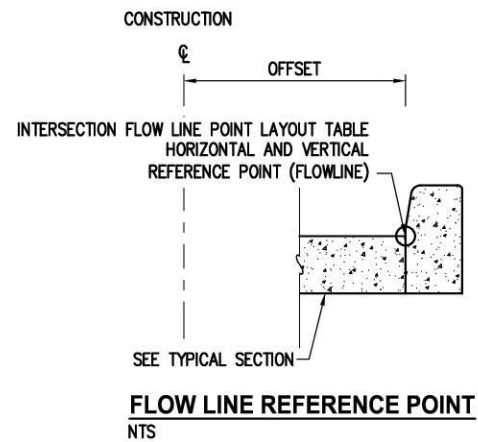
TYPICAL DETAILS DET01	
KPG PROJECT No. 91AK020200	SHT 5 OF 42

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FLOW LINE POINTS				
#	STATION	OFFSET	FL ELEV	DESCRIPTION
01	0+77.35	15.77' RT	400.41	PC, R=10.0'
02	0+85.49	11.58' RT	400.49	PT
03	0+93.60	7.41' RT	400.54	PC, R=10.0'
04	2+88.34	7.00' RT	396.56	AP
08	7+55.00	7.21' RT	386.34	AP
09	9+64.78	8.96' RT	392.22	AP
10	11+74.57	10.06' RT	394.75	AP
14	19+44.33	16.66' RT	385.70	PC, R=10.0'
15	19+51.31	19.50' RT	385.64	PT
16	20+66.77	19.50' RT	385.30	PC, R=10.0'
17	20+73.58	16.82' RT	385.25	PT
18	20+81.60	9.35' RT	385.18	PC, R=10.0'
19	20+88.47	6.66' RT	385.11	PT
20	22+04.49	7.24' RT	380.86	AP
21	23+66.10	8.24' RT	373.26	AP
22	25+57.61	7.38' RT	370.52	AP
23	27+73.73	9.58' RT	367.72	AP
28	29+96.30	17.62' RT	368.69	AP
29	30+46.73	18.45' RT	368.65	AP
30	31+15.84	18.93' RT	368.50	AP

**LEGEND**

PC: POINT OF CURVATURE  
 PT: POINT OF TANGENCY  
 PCC: POINT OF COMPOUND CURVATURE  
 AP: ANGLE POINT



NO.	DATE	BY	APPR.	REVISIONS

Approved By

ENGINEERING MANAGER DATE  
 PROJECT MANAGER DATE  
 PROJECT ENGINEER DATE

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 FILENAME  
 DPY 4/24  
 DESIGNED BY DATE  
 AC 4/24  
 DRAWN BY DATE  
 KA 4/24  
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CITY OF LAKE STEVENS  
 91ST AVE SE SIDEWALK  
 IMPROVEMENTS PHASE 1

TYPICAL DETAILS  
 DET02

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**LOCATION #1 - 7TH ST SE**  
NTS



**LOCATION #2 - 2ND PL SE**  
NTS



**LOCATION #3 - STA 23+00**  
NTS



**LOCATION #4 - STA 24+50**  
NTS



**LOCATION #5 - 1ST ST SE**  
NTS



**LOCATION #6 - MERIDIAN PL NE**  
NTS

**CONSTRUCTION NOTES**

- ① INSTALL COLLECTION BOX UNIT (CBU) FOUNDATION PAD PER COLS EDDS STD PLAN 6-140. INSTALL AND MOUNT CBU WITH OVERSIGHT BY USPS. COORDINATE PER SPECIFICATIONS.
- ② EXISTING CBU TO REMAIN.
- ③ EXISTING CBU TO BE RELOCATED TO PROPOSED LOCATION AT 1ST ST SE. CONTRACTOR TO REMOVE AND REINSTALL CBU WITH OVERSIGHT BY USPS. COORDINATE PER SPECIFICATIONS. NO REMOVAL AND RELOCATION PRIOR TO ACCEPTANCE BY USPS.
- ④ EXISTING CBU TO BE RELOCATED TO PROPOSED LOCATION AT MERIDIAN PL NE. CONTRACTOR TO REMOVE AND REINSTALL CBU WITH OVERSIGHT BY USPS. COORDINATE PER SPECIFICATIONS. NO REMOVAL AND RELOCATION PRIOR TO ACCEPTANCE BY USPS.
- ⑤ REMOVE AND RESET BOLLARD.
- ⑥ EXISTING CBU TO BE RELOCATED TO PROPOSED LOCATION ALONG 91ST AVE SE IN NEW BUFFER STRIP. THE PROPOSED BUFFER STRIP ALIGNMENT AND LOCATION IS NOT SHOWN FOR CLARITY, HOWEVER CBU RELOCATION IS APPROX. 6 LF FROM EXISTING POSITION. SEE ROADWAY PLANS FOR NEW ROADWAY IMPROVEMENTS. CONTRACTOR TO REMOVE AND REINSTALL CBU WITH OVERSIGHT BY USPS. COORDINATE PER SPECIFICATIONS. NO REMOVAL AND RELOCATION PRIOR TO ACCEPTANCE BY USPS.

NO.	DATE	BY	APPR.	REVISIONS

Approved By		91AK020200DET-TYP.dwg
ENGINEERING MANAGER	DATE	DPY 4/24
PROJECT MANAGER	DATE	AC 4/24
PROJECT ENGINEER	DATE	KA 4/24
	DATE	CHECKED BY



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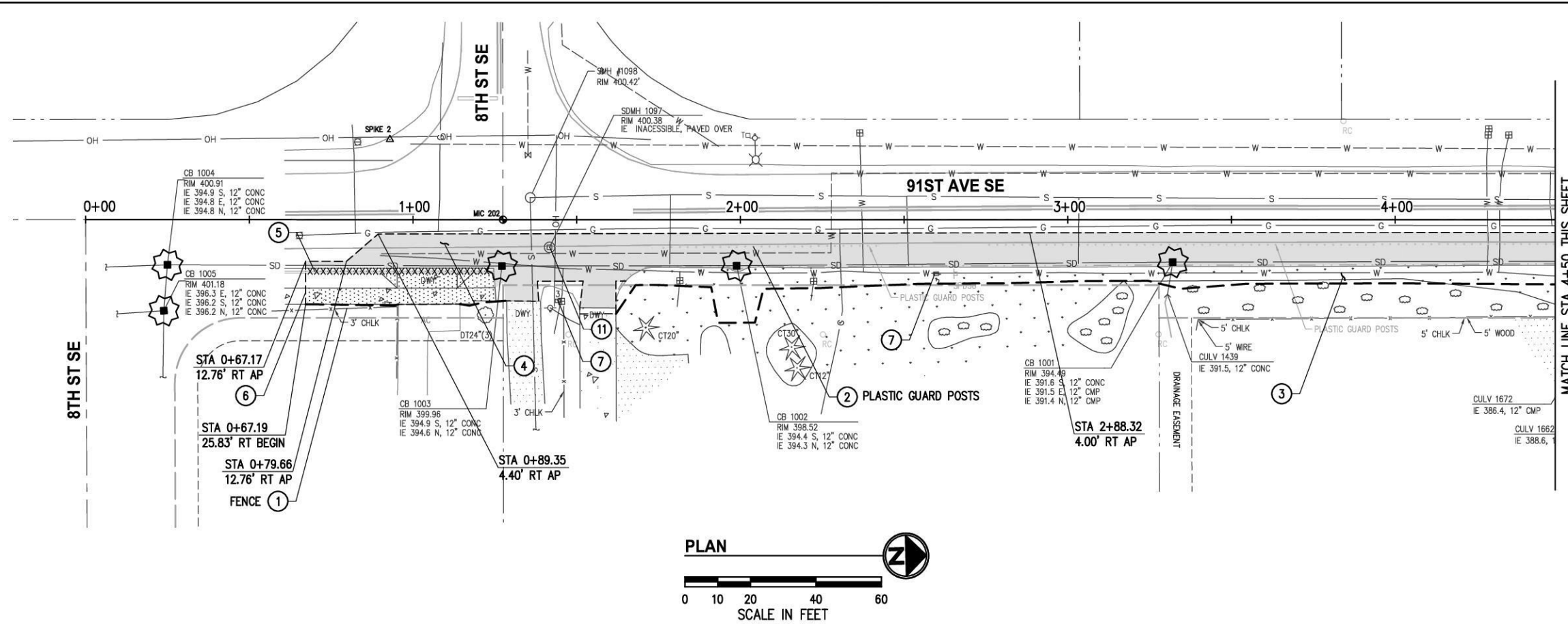
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CITY OF LAKE STEVENS  
91ST AVE SE SIDEWALK IMPROVEMENTS PHASE 1

MAILBOX RELOCATION PLAN	
KPG PROJECT No. 91AK020200	SHT 7 OF 42

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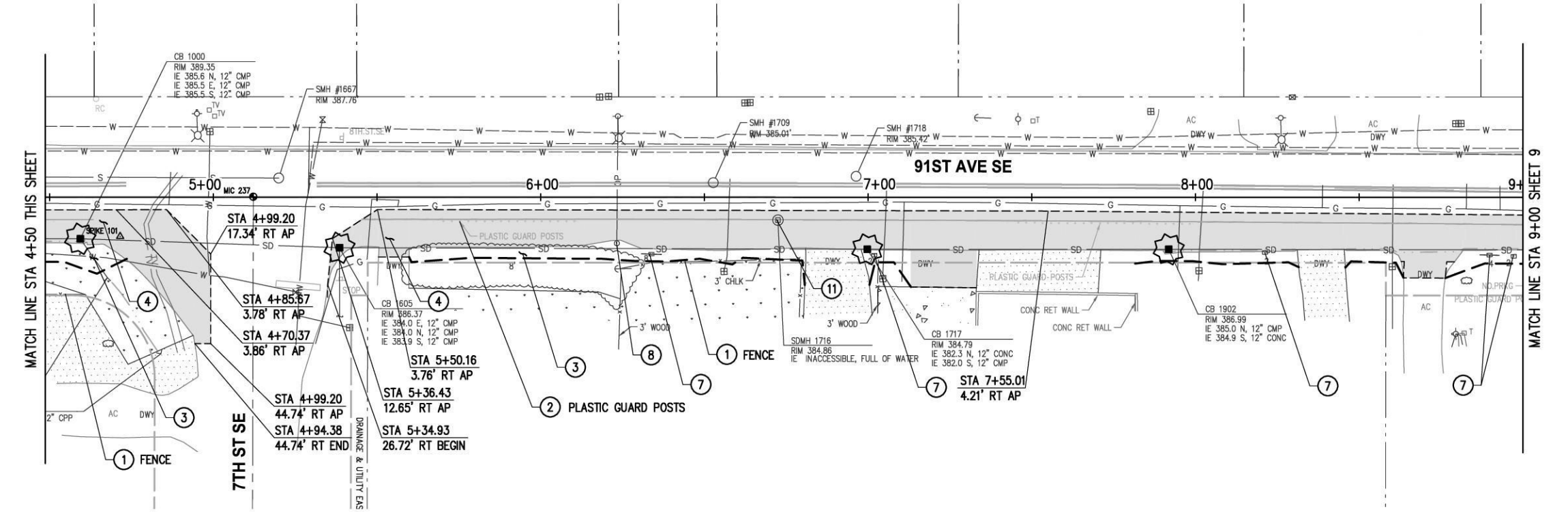
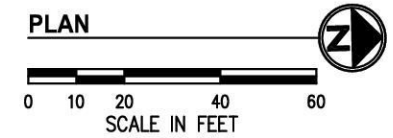


**GENERAL NOTES**

1. INLET PROTECTION SHALL BE PLACED IN ALL EXISTING CATCH BASINS AS SHOWN ON THE PLAN, AND IN NEW CATCH BASINS AT THE TIME OF INSTALLATION UNTIL PROJECT IS COMPLETE.
2. PRESERVE AND PROTECT ALL EXISTING UTILITIES TO REMAIN.
3. PRUNE EXISTING TREES TO REMAIN AS REQUIRED TO PROVIDE MIN. 7' CLEARANCE ABOVE SIDEWALKS. ALL PRUNING ACTIVITIES SHALL BE PERFORMED BY A LICENSED LANDSCAPE CONTRACTOR AND SHALL BE APPROVED BY THE ENGINEER PRIOR TO START OF WORK. FOR TREES ON PRIVATE PROPERTY, COORDINATE WITH CITY.
4. FOR ALL MAILBOX RELOCATION LOCATIONS, SEE SHEET 7. CONTRACTOR TO PROVIDE SCHEDULE AND COORDINATION WITH USPS PRIOR TO ANY EXISTING MAILBOX REMOVAL TO ELIMINATE DISRUPTION OF MAIL SERVICE. SEE SPECIFICATIONS.

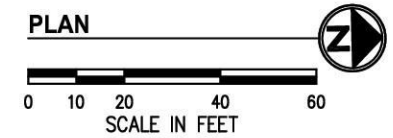
**CONSTRUCTION NOTES**

1. PROTECT IN PLACE.
2. REMOVE.
3. CLEAR AND GRUB EXISTING VEGETATION AS NECESSARY TO INSTALL PROPOSED IMPROVEMENTS.
4. SAWCUT AND REMOVE EXISTING ASPHALT PAVEMENT.
5. SAWCUT AND REMOVE CURB AND GUTTER.
6. SAWCUT AND REMOVE CEMENT CONCRETE SIDEWALK TO THE NEAREST JOINT.
7. REMOVE MAILBOX. SEE GENERAL NOTE 4, THIS SHEET, AND MAILBOX RELOCATION PLAN, SHEET 7 AND SPECIFICATIONS.
8. UTILITY POLE TO BE RELOCATED BY OTHERS.
11. REMOVE AND ABANDON EXISTING LAKE STEVENS SEWER DISTRICT (LSSD) ABANDONED FORCE MAIN SEWER MANHOLE. PLUG AND FILL MANHOLE WITH PEA GRAVEL UP TO PROPOSED TYPICAL SECTION SUBGRADE. REMOVE LID AND FRAME BELOW GRADE IN CONFLICT WITH IMPROVEMENTS.



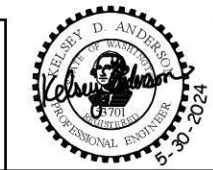
**LEGEND**

- REMOVE CONCRETE
- REMOVE PAVEMENT
- CURB AND GUTTER REMOVAL
- INLET PROTECTION
- REMOVE CONIFEROUS TREE
- REMOVE DECIDUOUS TREE
- CLEARING LIMITS
- SAWCUT LINE



NO.	DATE	BY	APPR.	REVISIONS

Approved By		91AK020200SP01.dwg
ENGINEERING MANAGER	DATE	DPY 4/24
DESIGNED BY	DATE	AC 4/24
PROJECT MANAGER	DATE	KA 4/24
PROJECT ENGINEER	DATE	CHECKED BY DATE



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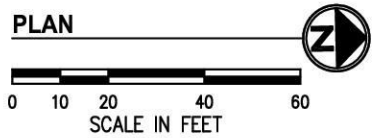
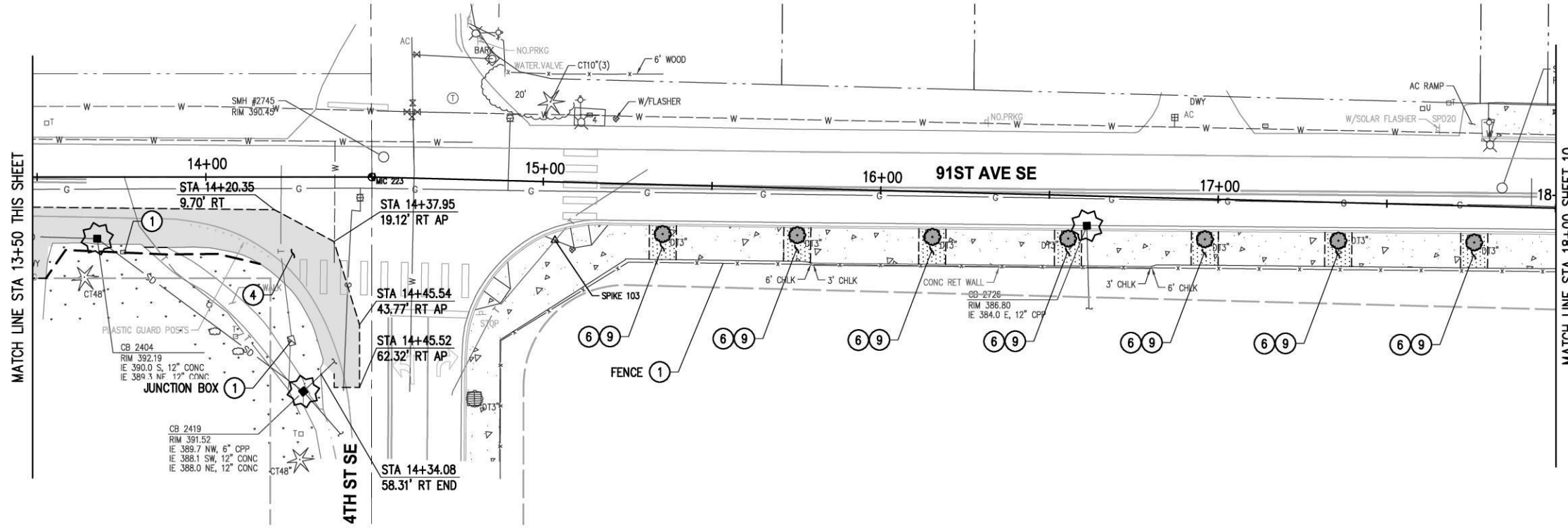
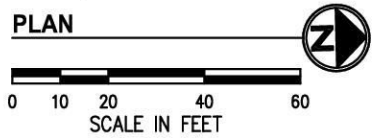
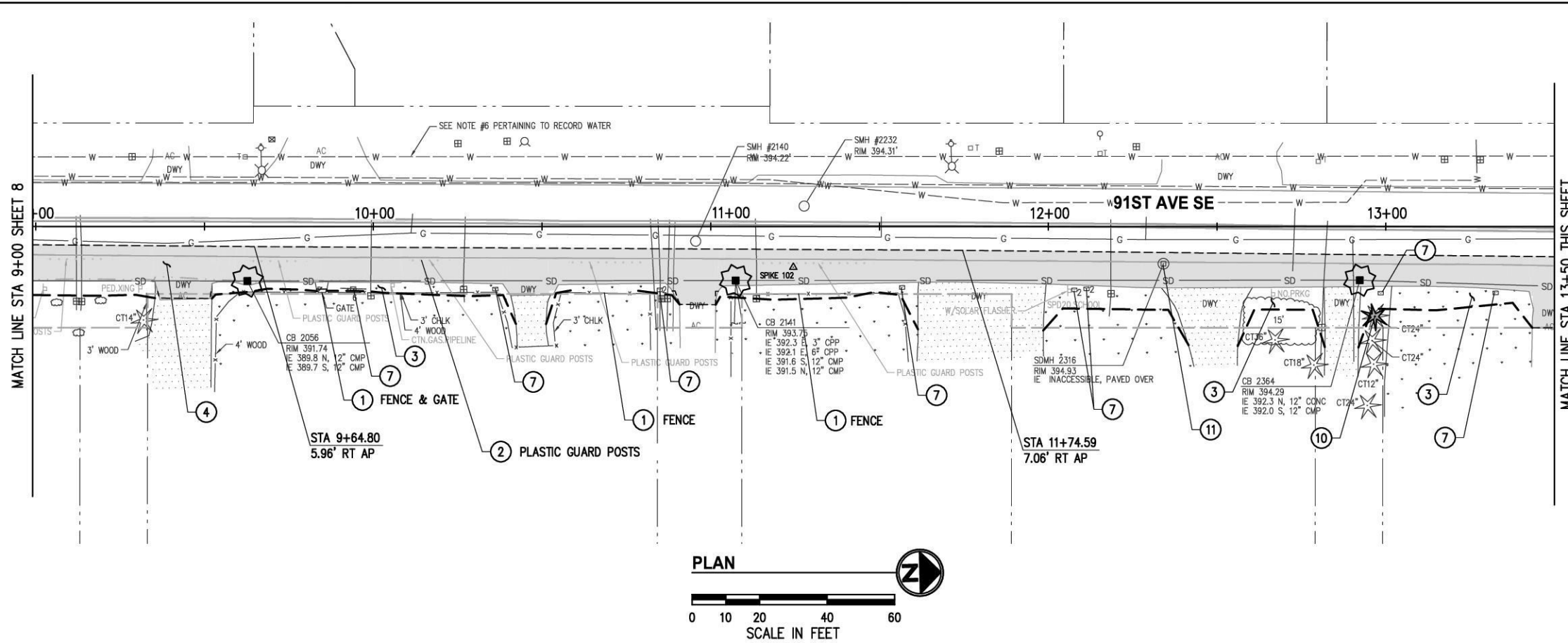
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**CITY OF LAKE STEVENS**  
**91ST AVE SE SIDEWALK IMPROVEMENTS PHASE 1**

SITE PREPARATION & TESC PLAN	
STA 0+00 TO STA 9+00	
KPG PROJECT No. 91AK020200	SHT 8 OF 42

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**GENERAL NOTES**

1. INLET PROTECTION SHALL BE PLACED IN ALL EXISTING CATCH BASINS AS SHOWN ON THE PLAN, AND IN NEW CATCH BASINS AT THE TIME OF INSTALLATION UNTIL PROJECT IS COMPLETE.
2. PRESERVE AND PROTECT ALL EXISTING UTILITIES TO REMAIN.
3. PRUNE EXISTING TREES TO REMAIN AS REQUIRED TO PROVIDE MIN. 7' CLEARANCE ABOVE SIDEWALKS. ALL PRUNING ACTIVITIES SHALL BE PERFORMED BY A LICENSED LANDSCAPE CONTRACTOR AND SHALL BE APPROVED BY THE ENGINEER PRIOR TO START OF WORK. FOR TREES ON PRIVATE PROPERTY, COORDINATE WITH CITY.
4. FOR ALL MAILBOX RELOCATION LOCATIONS, SEE SHEET 7. CONTRACTOR TO PROVIDE SCHEDULE AND COORDINATION WITH USPS PRIOR TO ANY EXISTING MAILBOX REMOVAL TO ELIMINATE DISRUPTION OF MAIL SERVICE. SEE SPECIFICATIONS.

**CONSTRUCTION NOTES**

- ① PROTECT IN PLACE.
- ② REMOVE.
- ③ CLEAR AND GRUB EXISTING VEGETATION AS NECESSARY TO INSTALL PROPOSED IMPROVEMENTS.
- ④ SAWCUT AND REMOVE EXISTING ASPHALT PAVEMENT.
- ⑥ SAWCUT AND REMOVE CEMENT CONCRETE SIDEWALK TO THE NEAREST JOINT.
- ⑦ REMOVE MAILBOX. SEE GENERAL NOTE 4, THIS SHEET, AND MAILBOX RELOCATION PLAN, SHEET 7 AND SPECIFICATIONS.
- ⑨ REMOVE EXISTING TREE GRATE AND SALVAGE TO THE CITY. EXCAVATE TREE WELL TO 4' DEPTH, REMOVE UNSUITABLE SOIL AND BACKFILL WITH COMPACTED GRAVEL BORROW TO BOTTOM OF NEW CEMENT CONCRETE SIDEWALK SECTION.
- ⑩ TREE MARKED FOR REMOVAL TO BE STUMPED PER LSMC 14.76.120. SEE TREE REMOVAL PLAN, SHEET 12-17.
- ⑪ REMOVE AND ABANDON EXISTING LAKE STEVENS SEWER DISTRICT (LSSD) ABANDONED FORCE MAIN SEWER MANHOLE. PLUG AND FILL MANHOLE WITH PEA GRAVEL UP TO PROPOSED TYPICAL SECTION SUBGRADE. REMOVE LID AND FRAME BELOW GRADE IN CONFLICT WITH IMPROVEMENTS.

**LEGEND**

- REMOVE CONCRETE
- REMOVE PAVEMENT
- CURB AND GUTTER REMOVAL
- INLET PROTECTION
- REMOVE CONIFEROUS TREE
- REMOVE DECIDUOUS TREE
- CLEARING LIMITS
- SAWCUT LINE

NO.	DATE	BY	APPR	REVISIONS

Approved By		91AK020200SP01.dwg
ENGINEERING MANAGER	DATE	DPY 4/24
PROJECT MANAGER	DATE	AC 4/24
PROJECT ENGINEER	DATE	KA 4/24
	DATE	CHECKED BY



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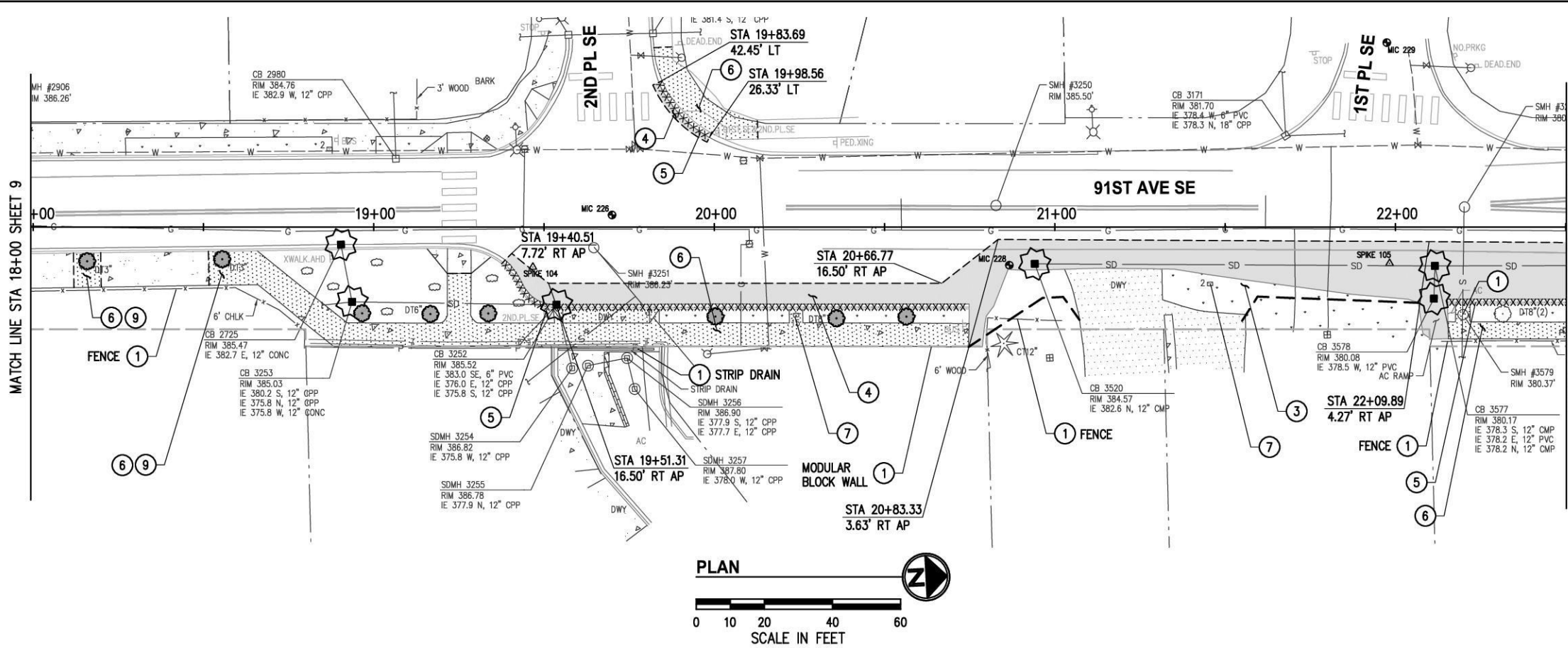
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**CITY OF LAKE STEVENS**  
**91ST AVE SE SIDEWALK IMPROVEMENTS PHASE 1**

SITE PREPARATION & TESC PLAN	
STA 9+00 TO STA 18+00	
KPG PROJECT No. 91AK020200	SHT 9 OF 42

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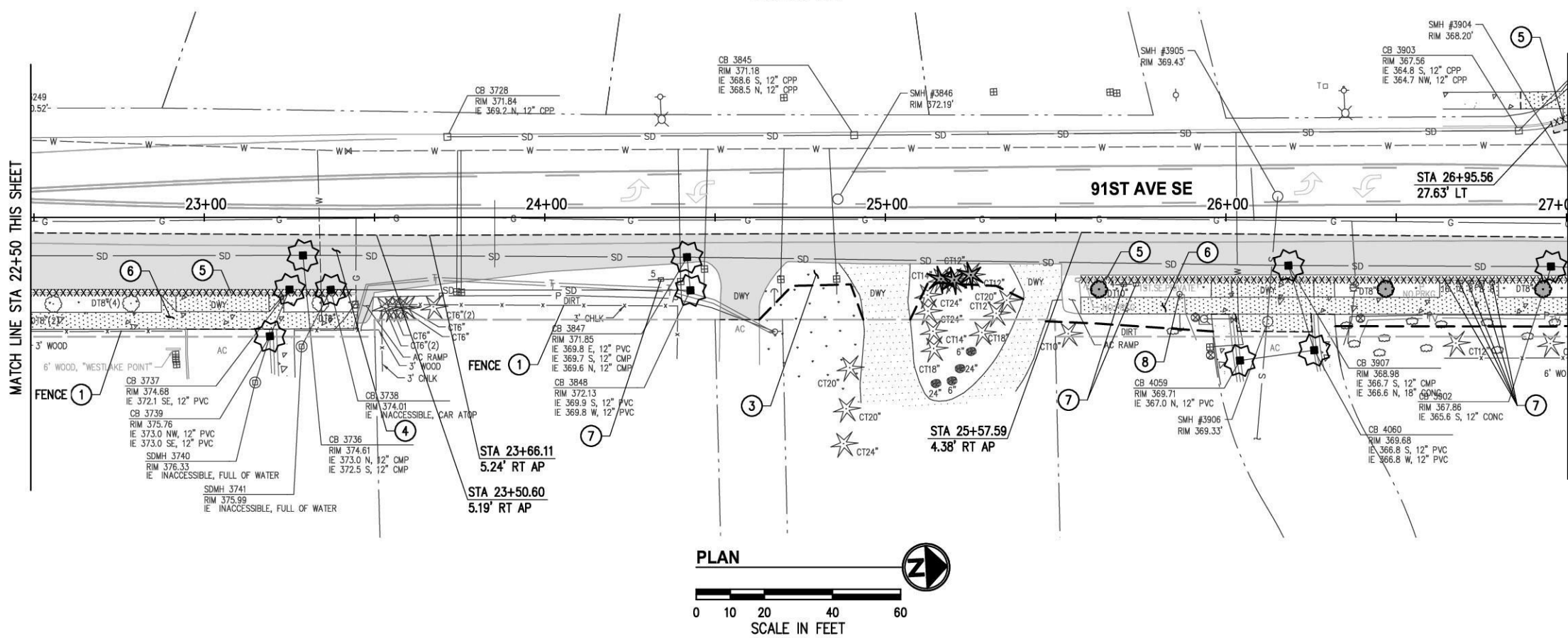


**GENERAL NOTES**

1. INLET PROTECTION SHALL BE PLACED IN ALL EXISTING CATCH BASINS AS SHOWN ON THE PLAN, AND IN NEW CATCH BASINS AT THE TIME OF INSTALLATION UNTIL PROJECT IS COMPLETE.
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4. FOR ALL MAILBOX RELOCATION LOCATIONS, SEE SHEET 7. CONTRACTOR TO PROVIDE SCHEDULE AND COORDINATION WITH USPS PRIOR TO ANY EXISTING MAILBOX REMOVAL TO ELIMINATE DISRUPTION OF MAIL SERVICE. SEE SPECIFICATIONS.

**CONSTRUCTION NOTES**

1. PROTECT IN PLACE.
2. REMOVE.
3. CLEAR AND GRUB EXISTING VEGETATION AS NECESSARY TO INSTALL PROPOSED IMPROVEMENTS.
4. SAWCUT AND REMOVE EXISTING ASPHALT PAVEMENT.
5. SAWCUT AND REMOVE CURB AND GUTTER.
6. SAWCUT AND REMOVE CEMENT CONCRETE SIDEWALK TO THE NEAREST JOINT.
7. REMOVE MAILBOX. SEE GENERAL NOTE 4, THIS SHEET, AND MAILBOX RELOCATION PLAN, SHEET 7 AND SPECIFICATIONS.
8. UTILITY POLE TO BE RELOCATED BY OTHERS.
9. REMOVE EXISTING TREE GRATE AND SALVAGE TO THE CITY. EXCAVATE TREE WELL TO 4' DEPTH, REMOVE UNSUITABLE SOIL AND BACKFILL WITH COMPACTED GRAVEL BORROW TO BOTTOM OF NEW CEMENT CONCRETE SIDEWALK SECTION.



**LEGEND**

- REMOVE CONCRETE
- REMOVE PAVEMENT
- CURB AND GUTTER REMOVAL
- INLET PROTECTION
- REMOVE CONIFEROUS TREE
- REMOVE DECIDUOUS TREE
- CLEARING LIMITS
- SAWCUT LINE

NO.	DATE	BY	APPR.	REVISIONS

Approved By		91AK020200SP01.dwg
ENGINEERING MANAGER	DATE	DPY 4/24
PROJECT MANAGER	DATE	AC 4/24
PROJECT ENGINEER	DATE	KA 4/24
	DATE	CHECKED BY DATE



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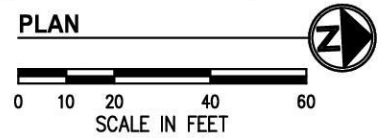
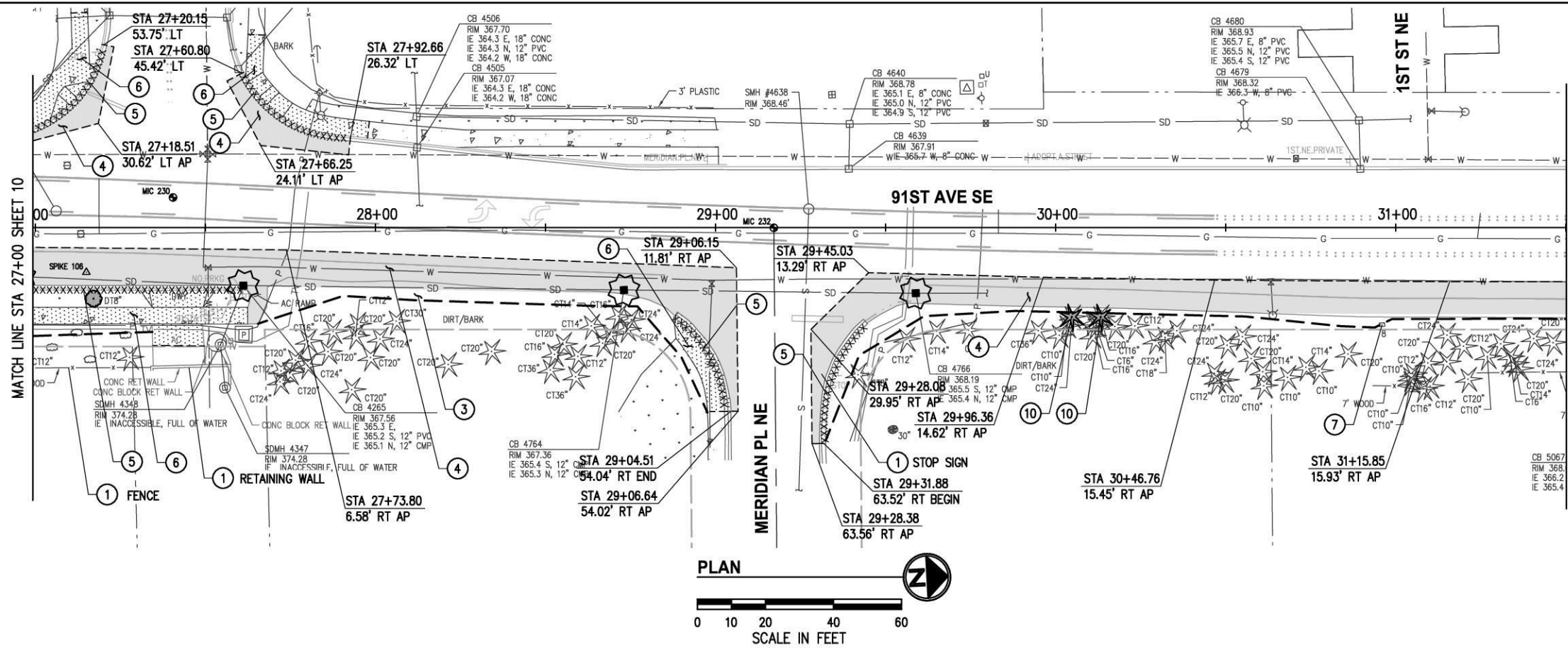
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**CITY OF LAKE STEVENS**  
 91ST AVE SE SIDEWALK IMPROVEMENTS PHASE 1

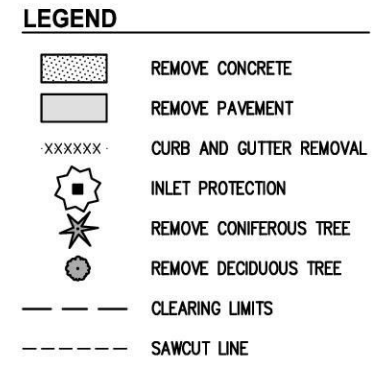
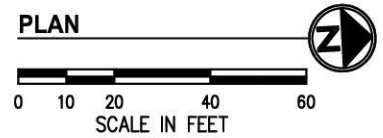
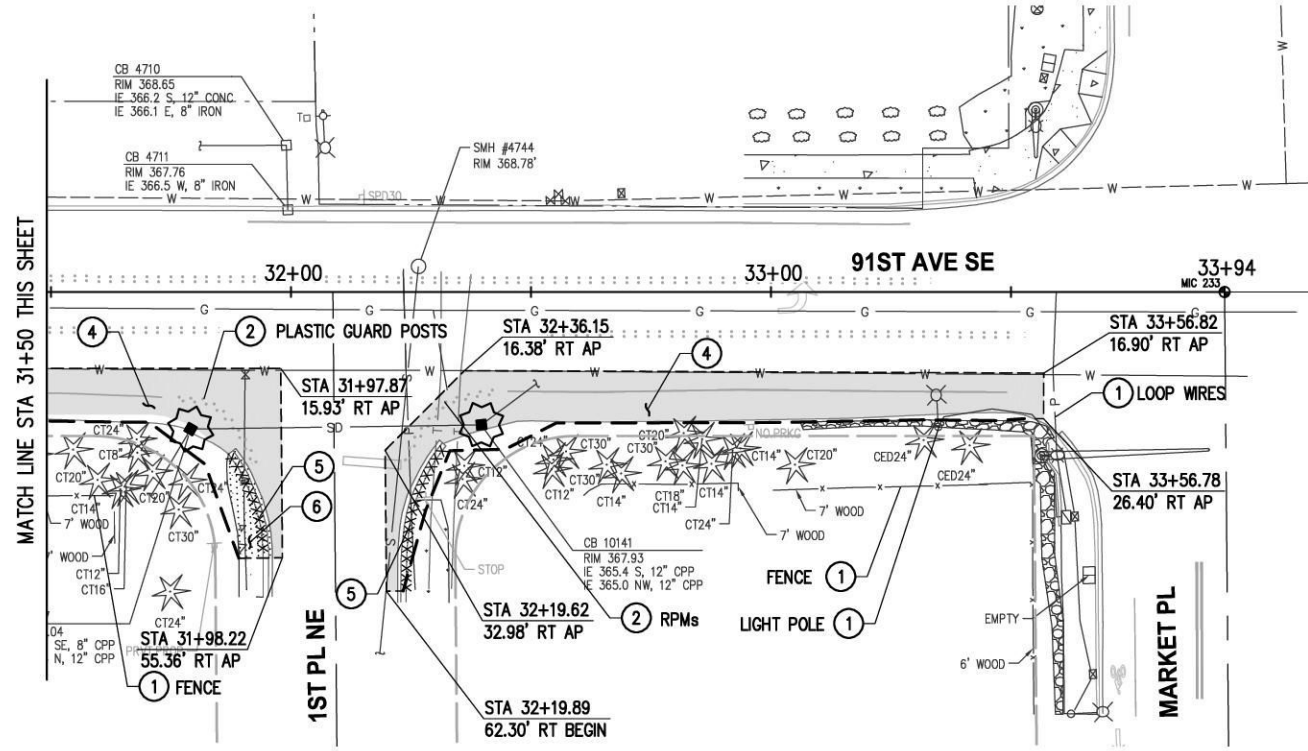
SITE PREPARATION & TESC PLAN	
STA 18+00 TO STA 27+00	
KPG PROJECT No. 91AK020200	SHT 10 OF 42

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- GENERAL NOTES**
1. INLET PROTECTION SHALL BE PLACED IN ALL EXISTING CATCH BASINS AS SHOWN ON THE PLAN, AND IN NEW CATCH BASINS AT THE TIME OF INSTALLATION UNTIL PROJECT IS COMPLETE.
  2. PRESERVE AND PROTECT ALL EXISTING UTILITIES TO REMAIN.
  3. PRUNE EXISTING TREES TO REMAIN AS REQUIRED TO PROVIDE MIN. 7' CLEARANCE ABOVE SIDEWALKS. ALL PRUNING ACTIVITIES SHALL BE PERFORMED BY A LICENSED LANDSCAPE CONTRACTOR AND SHALL BE APPROVED BY THE ENGINEER PRIOR TO START OF WORK. FOR TREES ON PRIVATE PROPERTY, COORDINATE WITH CITY.
  4. FOR ALL MAILBOX RELOCATION LOCATIONS SEE SHEET 7

- CONSTRUCTION NOTES**
1. PROTECT IN PLACE.
  2. REMOVE.
  3. CLEAR AND GRUB EXISTING VEGETATION AS NECESSARY TO INSTALL PROPOSED IMPROVEMENTS.
  4. SAWCUT AND REMOVE EXISTING ASPHALT PAVEMENT.
  5. SAWCUT AND REMOVE CURB AND GUTTER.
  6. SAWCUT AND REMOVE CEMENT CONCRETE SIDEWALK TO THE NEAREST JOINT.
  7. REMOVE MAILBOX. SEE GENERAL NOTE 4, THIS SHEET, AND MAILBOX RELOCATION PLAN, SHEET 7 AND SPECIFICATIONS.
  10. TREE MARKED FOR REMOVAL TO BE STUMPED PER LSMC 14.76.120. SEE TREE REMOVAL PLAN, SHEET 12-17.



NO.	DATE	BY	APPR.	REVISIONS

Approved By

ENGINEERING MANAGER	DATE	DESIGNED BY	DATE
PROJECT MANAGER	DATE	DRAWN BY	DATE
PROJECT ENGINEER	DATE	CHECKED BY	DATE



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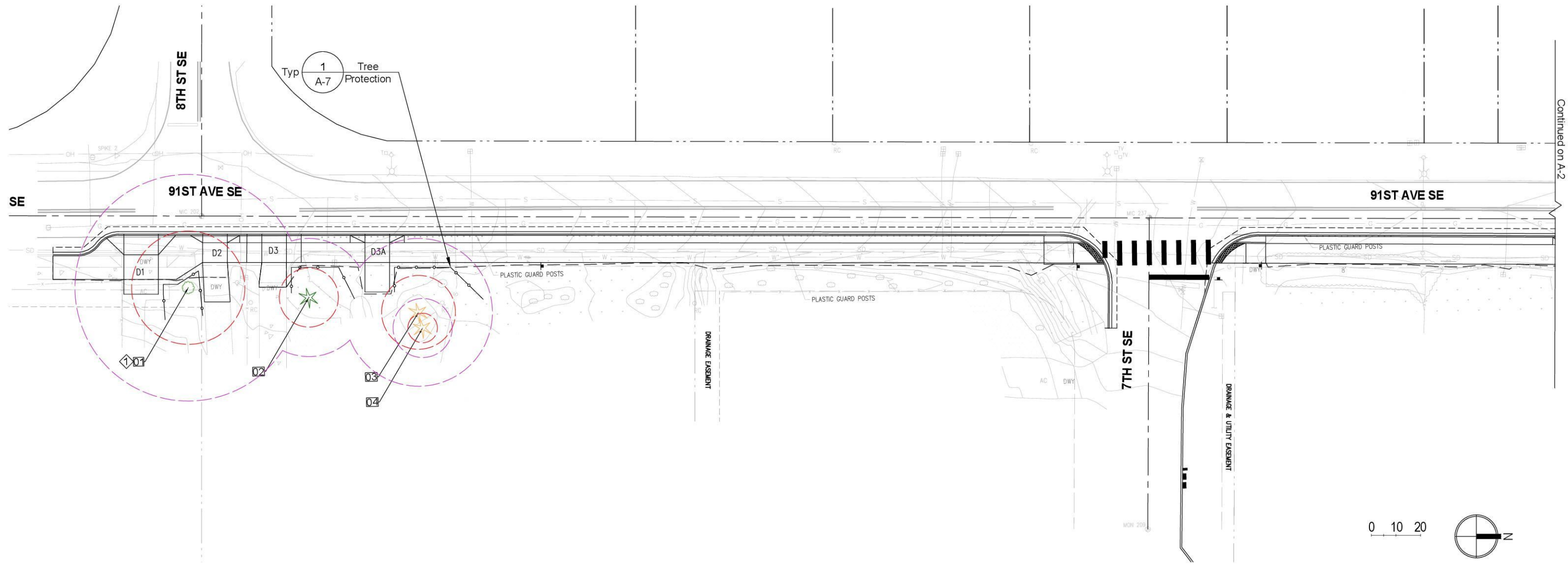
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**CITY OF LAKE STEVENS  
 91ST AVE SE SIDEWALK  
 IMPROVEMENTS PHASE 1**

SITE PREPARATION & TESC PLAN	
STA 27+00 TO STA 33+94	
KPG PROJECT No. 91AK020200	SHT 11 OF 42

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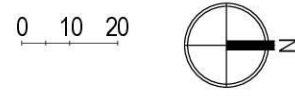
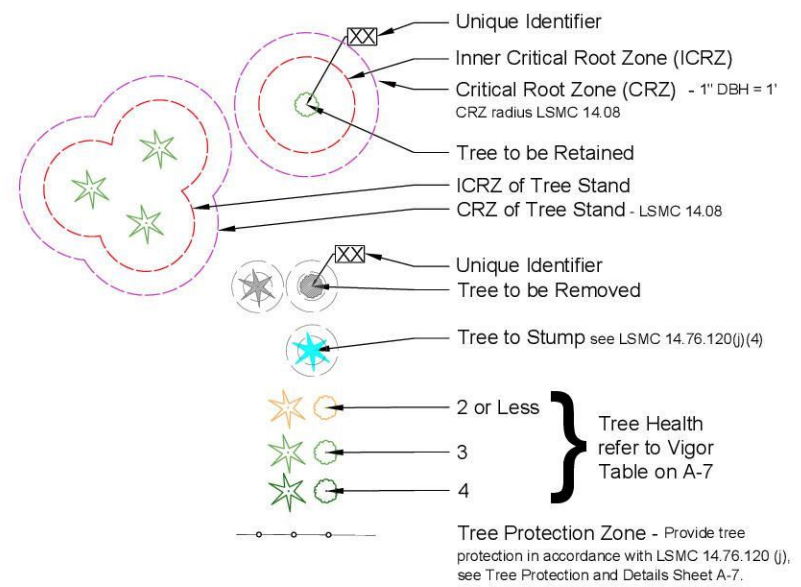
**GENERAL NOTES:**

1. All trees not marked for removal or stumping to be protected.
2. Refer to the arborist memo for compliance numbers in accordance with Lake Stevens Municipal Code.
3. Refer to Table 2, Tree Inventory of the Arborist Memo for further tree information.

**NOTES**

- ◊ Provide arborist oversight during construction.

**LEGEND**



NO	DATE	BY	APPR	REVISIONS

Approved By		ACAD-X9LAK020200ARB.dwg	
ENGINEERING MANAGER	DATE	FILENAME	
PROJECT MANAGER	DATE	DESIGNED BY	05/20/2024
PROJECT ENGINEER	DATE	TF	05/20/2024
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		CHECKED BY	
		DATE	



**BID DOCUMENT**



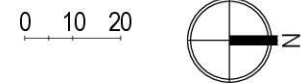
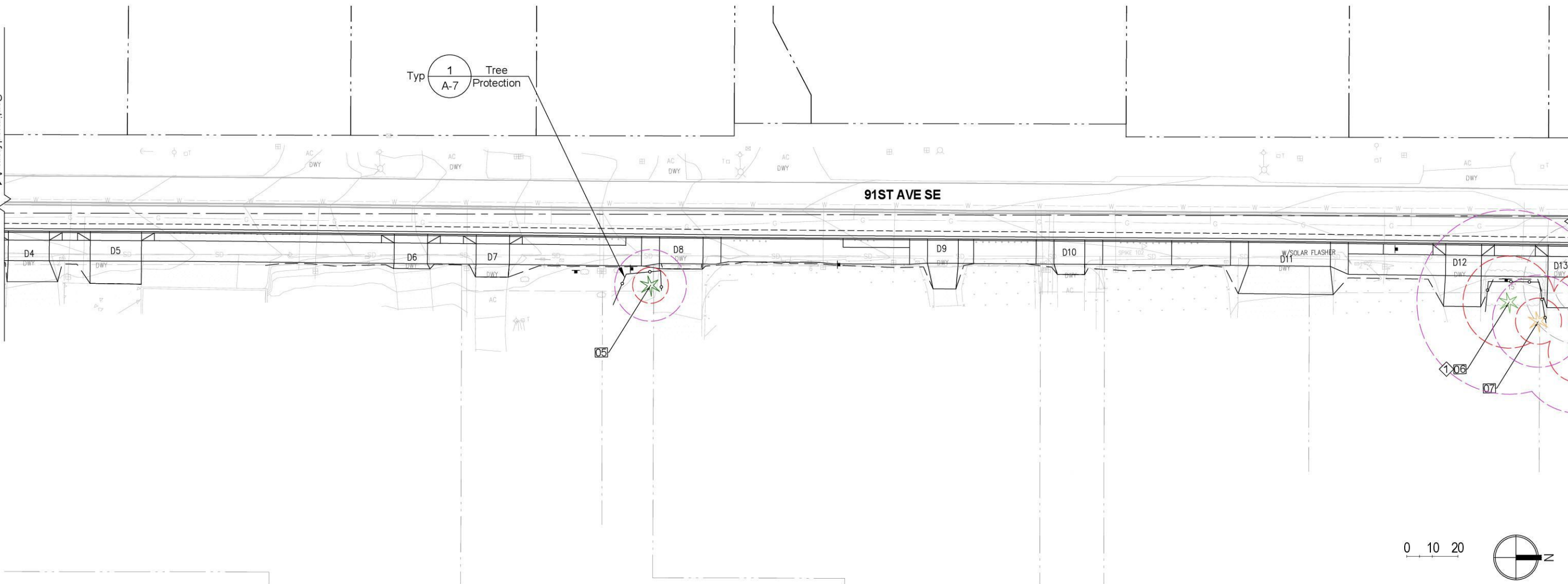
**CITY OF LAKE STEVENS  
91ST AVE SE SIDEWALK IMPROVEMENTS**

**TREE RETENTION PLAN**

KPG PROJECT No. 9LAK020200 SHT **12** OF **42**

Continued from A-1

Continued on A-3



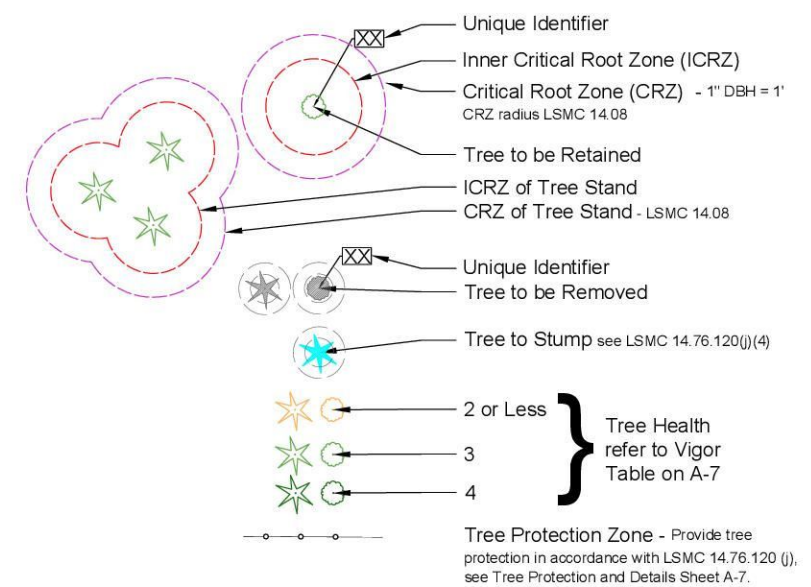
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**NOTES**

- ① Provide arborist oversight during construction.

**LEGEND**



NO	DATE	BY	APPR	REVISIONS

Approved By		ACAD-X9LAK020200ARB.dwg	
ENGINEERING MANAGER	DATE	DESIGNED BY	DATE
PROJECT MANAGER	DATE	DRAWN BY	DATE
PROJECT ENGINEER	DATE	CHECKED BY	DATE



**BID DOCUMENT**

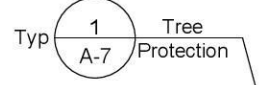
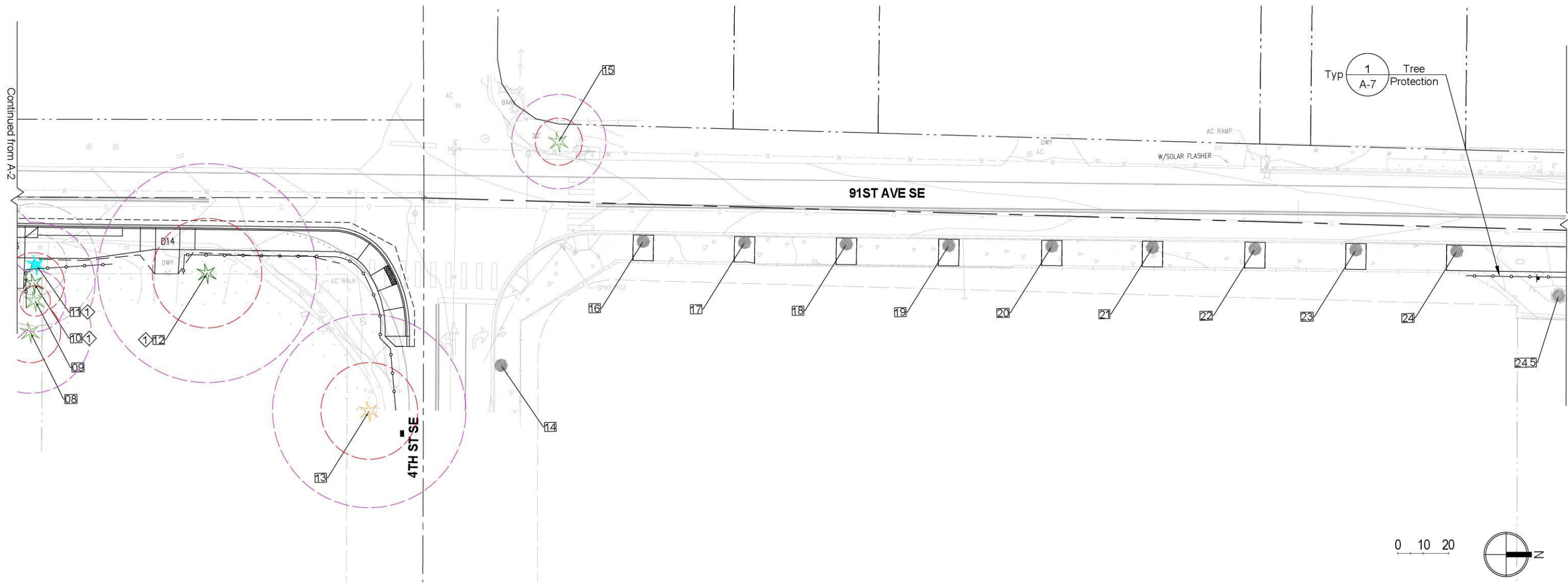


**CITY OF LAKE STEVENS  
91ST AVE SE SIDEWALK IMPROVEMENTS**

**TREE RETENTION PLAN**

Continued from A-2

Continued on A-4



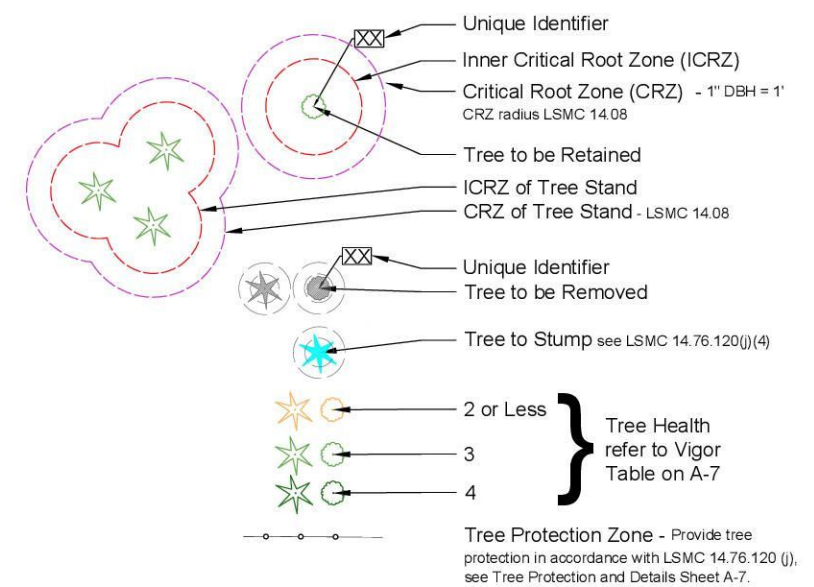
**GENERAL NOTES:**

1. All trees not marked for removal or stumping to be protected.
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3. Refer to Table 2, Tree Inventory of the Arborist Memo for further tree information.

**NOTES**

- ◊ Provide arborist oversight during construction.

**LEGEND**



NO	DATE	BY	APPR	REVISIONS

<b>Approved By</b>		ACAD-X9LAK020200ARB.dwg
ENGINEERING MANAGER	DATE	FILENAME
PROJECT MANAGER	DATE	DESIGNED BY
PROJECT ENGINEER	DATE	DATE
		TF
		DATE
		DESIGNED BY
		DATE
		TF
		DATE
		DRAWN BY
		DATE
		CHECKED BY
		DATE



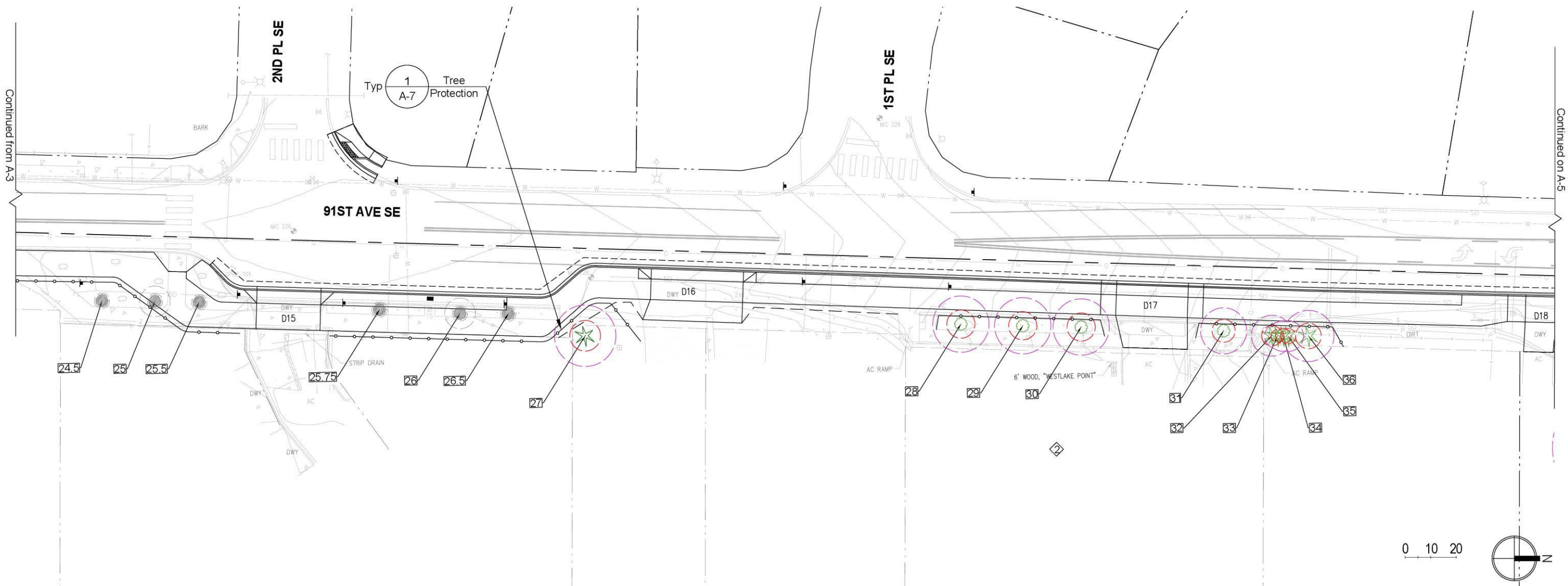
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**CITY OF LAKE STEVENS  
91ST AVE SE SIDEWALK IMPROVEMENTS**

**TREE RETENTION PLAN**

KPG PROJECT No. 9LAK020200 SHT 14 OF 42



Continued from A-3

Continued on A-5

**GENERAL NOTES:**

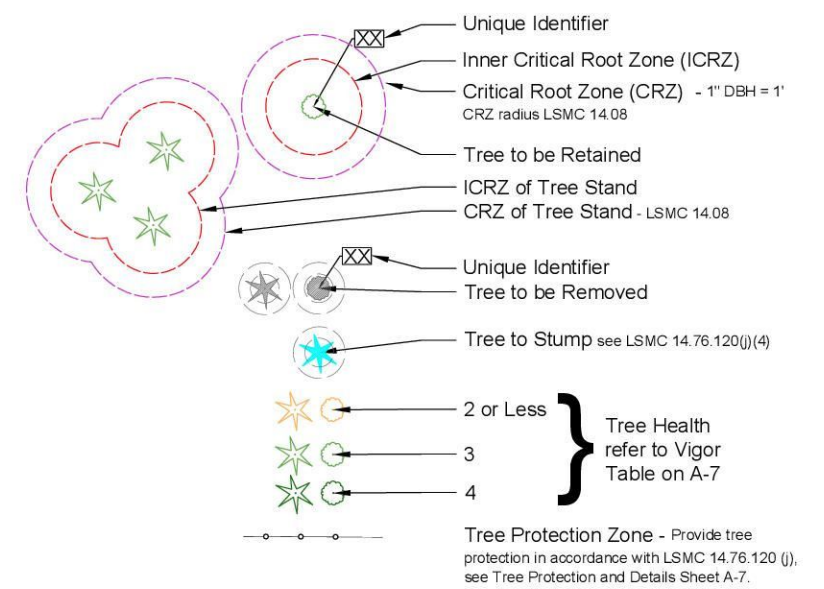
1. All trees not marked for removal or stumping to be protected.
2. Refer to the arborist memo for compliance numbers in accordance with Lake Stevens Municipal Code.
3. Refer to Table 2, Tree Inventory of the Arborist Memo for further tree information.

**NOTES**

- ◊ Provide arborist oversight during construction.



**LEGEND**



NO	DATE	BY	APPR	REVISIONS

<b>Approved By</b>		ACAD-X9LAK020200ARB.dwg
ENGINEERING MANAGER	DATE	FILENAME
PROJECT MANAGER	DATE	DESIGNED BY
PROJECT ENGINEER	DATE	DATE
		TF
		DATE
		05/2024
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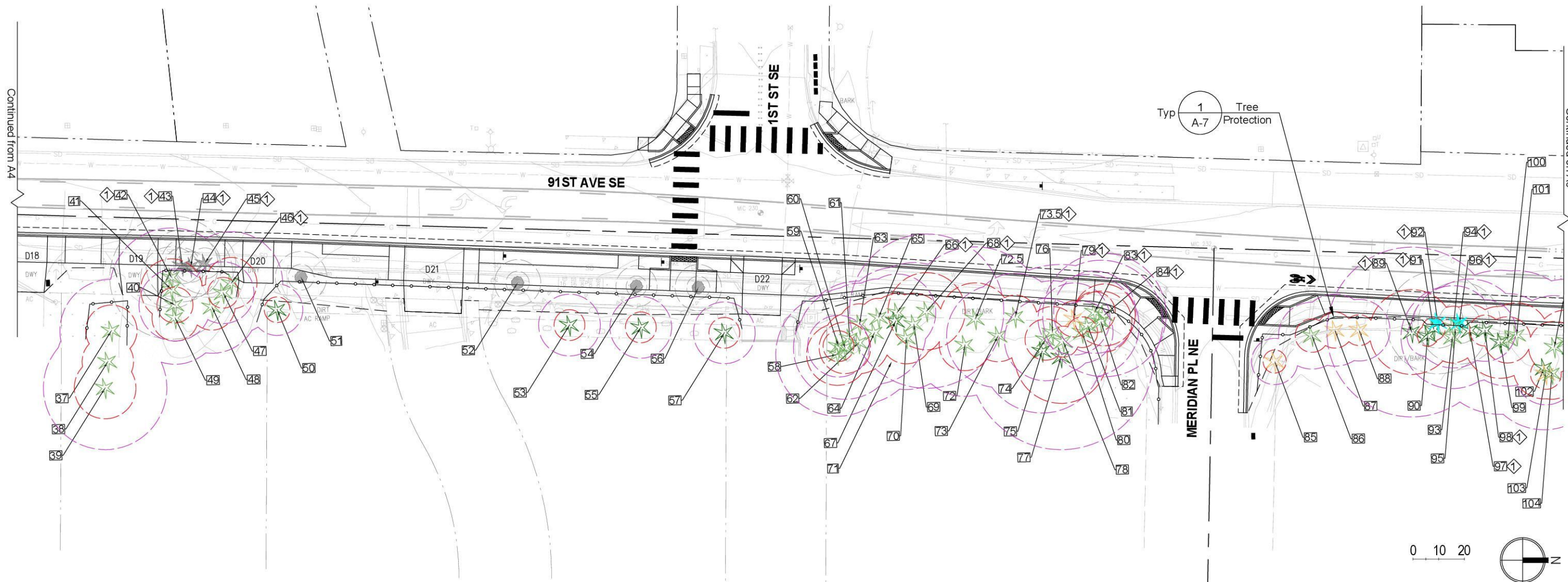
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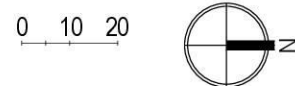
**CITY OF LAKE STEVENS  
91ST AVE SE SIDEWALK IMPROVEMENTS**

**TREE RETENTION PLAN**

KPG PROJECT No. 9LAK020200 SHT **15** OF **42**



Typ 1  
A-7 Tree Protection



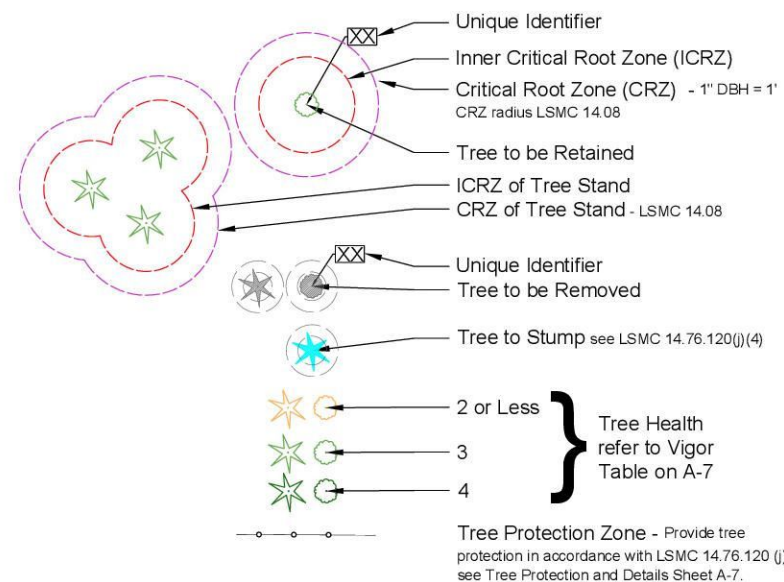
**GENERAL NOTES:**

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3. Refer to Table 2, Tree Inventory of the Arborist Memo for further tree information.

**NOTES**

- ◊ Provide arborist oversight during construction.

**LEGEND**



NO	DATE	BY	APPR	REVISIONS

Approved By		ACAD-X9LAK020200ARB.dwg	
ENGINEERING MANAGER	DATE	FILENAME	
PROJECT MANAGER	DATE	DESIGNED BY	05/2024
PROJECT ENGINEER	DATE	TF	05/2024
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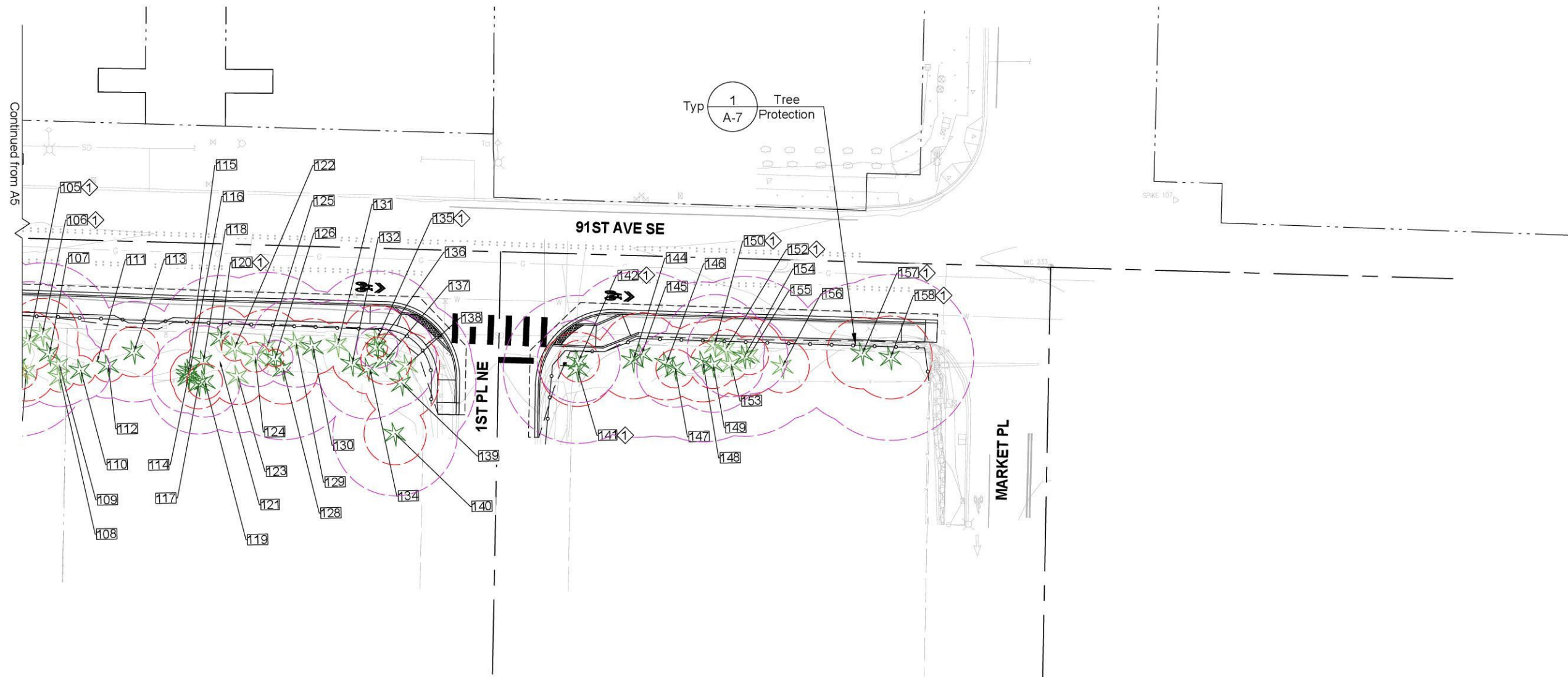
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**CITY OF LAKE STEVENS  
91ST AVE SE SIDEWALK IMPROVEMENTS**

**TREE RETENTION PLAN**

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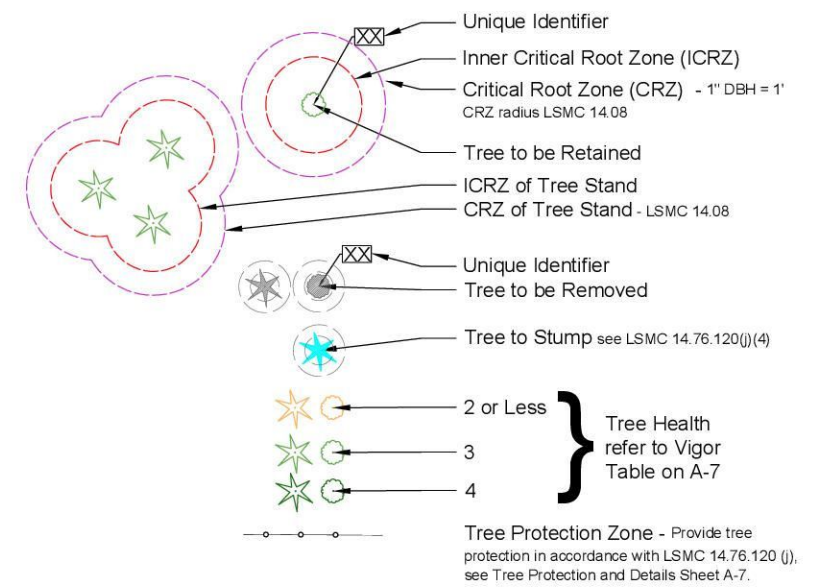
**GENERAL NOTES:**

1. All trees not marked for removal or stumping to be protected.
2. Refer to the arborist memo for compliance numbers in accordance with Lake Stevens Municipal Code.
3. Refer to Table 2, Tree Inventory of the Arborist Memo for further tree information.

**NOTES**

- ◁ Provide arborist oversight during construction.

**LEGEND**



NO	DATE	BY	APPR	REVISIONS

Approved By		ACAD-X9LAK020200ARB.dwg	
ENGINEERING MANAGER	DATE	DESIGNED BY	DATE
PROJECT MANAGER	DATE	DRAWN BY	DATE
PROJECT ENGINEER	DATE	CHECKED BY	DATE



**BID DOCUMENT**



**CITY OF LAKE STEVENS  
91ST AVE SE SIDEWALK IMPROVEMENTS**

**TREE RETENTION PLAN**

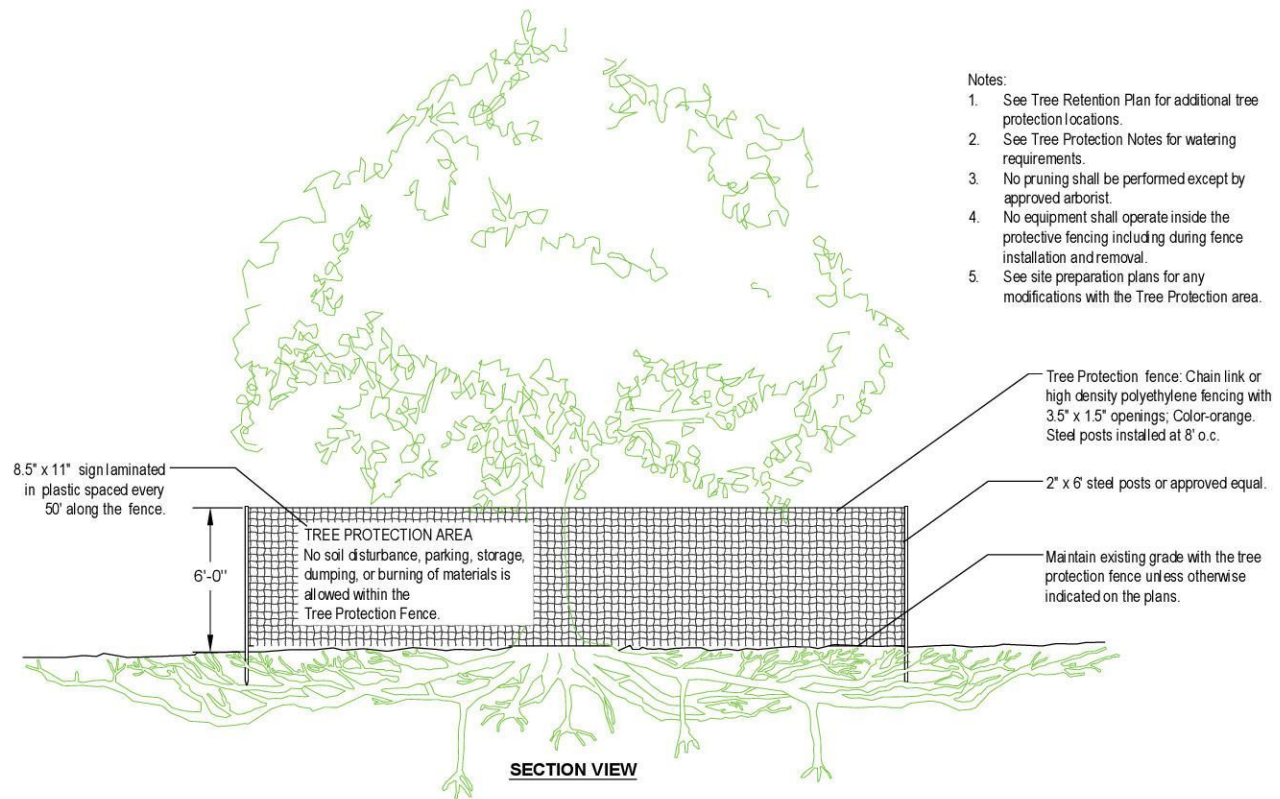
**LSMC 14.76.120 (j) RETENTION & PROTECTION OF LARGE TREES:**

- No site work will commence prior to the City inspecting and approving the location and installation of the barriers.
- No fill, excavation or other subsurface disturbance, operating, stacking or storing of equipment or compacting of earth may be undertaken within the drip line of any of the protected trees, and no impervious surface may be located within 12 1/2 feet (measured from the center of the trunk) of any tree 18 inches in diameter or more. A drip line is defined as a perimeter formed by the points farthest away from the trunk of a tree where precipitation falling from the branches of that tree lands on the ground.
- Where vehicular/equipment access is required within the drip line of a tree, the soil, and incidentally the tree's roots, shall be protected with 10 inches of woodchips and/or plywood placed over the path of the vehicle to limit soil compaction and subsequent root damage. Before any vehicles may travel through the protected area, the developer shall submit an affidavit from a certified arborist that measures installed are sufficient to protect the tree(s) in question.
- Stumps of trees to be removed within one-half of the radius of the critical root zone (CRZ), which is defined as CRZ equals one foot radius for every one inch of the tree's diameter, shall not be excavated but may be ground down to below the ground surface.
- Unwanted vegetation within the CRZ of a protected tree shall be removed by hand.
- Backfilling into a CRZ of a protected tree shall be done only with the written approval of a certified arborist. Only well drained soil with sufficient air space (sandy soils) are permitted.
- Upon completion of site clearing, protected trees may be pruned for deadwood, low hanging limbs and proper balance under the supervision of a certified arborist. Trees may be cabled and braced as recommended by the arborist. (Ord. 903, Sec. 49, 2013; Ord. 666, Sec. 13, 2002; Ord. 639, Sec. 4, 2001; Ord. 596, 1999; Ord. 468, 1995)
- Control soil moisture within the Tree Protection Area. Prevent flooding of the soil, and protect root areas from leachate, cement, oil, fuel and lubricating oil, and all contaminants.

**VIGOR TABLE - RELATIVE CONDITION OF TREES¹**

Rating	Overall Vigor	Canopy Density	Amount of Deadwood	History of Failure	Pests	Extent of Decay
1	Severe Decline	<20%	Large; Major Scaffold Branches	More than One Scaffold	Infested	Major-Conks & Cavities
2	Low	20-60%	Twig & Branch Dieback	Scaffold Branches	Infestation of Significant Pests	One to a Few Conks; Small Cavities
3	Good	60-90%	Small Twigs	Small Branches	Minor	Present at Pruning Wounds
4	Excellent	90-100%	Little or None	None	Minor	Present at Pruning Wounds

¹ ADAPTED FROM MATHENY, N.P. & CLARK, J.R. TREES AND DEVELOPMENT: A TECHNICAL GUIDE TO PRESERVATION OF TREES DURING LAND DEVELOPMENT. BRIGHT SPARKS, 1998



- Notes:
- See Tree Retention Plan for additional tree protection locations.
  - See Tree Protection Notes for watering requirements.
  - No pruning shall be performed except by approved arborist.
  - No equipment shall operate inside the protective fencing including during fence installation and removal.
  - See site preparation plans for any modifications with the Tree Protection area.

**1 TREE PROTECTION**  
1/4" = 1'-0"

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NO	DATE	BY	APPR	REVISIONS

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PROJECT MANAGER	DATE	DESIGNED BY
PROJECT ENGINEER	DATE	DATE
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		DATE
		CHECKED BY
		DATE



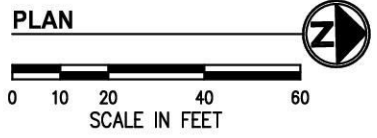
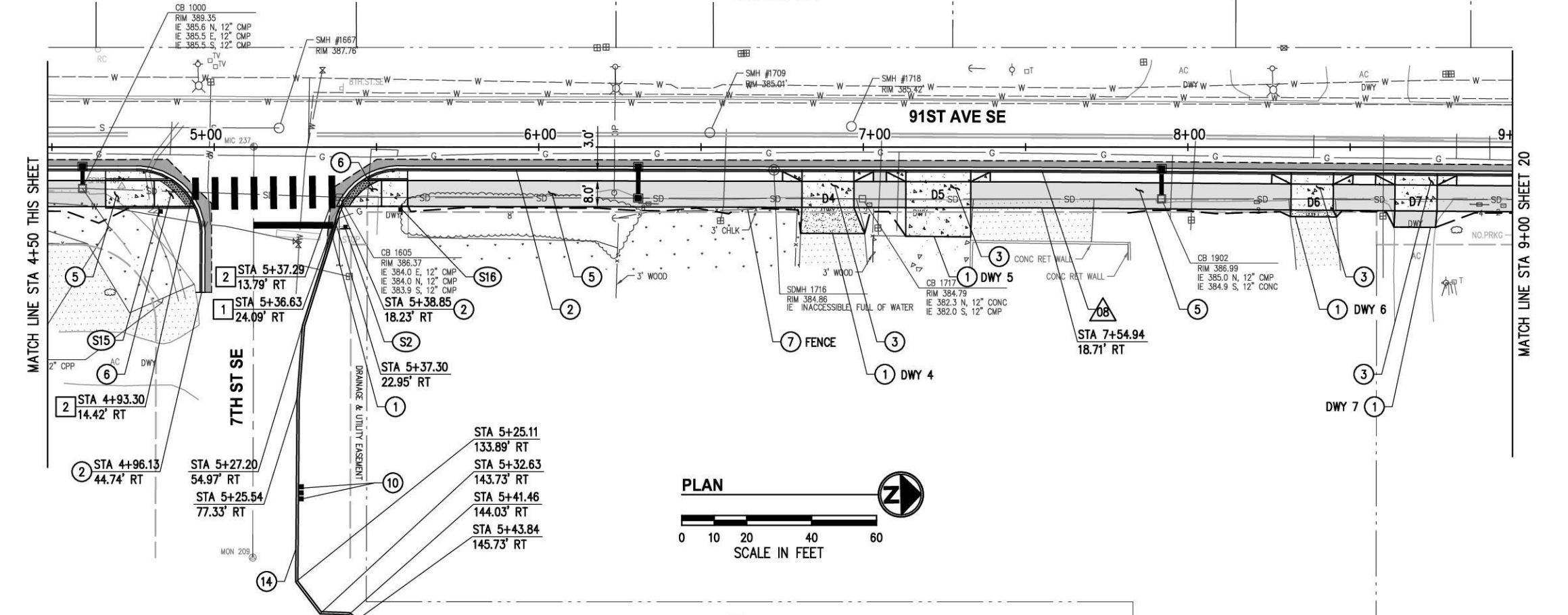
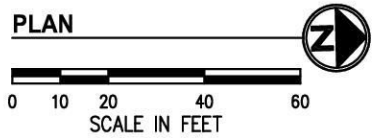
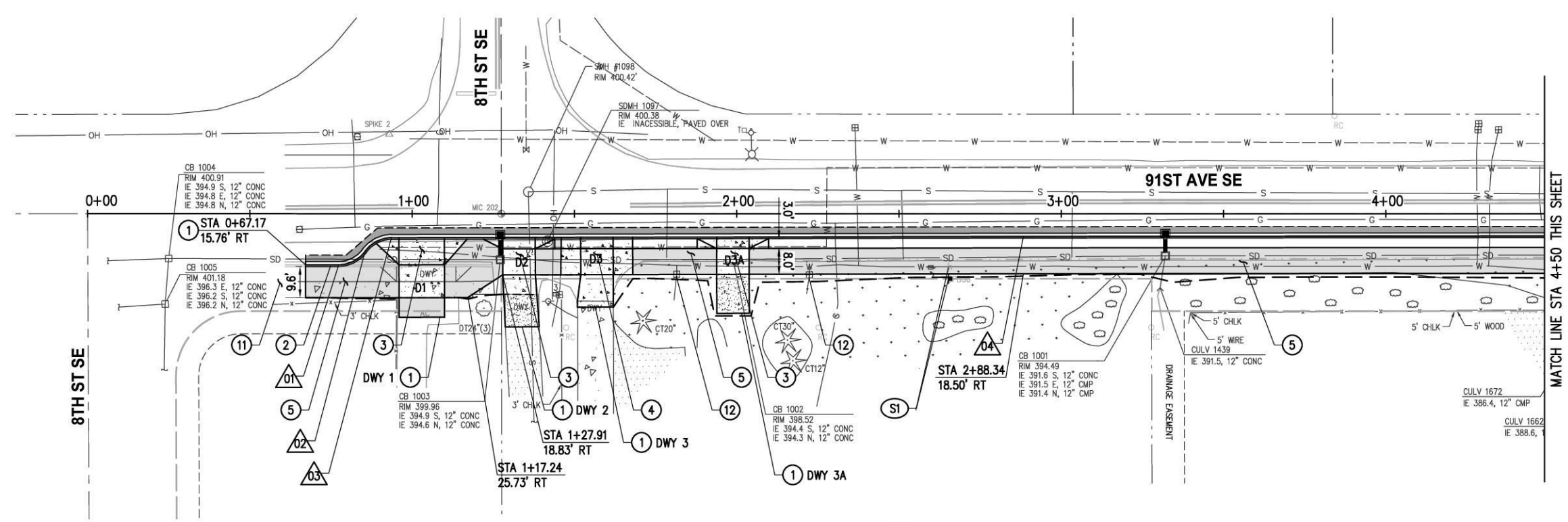
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**CITY OF LAKE STEVENS**  
**91ST AVE SE SIDEWALK IMPROVMENTS**

**TREE PROTECTION & DETAILS**

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**GENERAL NOTES**

- FOR STORMWATER IMPROVEMENTS, SEE SHEETS 29-32.
- EXISTING SIGNS NOT CALLED OUT FOR REMOVAL SHALL BE PROTECTED.
- FOR SIGN SCHEDULE SEE ROADWAY PLAN SHEET 22. PROPOSED AND RELOCATED SIGNS SHALL BE INSTALLED ON NEW POSTS PER WSDOT STD PLAN G-24.50-05, TYPE ST-2 UNLESS OTHERWISE NOTED.
- FOR HORIZONTAL AND VERTICAL CONTROL POINTS, SEE FLOW LINE TABLES, SHEET 6.
- CONFLICTING PAVEMENT MARKINGS SHALL BE REMOVED.
- CONTRACTOR SHALL PROTECT ALL EXISTING ITEMS WITHIN AND OUTSIDE OF PROJECT LIMITS.
- CONSTRUCT CEMENT CONC CURB AND GUTTER, BUFFER STRIP, MULTI-USE PATH, AND NEW PAVEMENT SECTION PER TYPICAL SECTIONS, SHEET 4.

**ROADWAY CONSTRUCTION NOTES**

- MATCH EXISTING.
- INSTALL CEMENT CONCRETE CURB & GUTTER PER COLS EDDS STANDARD PLAN 6-220.
- INSTALL CEMENT CONC. DRIVEWAY ENTRANCE TYPE 1 PER DETAIL, SHEET 5.
- INSTALL CEMENT CONC. DRIVEWAY ENTRANCE TYPE 2 PER DETAIL, SHEET 5.
- INSTALL MULTI-USE PATH PER TYPICAL SECTION, SEE SHEET 4.
- INSTALL CEMENT CONC. CURB RAMP PER CURB RAMP GRADING PLAN, SHEETS 23-28.
- REMOVE AND RESET CHAINLINK FENCE TO INSTALL IMPROVEMENTS.
- INSTALL COLLECTION BOX UNIT (CBU) FOUNDATION PAD PER COLS EDDS STD PLAN 6-140. SEE MAILBOX RELOCATION SHEET 7.
- PRESERVE AND PROTECT EXISTING CEMENT CONC. SIDEWALK.
- ADJUST WATER SERVICE TO BACK OF WALK PERFORMED BY WATER DISTRICT. COORDINATE DURING CONSTRUCTION.
- INSTALL HMA THICKENED EDGE PER DETAIL, SHEET 5.

**CHANNELIZATION CONSTRUCTION NOTES**

- THERMOPLASTIC STOP BAR PER COLS EDDS STD PLAN 4-010.
- THERMOPLASTIC CROSSWALK BARS PER COLS EDDS STD PLAN 4-010.

**LEGEND**

- CEMENT CONCRETE PAVEMENT/SIDEWALK
- FULL DEPTH HMA
- HMA CL 3/8" PG 58H-22
- GRAVEL
- DETECTABLE WARNING SURFACE
- SAWCUT LINE
- MAILBOX FOUNDATION PAD
- CURB AND GUTTER
- PROPOSED SIGN
- CLEARING LIMITS
- SIGN SCHEDULE NOTE
- STA/OFF/ELEVATION POINT (SEE SHEET 6)

NO.	DATE	BY	APPR.	REVISIONS

Approved By		91AK020200RD01.dwg
ENGINEERING MANAGER	DATE	DPY 4/24
PROJECT MANAGER	DATE	AC 4/24
PROJECT ENGINEER	DATE	KA 4/24
	DATE	CHECKED BY



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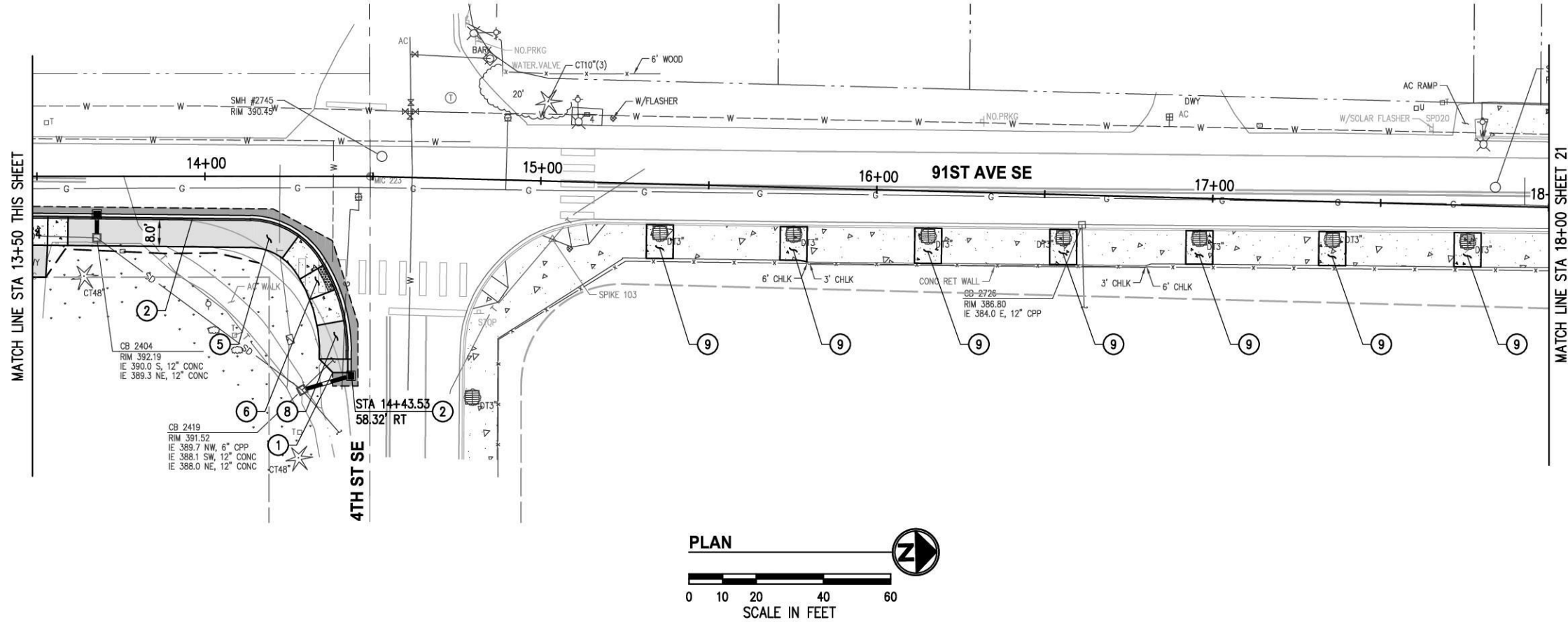
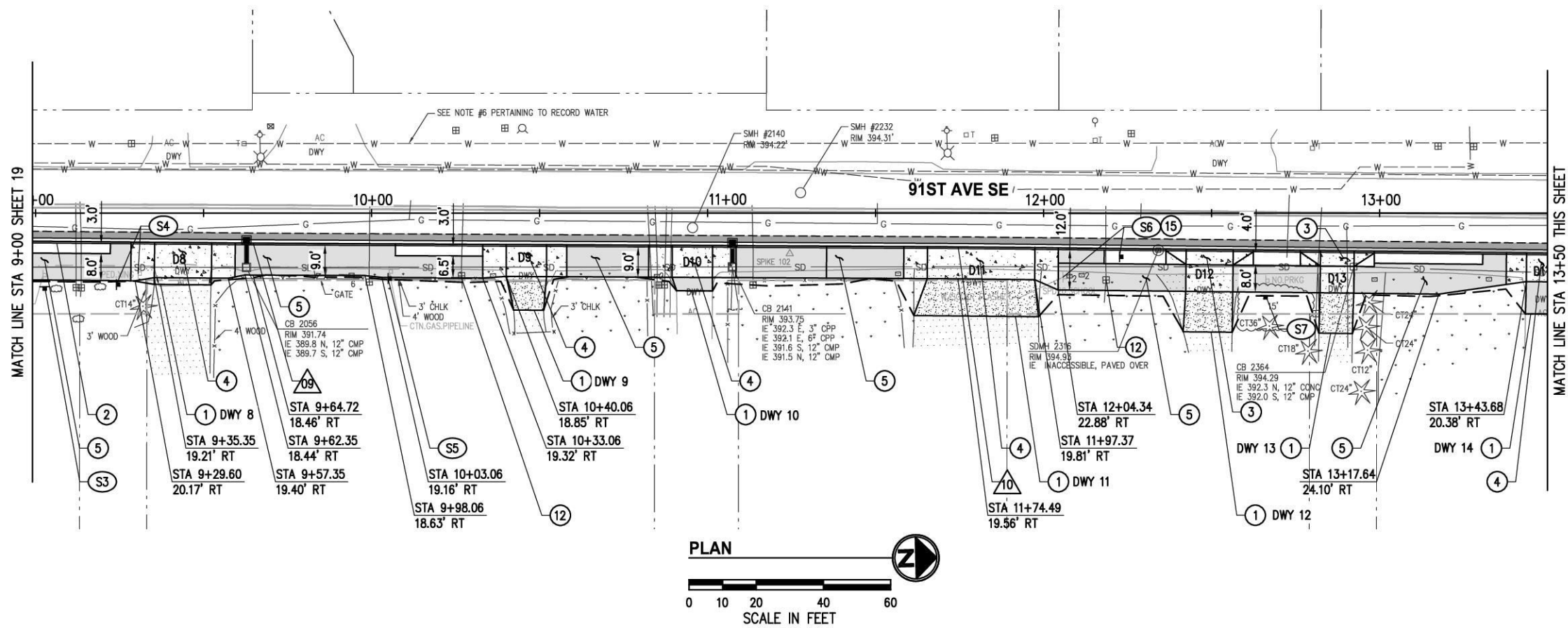
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**CITY OF LAKE STEVENS  
 91ST AVE SE SIDEWALK  
 IMPROVEMENTS PHASE 1**

ROADWAY PLAN STA 0+00 TO STA 9+00	
KPG PROJECT No. 91AK020200	SHT 19 OF 42

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**GENERAL NOTES**

1. SEE SHEET 19 FOR GENERAL NOTES AND ROADWAY PLAN LEGEND.

**ROADWAY CONSTRUCTION NOTES**

- ① MATCH EXISTING.
- ② INSTALL CEMENT CONCRETE CURB & GUTTER PER COLS EDDS STANDARD PLAN 6-220.
- ③ INSTALL CEMENT CONC. DRIVEWAY ENTRANCE TYPE 1 PER DETAIL, SHEET 5.
- ④ INSTALL CEMENT CONC. DRIVEWAY ENTRANCE TYPE 2 PER DETAIL, SHEET 5.
- ⑤ INSTALL MULTI-USE PATH PER TYPICAL SECTION, SEE SHEET 4.
- ⑥ INSTALL CEMENT CONC. CURB RAMP PER CURB RAMP GRADING PLAN, SHEETS 23-28.
- ⑧ INSTALL HMA TRANSITION RAMP PER DETAIL, SHEET 5.
- ⑨ INSTALL CEMENT CONC. SIDEWALK PER TYPICAL SECTION, SHEET 4.
- ⑩ INSTALL COLLECTION BOX UNIT (CBU) FOUNDATION PAD PER COLS EDDS STD PLAN 6-140. SEE MAILBOX RELOCATION SHEET 7.
- ⑫ ADJUST WATER SERVICE TO BACK OF WALK PERFORMED BY WATER DISTRICT. COORDINATE DURING CONSTRUCTION.

**CHANNELIZATION CONSTRUCTION NOTES**

- ① THERMOPLASTIC STOP BAR PER COLS EDDS STD PLAN 4-010.
- ② THERMOPLASTIC CROSSWALK BARS PER COLS EDDS STD PLAN 4-010.

NO.	DATE	BY	APPR	REVISIONS

Approved By		FILENAME	DATE
ENGINEERING MANAGER	DATE	91AK020200RD01.dwg	4/24
PROJECT MANAGER	DATE	DESIGNED BY	4/24
PROJECT ENGINEER	DATE	DRAWN BY	4/24
	DATE	CHECKED BY	DATE



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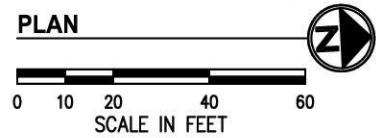
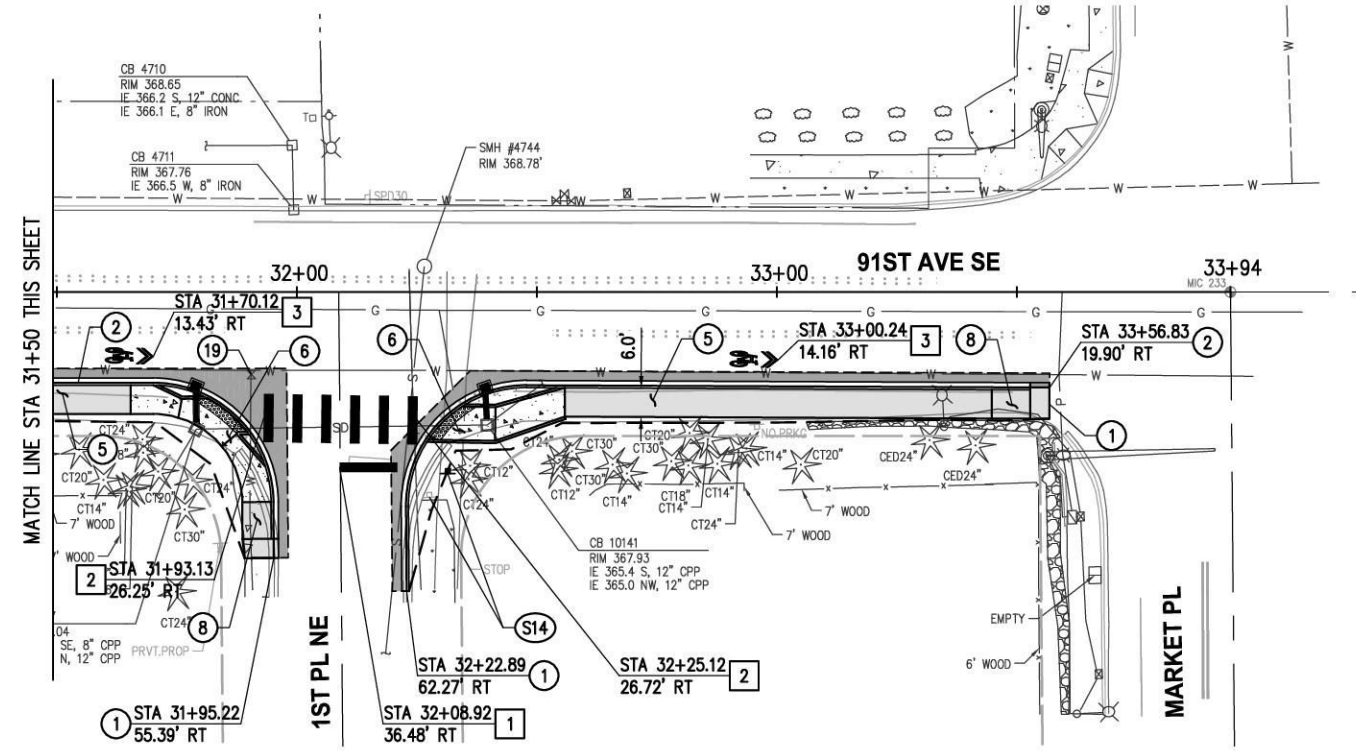
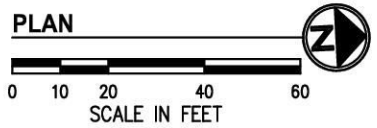
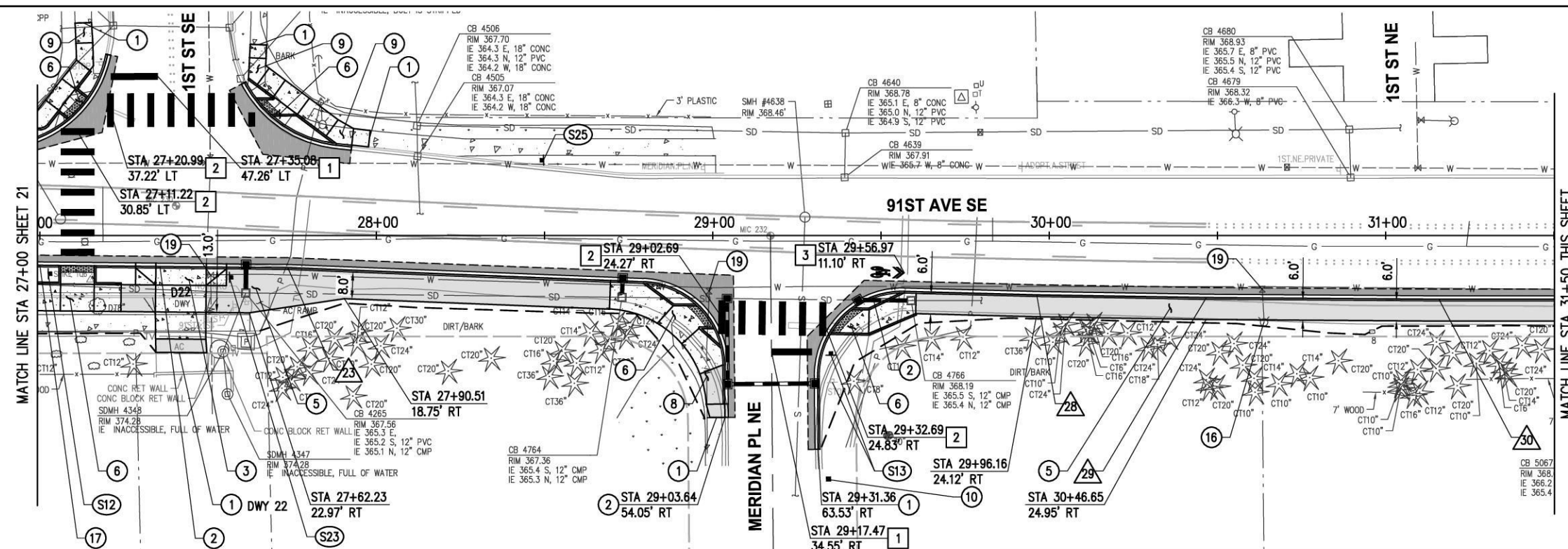


**CITY OF LAKE STEVENS**  
**91ST AVE SE SIDEWALK**  
**IMPROVEMENTS PHASE 1**

ROADWAY PLAN	
STA 9+00 TO STA 18+00	
KPG PROJECT No. 91AK020200	SHT 20 OF 42



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**GENERAL NOTES**

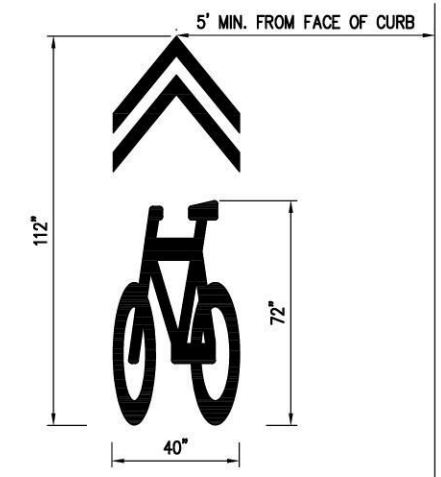
- SEE SHEET 19 FOR GENERAL NOTES AND ROADWAY PLAN LEGEND.
- INSTALL CEMENT CONCRETE CURB & GUTTER PER COLS EDDS STANDARD PLAN 6-220.
- INSTALL CEMENT CONC. DRIVEWAY ENTRANCE TYPE 1 PER DETAIL, SHEET 5.
- INSTALL MULTI-USE PATH PER TYPICAL SECTION, SEE SHEET 4.
- INSTALL CEMENT CONC. CURB RAMP PER CURB RAMP GRADING PLAN, SHEETS 23-28.
- INSTALL CEMENT CONC. SIDEWALK PER TYPICAL SECTION, SHEET 4.
- INSTALL HMA TRANSITION RAMP PER DETAIL, SHEET 5.
- INSTALL COLLECTION BOX UNIT (CBU) FOUNDATION PAD PER COLS EDDS STD PLAN 6-140. SEE MAILBOX RELOCATION SHEET 7.
- ADJUST FIRE HYDRANT TO BACK OF WALK PERFORMED BY WATER DISTRICT. COORDINATE DURING CONSTRUCTION.
- ADD TRANSIT STOP CURB STRIPING PER COLS EDDS STD PLAN 6-455.
- ADJUST WATER VALVE TO GRADE, PERFORMED BY WATER DISTRICT. COORDINATE DURING CONSTRUCTION.

**CHANNELIZATION CONSTRUCTION NOTES**

- THERMOPLASTIC STOP BAR PER COLS EDDS STD PLAN 4-010.
- THERMOPLASTIC CROSSWALK BARS PER COLS EDDS STD PLAN 4-010.
- PLASTIC SHARED LANE MARKING PER DETAIL, THIS SHEET.

**SIGN SCHEDULE**

SIGN NO.	STATION	OFFSET	DESIGNATION	SIZE	REMARKS
S1	2+65.26	20.00' RT	R2-1 SPEED LIMIT	24" x 30"	RELOCATE
S2	5+40.45	25.10' RT	R1-1 STOP	30" x 30"	RELOCATE
S3	9+02.73	21.95' RT	R7-1 NO PARKING	12" x 18"	RELOCATE
S4	9+24.07	21.29' RT	S1-1 PEDESTRIAN CROSSING	30" x 30"	RELOCATE
S5	10+04.91	19.50' RT	PIPELINE STAKE		RELOCATE
S6	12+22.62	13.00' RT	R2-1 SPEED LIMIT	24" x 30"	RELOCATE
S7	12+66.09	24.54' RT	R7-1 NO PARKING	12" x 18"	RELOCATE
S8	18+87.20	19.14' RT	W11-2 CROSSING AHEAD	30" x 30"	RELOCATE
S9	19+48.73	21.81' RT	STREET NAME		RELOCATE
S10	20+52.96	22.62' RT	BUS STOP		RELOCATE
S11	25+91.65	22.23' RT	STREET NAME		RELOCATE
S12	27+02.52	11.36' RT	BUS STOP		RELOCATE
S13	29+35.13	35.55' RT	R1-1 STOP	30" x 30"	RELOCATE
S14	32+31.46	37.82' RT	R1-1 STOP	30" x 30"	RELOCATE
S15	4+82.96	19.80' RT	R9-3A NO PEDESTRIAN CROSSING	12" x 18"	NEW
S16	5+57.89	19.27' RT	R9-3A NO PEDESTRIAN CROSSING	12" x 18"	NEW
S17	19+89.98	22.50' RT	R9-3A NO PEDESTRIAN CROSSING	12" x 18"	NEW
S18	20+10.01	24.31' LT	R9-3A NO PEDESTRIAN CROSSING	12" x 18"	NEW
S19	21+69.12	10.56' RT	R9-3A NO PEDESTRIAN CROSSING	12" x 18"	NEW
S20	21+60.74	26.51' LT	R9-3A NO PEDESTRIAN CROSSING	12" x 18"	NEW
S21	22+35.22	26.21' LT	R9-3A NO PEDESTRIAN CROSSING	12" x 18"	NEW
S22	22+26.25	10.87' RT	R9-3A NO PEDESTRIAN CROSSING	12" x 18"	NEW
S23	27+56.33	12.41' RT	STREET NAME		NEW
S24	26+41.00	10.73' RT	W11-2 PEDESTRIAN CROSSING	30" x 30"	NEW
S25	28+49.71	22.39' LT	W11-2 PEDESTRIAN CROSSING	30" x 30"	NEW



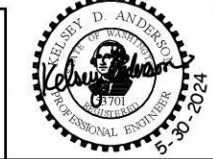
- SHARED LANE MARKING SHALL BE IN ACCORDANCE TO MUTCD, CURRENT WA ADOPTED EDITION.
- ADJUSTMENT OF DIMENSIONS SHALL BE APPROVED BY THE TRAFFIC ENGINEER.
- CENTERLINE OF SYMBOL SHALL BE 5' MIN FROM FACE OF CURB.

**PLASTIC SHARED LANE MARKING**  
NTS

NO.	DATE	BY	APPR.	REVISIONS

Approved By

ENGINEERING MANAGER	DATE	DESIGNED BY	DATE
PROJECT MANAGER	DATE	DRAWN BY	DATE
PROJECT ENGINEER	DATE	CHECKED BY	DATE



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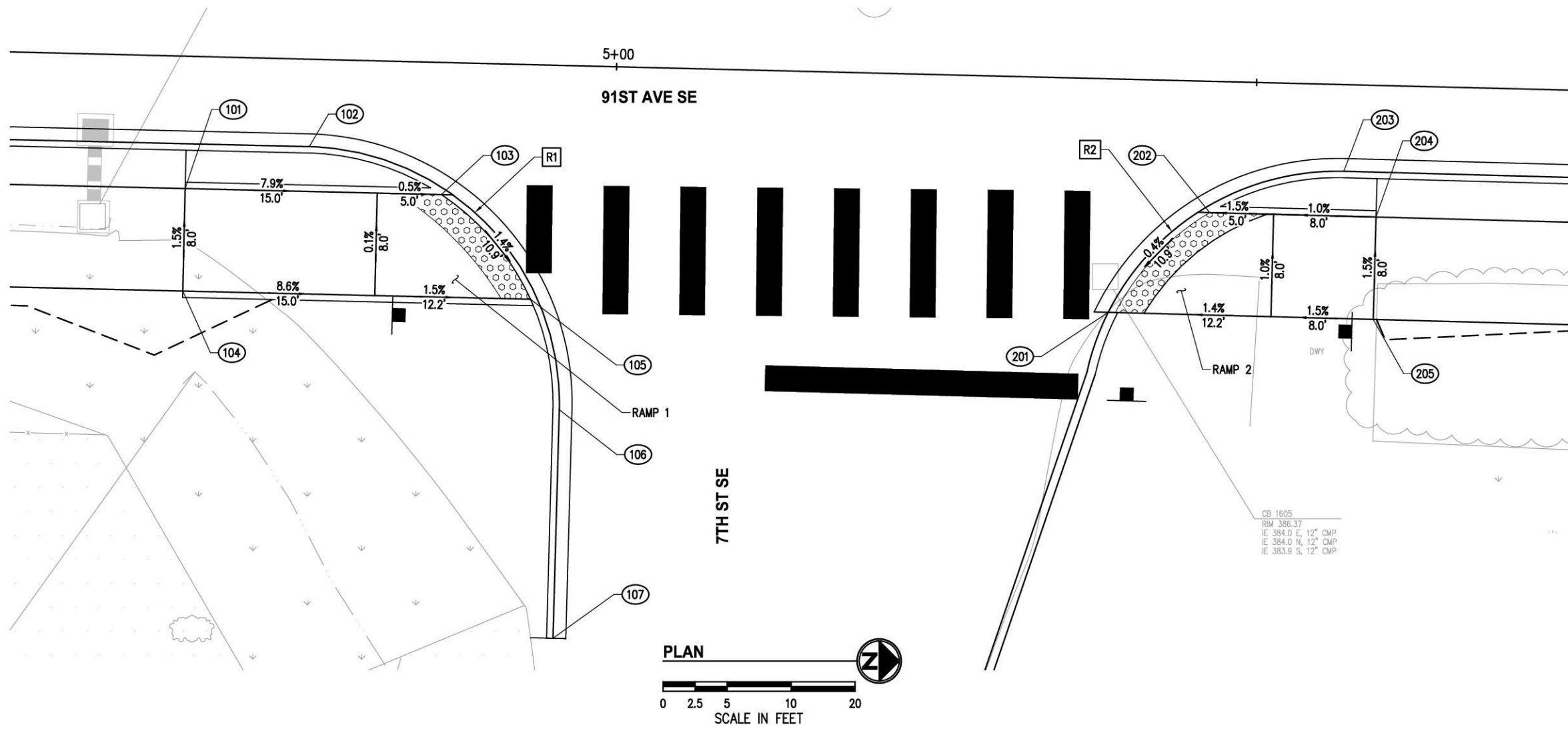
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**CITY OF LAKE STEVENS**  
**91ST AVE SE SIDEWALK IMPROVEMENTS PHASE 1**

ROADWAY PLAN STA 27+00 TO STA 33+94	
KPG PROJECT No. 91AK020200	SHT 22 OF 42

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RAMP 1 GRADING POINTS				
#	STATION	OFFSET	ELEV	DESCRIPTION
101	4+66.56	10.34' RT	390.05	RAMP
102	4+76.16	6.83' RT	389.21	PC
103	4+86.56	10.32' RT	388.84	LANDING, BOC
104	4+66.56	18.34' RT	390.17	RAMP
105	4+93.72	18.31' RT	388.69	LANDING, BOC
106	4+96.18	26.88' RT	388.91	PT
107	4+96.13	44.74' RT	389.57	MATCH EXISTING

RAMP 2 GRADING POINTS				
#	STATION	OFFSET	ELEV	DESCRIPTION
201	5+38.85	18.23' RT	386.52	RAMP, PC
202	5+46.58	10.25' RT	386.53	RAMP, BOC
203	5+56.98	6.77' RT	386.25	PT
204	5+59.58	10.28' RT	386.69	LANDING
205	5+59.56	18.28' RT	386.81	LANDING

CURVE TABLE				
CURVE	DELTA	RADIUS	TANGENT	LENGTH
R1	90°12'17"	20.00'	20.07'	31.49'
R2	64°50'58"	20.00'	12.70'	22.64'

**GENERAL NOTES**

- CURB RAMPS SHALL BE CONSTRUCTED TO MEET RUNNING AND CROSS SLOPES SHOWN.
- ALL RAMPS AND SIDEWALKS SHALL BE COMPLIANT WITH CURRENT ADA STANDARDS. COMPLIANCE SHALL BE CHECKED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER WHEN FORMS ARE SET AND WHEN CONCRETE IS POURED. ANY GRADING MODIFICATIONS REQUIRED FOR ADA COMPLIANCE SHALL BE APPROVED BY THE ENGINEER.
- USE RADIUS DETECTABLE WARNING SURFACE (DWS) WHERE APPLICABLE. DWS SHALL BE INSTALLED PER WSDOT STD PLAN F-45.10.
- CONNECTION BETWEEN PEDESTRIAN CURB AND CURB AND GUTTER SHALL CONFORM TO WSDOT STANDARD PLANS.
- TOP OF PEDESTRIAN CURB SHALL BE 0.5' ABOVE CURB RAMP, LANDING, OR SIDEWALK FINISHED GRADE, UNLESS OTHERWISE NOTED.
- GRADE EXISTING OR FINISHED GROUND TO DRAIN BEHIND PEDESTRIAN CURB, WHERE APPLICABLE.

NO.	DATE	BY	APPR.	REVISIONS

Approved By		91AK020200RAMP01.dwg
ENGINEERING MANAGER	DATE	FILENAME DPY 4/24
PROJECT MANAGER	DATE	DESIGNED BY AC 4/24
PROJECT ENGINEER	DATE	DRAWN BY KA 4/24
	DATE	CHECKED BY 



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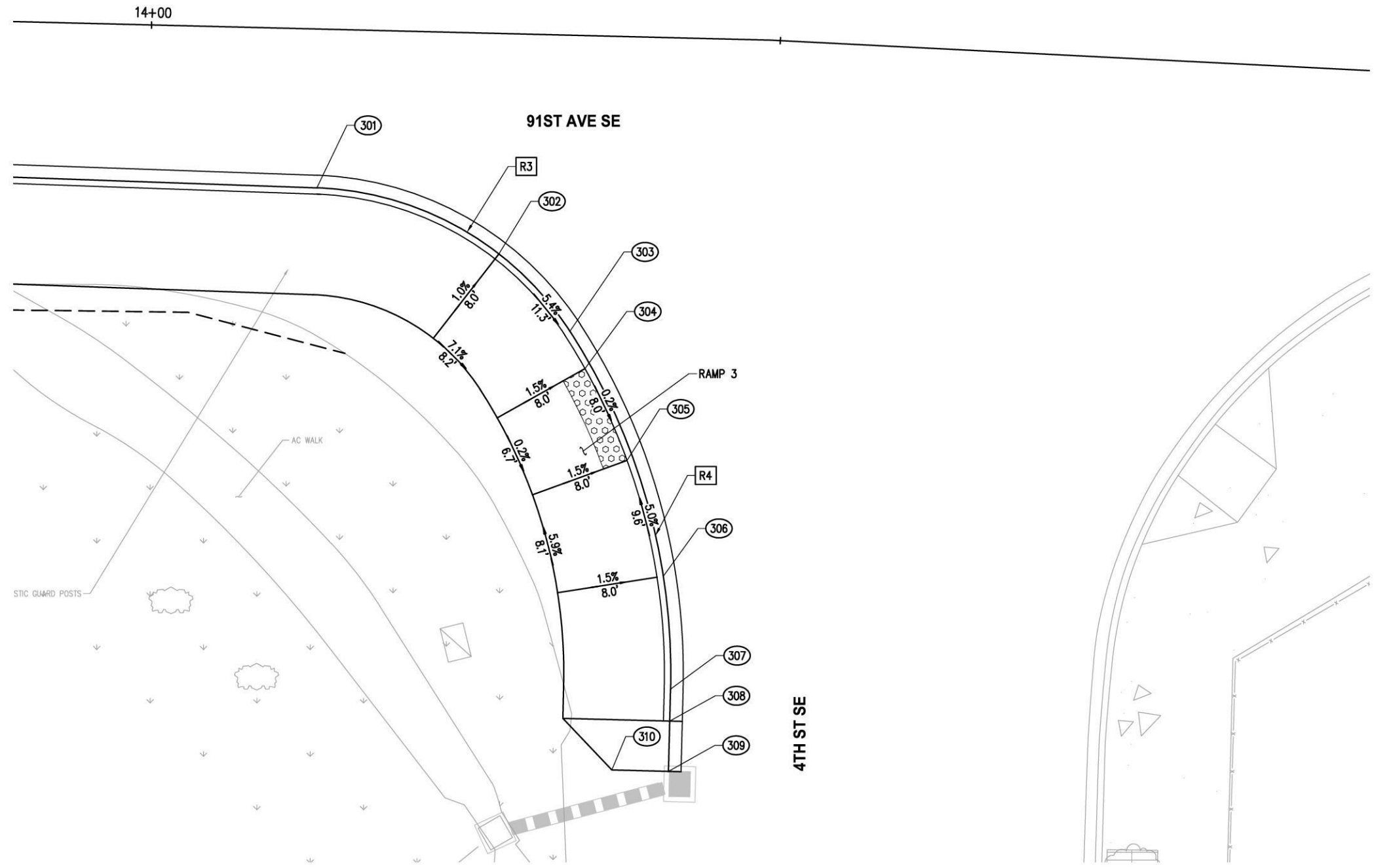
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CITY OF LAKE STEVENS  
91ST AVE SE SIDEWALK  
IMPROVEMENTS PHASE 1

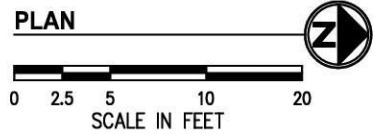
CURB RAMP GRADING PLAN  
7TH ST SE

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RAMP 3 GRADING POINTS				
#	STATION	OFFSET	ELEV	DESCRIPTION
301	14+13.45	12.63' RT	391.62	PC
302	14+28.05	17.52' RT	391.27	RAMP
303	14+33.84	23.54' RT	391.16	PCC
304	14+35.11	26.47' RT	391.16	LANDING, BOC
305	14+38.63	33.69' RT	391.14	LANDING, BOC
306	14+41.74	42.82' RT	391.12	RAMP
307	14+42.53	51.78' RT	391.10	PT
308	14+42.53	54.32' RT	391.10	TRANSITION PANEL
309	14+42.53	58.32' RT	391.10	MATCH EXISTING
310	14+38.03	58.32' RT	390.99	MATCH EXISTING, AP

CURVE TABLE				
CURVE	DELTA	RADIUS	TANGENT	LENGTH
R3	55°04'41"	25.00'	13.04'	24.03'
R4	34°22'39"	50.00'	15.47'	30.00'



**GENERAL NOTES**

1. FOR GENERAL NOTES, SEE SHEET 23.

NO.	DATE	BY	APPR.	REVISIONS

Approved By		91AK020200RAMP01.dwg
ENGINEERING MANAGER	DATE	FILENAME
PROJECT MANAGER	DATE	DPY
PROJECT ENGINEER	DATE	DESIGNED BY
		AC
		DRAWN BY
		KA
		CHECKED BY



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CITY OF LAKE STEVENS  
91ST AVE SE SIDEWALK  
IMPROVEMENTS PHASE 1

CURB RAMP GRADING PLAN 4TH ST SE	
KPG PROJECT No. 91AK020200	SHT 24 OF 42

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2ND PL SE



CURVE TABLE				
CURVE	DELTA	RADIUS	TANGENT	LENGTH
R5	39°44'38"	31.00'	11.20'	21.50'

RAMP 9 GRADING POINTS				
#	STATION	OFFSET	ELEV	DESCRIPTION
900	19+82.27	52.67' LT		MATCH EXISTING, PC
901	19+86.93	38.69' LT	385.66	RAMP
902	19+90.62	33.97' LT	385.74	RAMP
903	19+99.20	27.60' LT	385.91	MATCH EXISTING, PT
904	19+87.73	52.90' LT		MATCH EXISTING, BOW
905	19+91.74	38.82' LT	385.73	AP
906	19+94.90	41.25' LT	385.79	LANDING, BOW
907	19+96.38	34.11' LT	385.83	AP
908	19+98.86	37.25' LT	385.89	LANDING, BOW
909	20+12.68	31.42' LT		MATCH EXISTING, BOW
910	20+12.80	25.86' LT		MATCH EXISTING

**GENERAL NOTES**

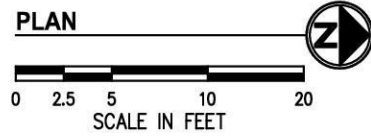
- FOR GENERAL NOTES, SEE SHEET 23.

**NOTE:**  
 EXISTING SURVEY AT CURBLINE ONLY. GRADING BEHIND CURBLINE IS APPROXIMATE. CONTRACTOR TO CONFIRM GRADING AND RAMP LAYOUT IN THE FIELD FOLLOWING ADA STANDARDS. SEE EXISTING GRAPHIC, THIS SHEET.



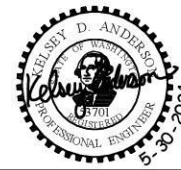
91ST AVE SE

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NO.	DATE	BY	APPR.	REVISIONS

Approved By		91AK020200RAMP01.dwg	
ENGINEERING MANAGER	DATE	FILENAME	DPY
PROJECT MANAGER	DATE	DESIGNED BY	4/24
PROJECT ENGINEER	DATE	AC	4/24
		DRAWN BY	KA
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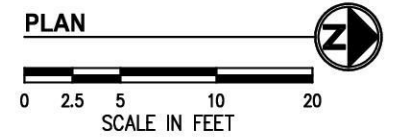
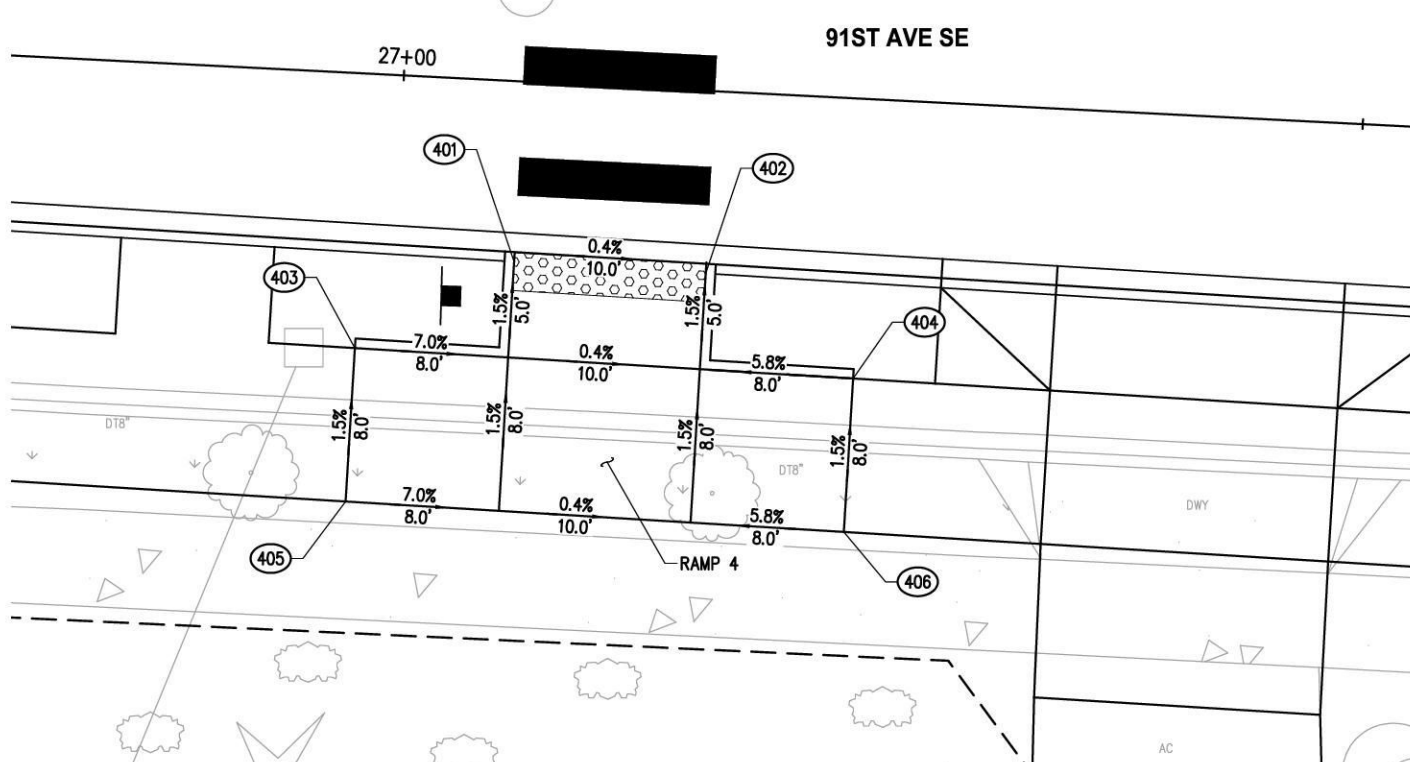
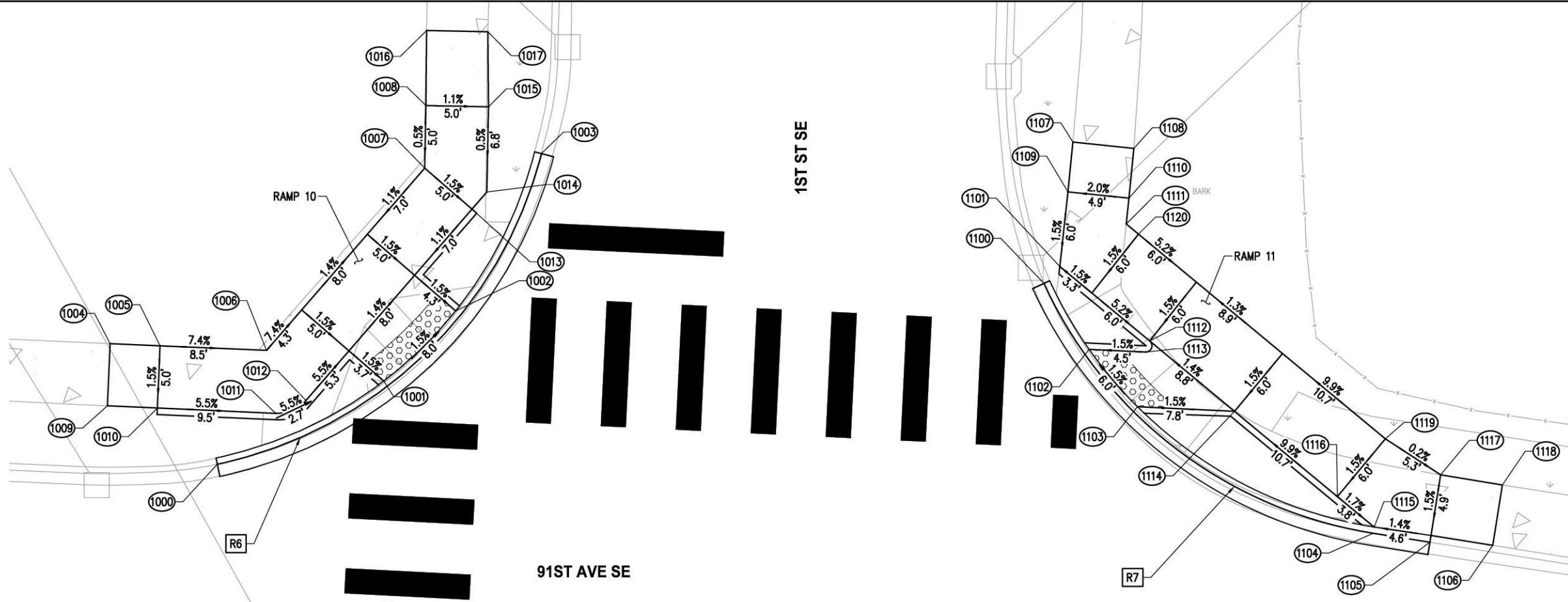
**CITY OF LAKE STEVENS  
 91ST AVE SE SIDEWALK  
 IMPROVEMENTS PHASE 1**

CURB RAMP GRADING PLAN 2ND PL SE	
KPG PROJECT No. 91AK020200	SHT 25 OF 42

**GENERAL NOTES**

1. FOR GENERAL NOTES, SEE SHEET 23.

CURVE TABLE				
CURVE	DELTA	RADIUS	TANGENT	LENGTH
R6	63°41'52"	34.00'	21.12'	37.80'
R7	56°19'13"	35.00'	18.73'	34.40'



RAMP 10 GRADING POINTS				
#	STATION	OFFSET	ELEV	DESCRIPTION
1000	26+95.56	27.63' LT	367.51	MATCH EXISTING
1001	27+08.51	34.94' LT	367.05	RAMP, BOC
1002	27+13.96	40.84' LT	366.93	RAMP, BOC
1003	27+20.16	53.75' LT	366.43	MATCH EXISTING
1004	26+86.51	36.83' LT	368.19	MATCH EXISTING, BOW
1005	26+90.51	36.86' LT	368.13	LANDING, BOW
1006	26+99.02	36.92' LT	367.50	AP
1007	27+10.91	52.12' LT	367.15	AP
1008	27+10.75	57.11' LT	367.17	TRANSITION PANEL, BOW
1009	26+86.54	31.85' LT	368.13	MATCH EXISTING
1010	26+90.54	31.87' LT	368.06	LANDING
1011	27+00.01	31.93' LT	367.54	PT
1012	27+02.36	33.09' LT	367.39	PC, R=3.0'
1013	27+14.85	49.03' LT	367.07	RAMP
1014	27+15.96	50.46' LT	367.08	PT
1015	27+15.75	57.27' LT	367.11	LANDING
1016	27+10.49	63.11' LT	367.24	MATCH EXISTING, BOW
1017	27+15.40	63.26' LT	367.11	MATCH EXISTING

RAMP 4 GRADING POINTS				
#	STATION	OFFSET	ELEV	DESCRIPTION
401	27+06.22	9.40' RT	367.94	LANDING, BOC
402	27+16.22	9.50' RT	367.90	LANDING, BOC
403	26+98.17	14.31' RT	368.58	RAMP
404	27+24.17	14.58' RT	368.44	RAMP
405	26+98.09	22.31' RT	368.70	RAMP, BOW
406	27+24.09	22.58' RT	368.56	RAMP, BOW

RAMP 11 GRADING POINTS				
#	STATION	OFFSET	ELEV	DESCRIPTION
1100	27+60.80	45.42' LT	365.95	MATCH EXISTING
1101	27+62.00	46.84' LT	366.53	AP
1102	27+64.67	40.34' LT	366.18	RAMP, BOC
1103	27+68.76	35.96' LT	366.27	RAMP, BOC
1104	27+88.09	26.81' LT	366.88	PCC
1105	27+92.66	26.32' LT	366.91	MATCH EXISTING, PT
1106	27+97.68	26.33' LT	367.48	MATCH EXISTING
1107	27+62.53	56.83' LT	366.93	MATCH EXISTING
1108	27+67.43	56.57' LT	367.02	MATCH EXISTING, BOW
1109	27+62.34	52.83' LT	366.62	LANDING
1110	27+67.23	52.58' LT	366.72	LANDING
1111	27+67.12	50.50' LT	366.69	AP
1112	27+69.47	41.26' LT	366.27	PC, R=0.25'
1113	27+69.20	40.36' LT	366.25	PT
1114	27+76.53	35.98' LT	366.39	AP
1115	27+88.14	27.31' LT	367.38	AP
1116	27+85.09	29.59' LT	367.45	LANDING
1117	27+93.24	31.75' LT	367.53	AP
1118	27+98.20	31.19' LT	367.62	MATCH EXISTING, BOW
1119	27+88.68	34.40' LT	367.54	LANDING
1120	27+68.15	49.74' LT	366.67	LANDING

NO.	DATE	BY	APPR.	REVISIONS

Approved By		9LAK020200RAMP02.dwg
ENGINEERING MANAGER	DATE	DPY 4/24
PROJECT MANAGER	DATE	AC 4/24
PROJECT ENGINEER	DATE	KA 4/24
	DATE	CHECKED BY



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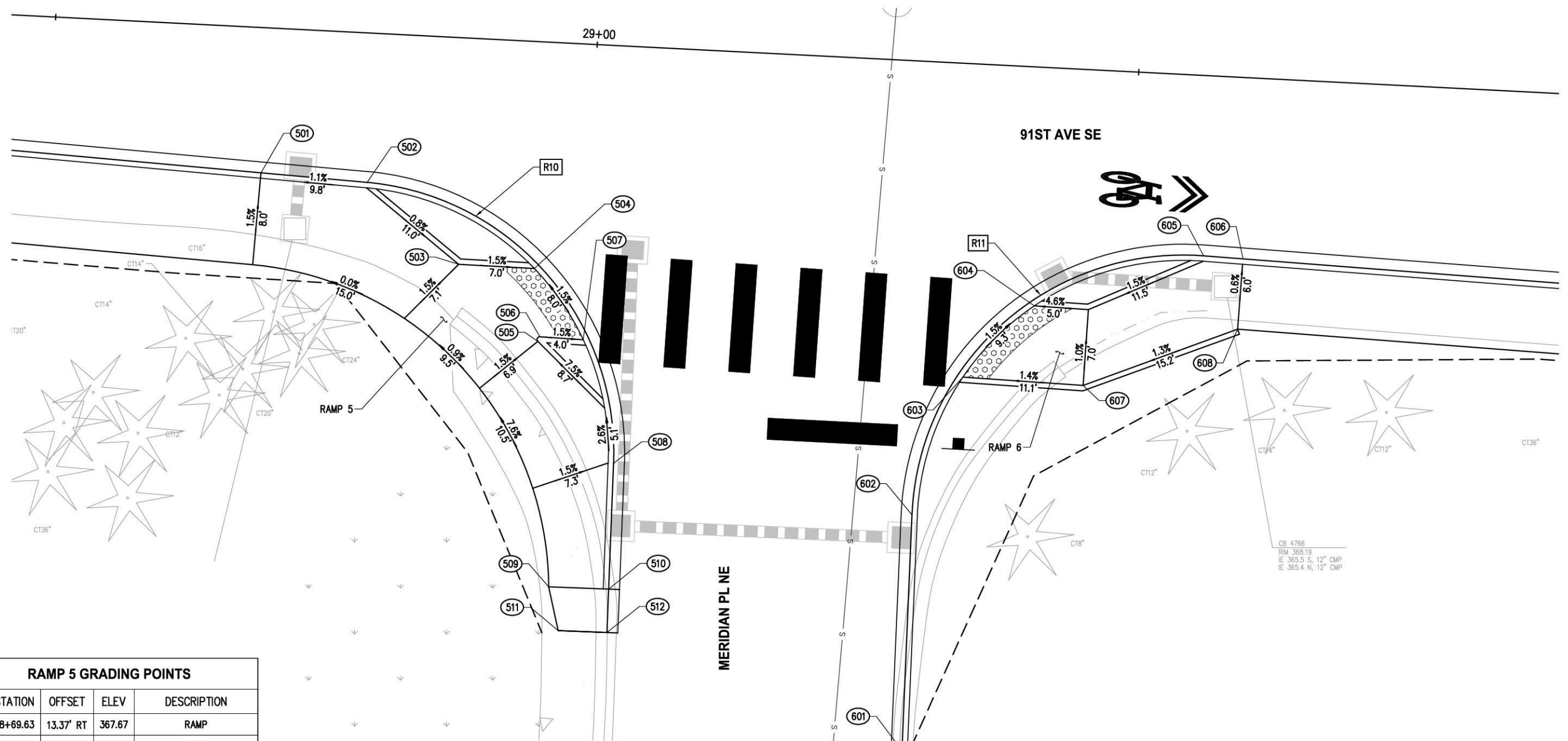


**CITY OF LAKE STEVENS  
91ST AVE SE SIDEWALK  
IMPROVEMENTS PHASE 1**

**CURB RAMP GRADING PLAN  
1ST ST SE**  
KPG PROJECT No. 9LAK020200 SHT 26 OF 42

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RAMP 5 GRADING POINTS				
#	STATION	OFFSET	ELEV	DESCRIPTION
501	28+69.63	13.37' RT	367.67	RAMP
502	28+79.45	13.76' RT	367.78	PC
503	28+88.26	20.87' RT	368.19	AP
504	28+95.25	20.90' RT	368.09	LANDING, BOC
505	28+95.92	27.59' RT	368.27	PC, R=0.25'
506	28+96.09	27.15' RT	368.27	PT
507	29+00.09	27.23' RT	368.21	LANDING, BOC
508	29+03.46	38.45' RT	368.56	PT
509	28+98.07	50.12' RT	368.89	AP, BOW
510	29+03.60	50.05' RT	368.81	TRANSITION PANEL
511	28+99.14	54.11' RT	369.34	MATCH EXISTING, AP, BOW
512	29+03.64	54.05' RT	368.94	MATCH EXISTING

RAMP 6 GRADING POINTS				
#	STATION	OFFSET	ELEV	DESCRIPTION
601	29+31.36	63.53' RT	369.35	MATCH EXISTING
602	29+31.18	41.80' RT	368.84	PC
603	29+35.23	28.88' RT	368.60	RAMP, BOC
604	29+41.47	22.00' RT	368.46	RAMP, BOC
605	29+56.83	16.60' RT	368.36	PT
606	29+60.47	16.69' RT	368.41	LANDING
607	29+46.34	29.09' RT	368.75	AP, BOW
608	29+60.30	23.19' RT	368.95	AP, BOW

CURVE TABLE				
CURVE	DELTA	RADIUS	TANGENT	LENGTH
R10	87°04'10"	25.00'	23.75'	37.99'
R11	91°57'41"	25.00'	25.87'	40.13'

**GENERAL NOTES**

- FOR GENERAL NOTES, SEE SHEET 23.

NO.	DATE	BY	APPR.	REVISIONS

Approved By

ENGINEERING MANAGER DATE

PROJECT MANAGER DATE

PROJECT ENGINEER DATE



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**PSOMAS**

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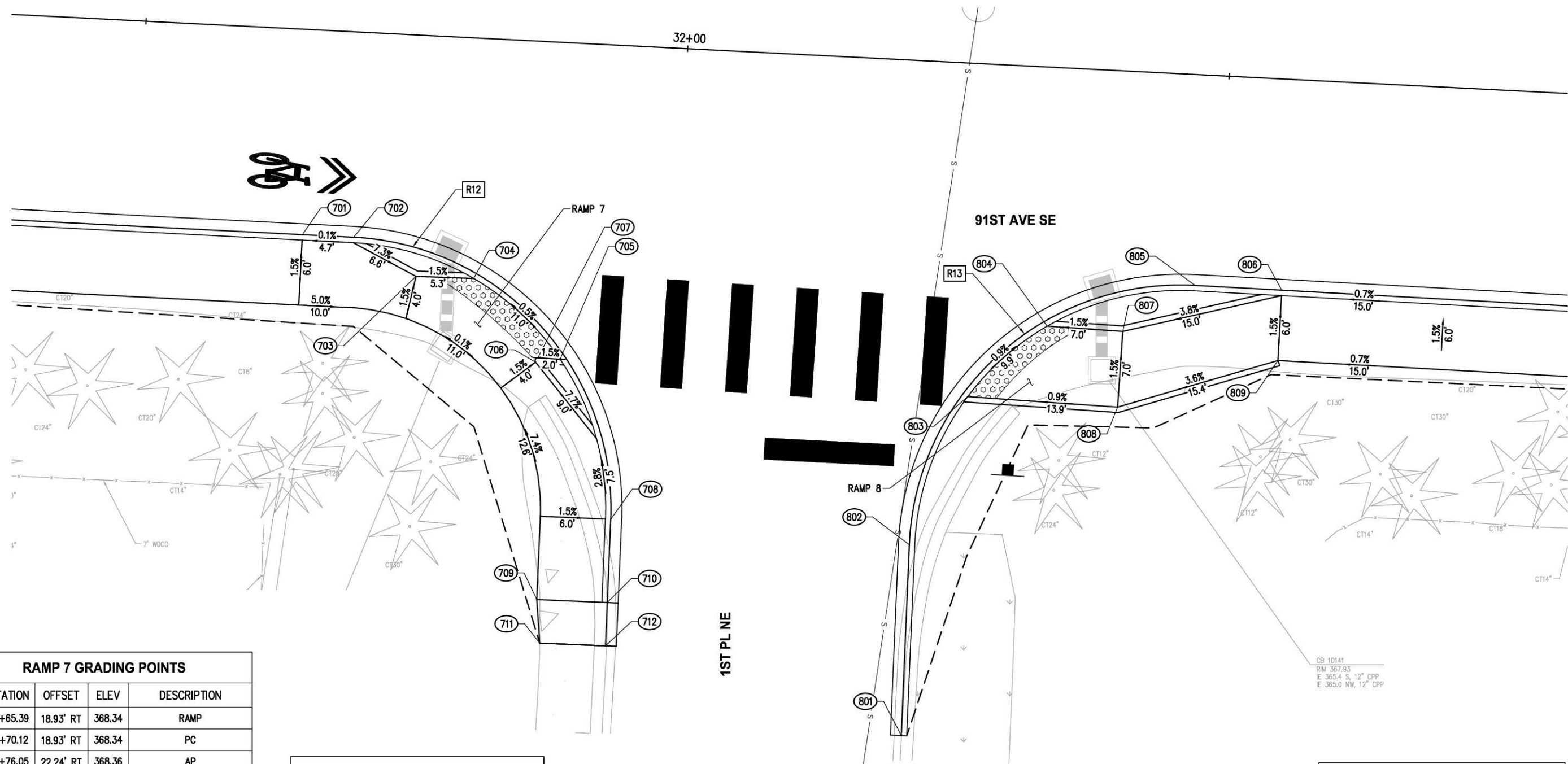


**CITY OF LAKE STEVENS**  
**91ST AVE SE SIDEWALK**  
**IMPROVEMENTS PHASE 1**

**CURB RAMP GRADING PLAN**  
**MERIDIAN PL NE**

KPG PROJECT No. 91AK020200 SHT 27 OF 42

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RAMP 7 GRADING POINTS				
#	STATION	OFFSET	ELEV	DESCRIPTION
701	31+65.39	18.93' RT	368.34	RAMP
702	31+70.12	18.93' RT	368.34	PC
703	31+76.05	22.24' RT	368.36	AP
704	31+81.37	22.16' RT	368.28	LANDING, BOC
705	31+89.70	29.20' RT	368.33	LANDING, BOC
706	31+87.46	29.59' RT	368.37	PC, R=0.25'
707	31+87.65	29.17' RT	368.36	PT
708	31+95.12	43.71' RT	368.78	RAMP, PT
709	31+88.69	51.45' RT	369.14	AP, BOW
710	31+95.19	51.39' RT	369.05	TRANSITION PANEL
711	31+89.15	55.45' RT	369.50	MATCH EXISTING, AP, BOW
712	31+95.22	55.39' RT	369.16	MATCH EXISTING

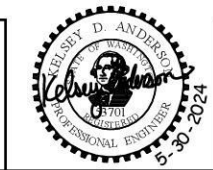
RAMP 8 GRADING POINTS				
#	STATION	OFFSET	ELEV	DESCRIPTION
801	32+22.89	62.27' RT	369.27	MATCH EXISTING
802	32+22.73	44.65' RT	368.68	PC
803	32+27.41	30.74' RT	368.35	LANDING, BOC
804	32+34.40	23.87' RT	368.27	LANDING, BOC
805	32+47.84	19.43' RT	368.43	PT
806	32+55.84	19.46' RT	368.44	RAMP
807	32+41.39	24.00' RT	368.37	AP
808	32+41.26	31.00' RT	368.48	AP, BOW
809	32+55.81	25.96' RT	369.03	AP, BOW

CURVE TABLE				
CURVE	DELTA	RADIUS	TANGENT	LENGTH
R12	89°29'12"	25.00'	24.78'	39.05'
R13	90°45'49"	25.00'	25.34'	39.60'

**GENERAL NOTES**  
 1. FOR GENERAL NOTES, SEE SHEET 23.

NO.	DATE	BY	APPR.	REVISIONS

Approved By _____  
 ENGINEERING MANAGER DATE _____  
 PROJECT MANAGER DATE _____  
 PROJECT ENGINEER DATE _____



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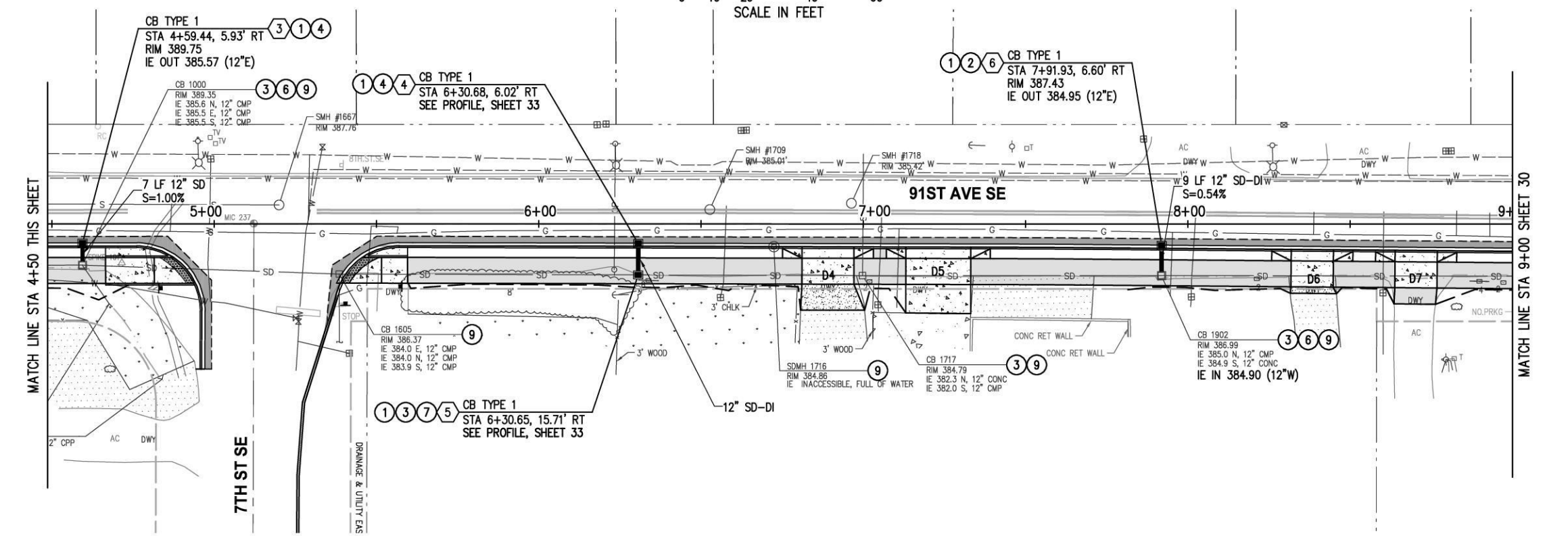
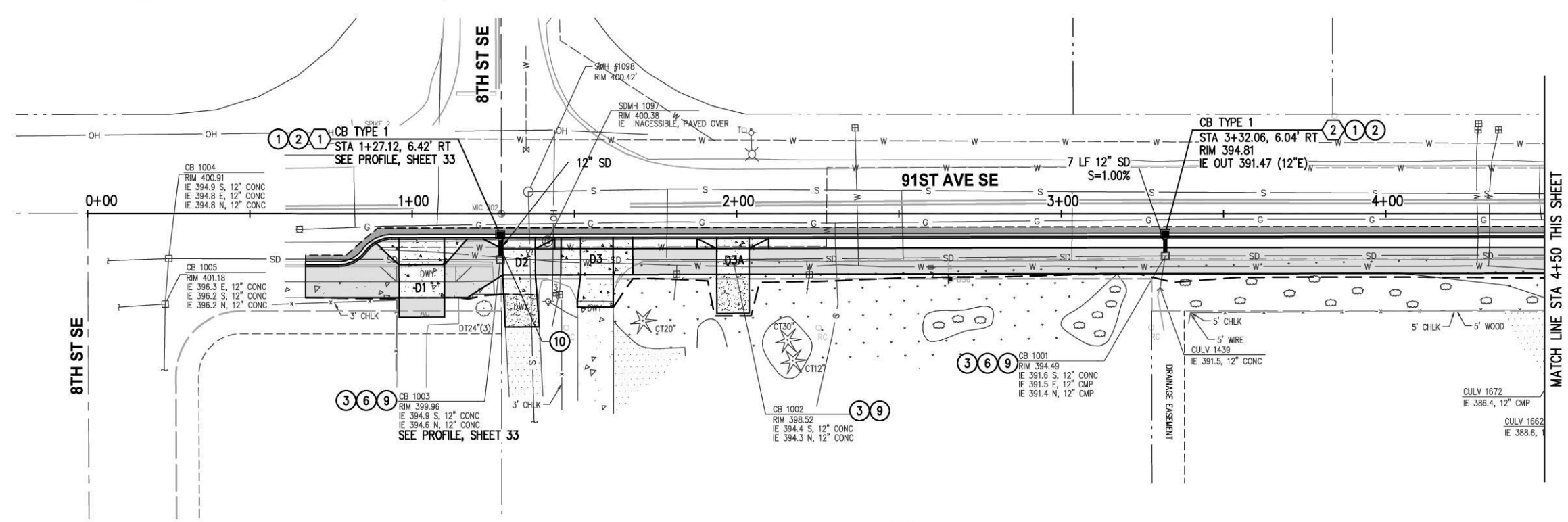
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**CITY OF LAKE STEVENS  
 91ST AVE SE SIDEWALK  
 IMPROVEMENTS PHASE 1**

**CURB RAMP GRADING PLAN  
 1ST PL NE**  
 KPG PROJECT No. 9LAK020200 SHT 28 OF 42

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- ### GENERAL NOTES
- SEE CITY OF LAKE STEVENS EDDS, SECTION 5-118 FOR GENERAL DRAINAGE NOTES.
  - EXISTING UTILITY LOCATIONS AND DEPTHS ARE BASED UPON SURVEY DATA AND BEST AVAILABLE INFORMATION. CONTRACTOR SHALL FIELD LOCATE AND VERIFY UTILITY LOCATIONS AND DEPTHS AT CROSSING LOCATION(S) PRIOR TO CONSTRUCTION.
  - PIPES LABELED "SD" SHALL BE PVC (SDR 35) UNLESS OTHERWISE NOTED.
  - ALL STORM DRAINAGE PIPE SHALL HAVE WATERTIGHT JOINTS.
  - CATCH BASINS SHALL BE OF THE TYPE INDICATED ON THE PLAN OR PROFILE, CONFORMING TO THE FOLLOWING STANDARD PLANS:  
A. TYPE 1 - COLS EDDS STD PLAN 5-050
  - CATCH BASIN GRATES SHALL BE OF THE TYPE INDICATED ON THE PLAN OR PROFILE, CONFORMING TO THE FOLLOWING STANDARD PLANS:  
A. VANED GRATE - COLS EDDS STD PLAN 5-130  
B. STANDARD GRATE - COLS EDDS STD PLAN 5-140  
C. SOLID METAL COVER - COLS EDDS STD PLAN 5-180
  - STATION/OFFSET LOCATION CALLOUTS AND PROVIDED RIM ELEVATIONS ARE ASSOCIATED WITH THE CENTER OF THE DRAINAGE STRUCTURE.
  - ALL PENETRATIONS TO EXISTING STORM DRAINAGE STRUCTURES SHALL BE ACCOMPLISHED BY CORING UNLESS THE STRUCTURE HAS KNOCKOUTS OR AN EXISTING CORE DRILLED PENETRATION AT THE CORRECT INVERT ELEVATION(S).
  - TYPICAL TRENCH AND BACKFILL FOR STORM DRAINAGE PIPE INSTALLATION SHALL BE PER COLS EDDS STD PLAN 8-020 AND THE CITY'S GENERAL DRAINAGE NOTES UNLESS OTHERWISE NOTED IN THE PROJECT PLANS AND SPECIFICATIONS.
  - PER PSE POT HOLE DATA DATED MAY 2024, GROUNDWATER WAS ENCOUNTERED AT 30-INCHES BELOW EXISTING GRADE. CONTRACTOR SHALL NOTIFY THE CITY AND SUBMIT A DEWATERING PLAN SHOULD SHALLOW GROUNDWATER BE ENCOUNTERED DURING CONSTRUCTION.

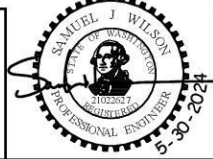
- ### CONSTRUCTION NOTES
- INSTALL CATCH BASIN TYPE 1 PER COLS EDDS STD PLAN 5-050.
  - FURNISH STRUCTURE WITH RECTANGULAR FRAME AND VANED GRATE PER COLS EDDS STD PLAN 5-130.
  - FURNISH STRUCTURE WITH RECTANGULAR FRAME AND SOLID METAL COVER PER COLS EDDS STD PLAN 5-180.
  - FURNISH STRUCTURE WITH THROUGH CURB INLET FRAME AND GRATE PER COLS EDDS STD PLAN 5-150.
  - CONNECT NEW STORM PIPE TO EXISTING DRAINAGE STRUCTURE.
  - CONNECT EXISTING STORM PIPE TO NEW DRAINAGE STRUCTURE.
  - ADJUST DRAINAGE STRUCTURE TO GRADE.
  - POT HOLE UTILITY.

- ### LEGEND
- STORM DRAIN STRUCTURE ID NUMBER
  - STORM DRAIN PIPE
  - CATCH BASIN TYPE 1
  - REMOVE EXISTING DRAIN PIPE

NO.	DATE	BY	APPR.	REVISIONS

Approved By

ENGINEERING MANAGER	DATE	DESIGNED BY	DATE
PROJECT MANAGER	DATE	DRAWN BY	DATE
PROJECT ENGINEER	DATE	CHECKED BY	DATE



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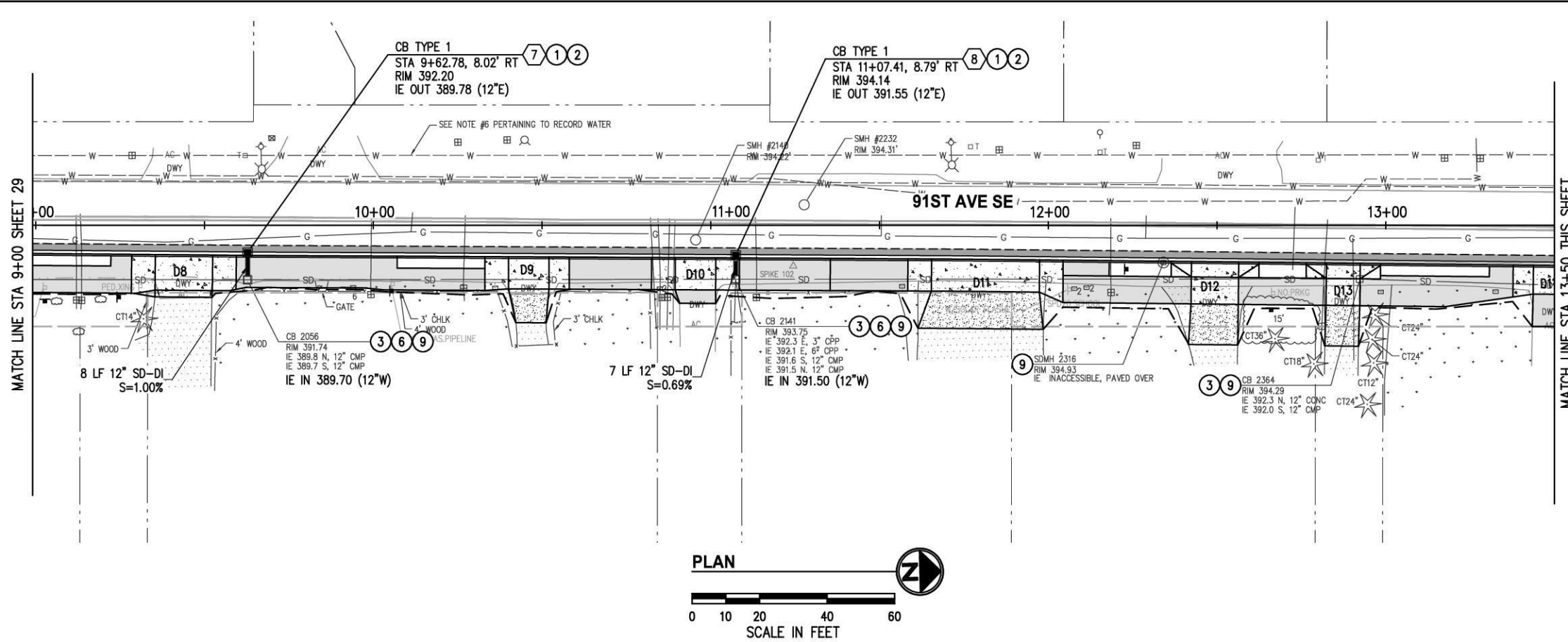
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**CITY OF LAKE STEVENS**  
**91ST AVE SE SIDEWALK IMPROVEMENTS PHASE 1**

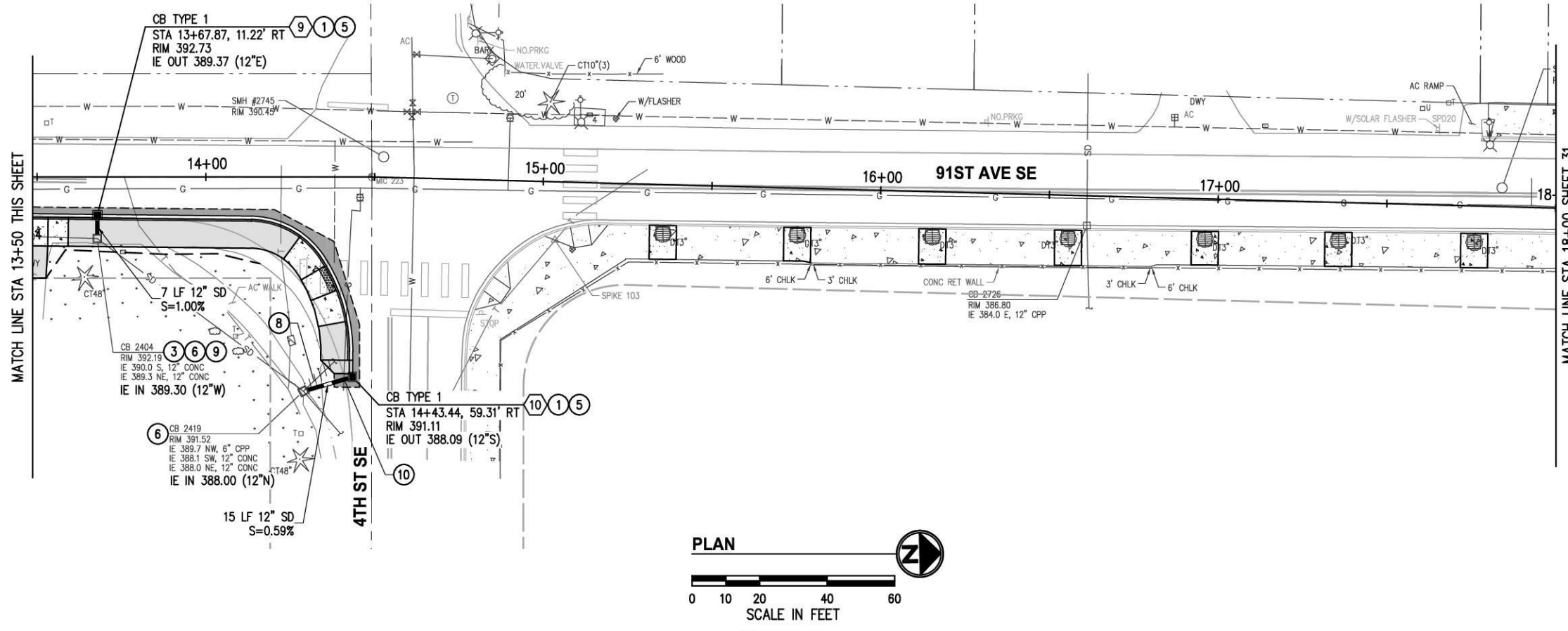
STORM DRAINAGE PLAN STA 0+00 TO STA 9+00	
KPG PROJECT No. 9\AK020200	SHT 29 OF 42

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**GENERAL NOTES**

- SEE CITY OF LAKE STEVENS EDDS, SECTION 5-118 FOR GENERAL DRAINAGE NOTES.
- EXISTING UTILITY LOCATIONS AND DEPTHS ARE BASED UPON SURVEY DATA AND BEST AVAILABLE INFORMATION. CONTRACTOR SHALL FIELD LOCATE AND VERIFY UTILITY LOCATIONS AND DEPTHS AT CROSSING LOCATION(S) PRIOR TO CONSTRUCTION.
- PIPES LABELED "SD" SHALL BE PVC (SDR 35) UNLESS OTHERWISE NOTED.
- ALL STORM DRAINAGE PIPE SHALL HAVE WATERTIGHT JOINTS.
- CATCH BASINS SHALL BE OF THE TYPE INDICATED ON THE PLAN OR PROFILE, CONFORMING TO THE FOLLOWING STANDARD PLANS:  
A. TYPE 1 - COLS EDDS STD PLAN 5-050
- CATCH BASIN GRATES SHALL BE OF THE TYPE INDICATED ON THE PLAN OR PROFILE, CONFORMING TO THE FOLLOWING STANDARD PLANS:  
A. VANED GRATE - COLS EDDS STD PLAN 5-130  
B. STANDARD GRATE - COLS EDDS STD PLAN 5-140  
C. SOLID METAL COVER - COLS EDDS STD PLAN 5-180
- STATION/OFFSET LOCATION CALLOUTS AND PROVIDED RIM ELEVATIONS ARE ASSOCIATED WITH THE CENTER OF THE DRAINAGE STRUCTURE.
- ALL PENETRATIONS TO EXISTING STORM DRAINAGE STRUCTURES SHALL BE ACCOMPLISHED BY CORING UNLESS THE STRUCTURE HAS KNOCKOUTS OR AN EXISTING CORE DRILLED PENETRATION AT THE CORRECT INVERT ELEVATION(S).
- TYPICAL TRENCH AND BACKFILL FOR STORM DRAINAGE PIPE INSTALLATION SHALL BE PER COLS EDDS STD PLAN 8-020 AND THE CITY'S GENERAL DRAINAGE NOTES UNLESS OTHERWISE NOTED IN THE PROJECT PLANS AND SPECIFICATIONS.
- PER PSE POT HOLE DATA DATED MAY 2024, GROUNDWATER WAS ENCOUNTERED AT 30-INCHES BELOW EXISTING GRADE. CONTRACTOR SHALL NOTIFY THE CITY AND SUBMIT A DEWATERING PLAN SHOULD SHALLOW GROUNDWATER BE ENCOUNTERED DURING CONSTRUCTION.



**CONSTRUCTION NOTES**

- INSTALL CATCH BASIN TYPE 1 PER COLS EDDS STD PLAN 5-050.
- FURNISH STRUCTURE WITH RECTANGULAR FRAME AND VANED GRATE PER COLS EDDS STD PLAN 5-130.
- FURNISH STRUCTURE WITH RECTANGULAR FRAME AND SOLID METAL COVER PER COLS EDDS STD PLAN 5-180.
- FURNISH STRUCTURE WITH RECTANGULAR FRAME AND STANDARD GRATE PER COLS EDDS STD PLAN 5-140.
- CONNECT NEW STORM PIPE TO EXISTING DRAINAGE STRUCTURE.
- REMOVE EXISTING DRAINAGE PIPE.
- ADJUST DRAINAGE STRUCTURE TO GRADE.
- POT HOLE UTILITY.

**LEGEND**

- STORM DRAIN STRUCTURE ID NUMBER
- STORM DRAIN PIPE
- CATCH BASIN TYPE 1
- REMOVE EXISTING DRAIN PIPE

NO.	DATE	BY	APPR	REVISIONS

Approved By		FILENAME
ENGINEERING MANAGER	DATE	9LAK020200STRM01.dwg
PROJECT MANAGER	DATE	DPY
PROJECT ENGINEER	DATE	DESIGNED BY
		AC
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		SW
		CHECKED BY
		DATE



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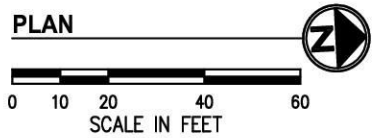
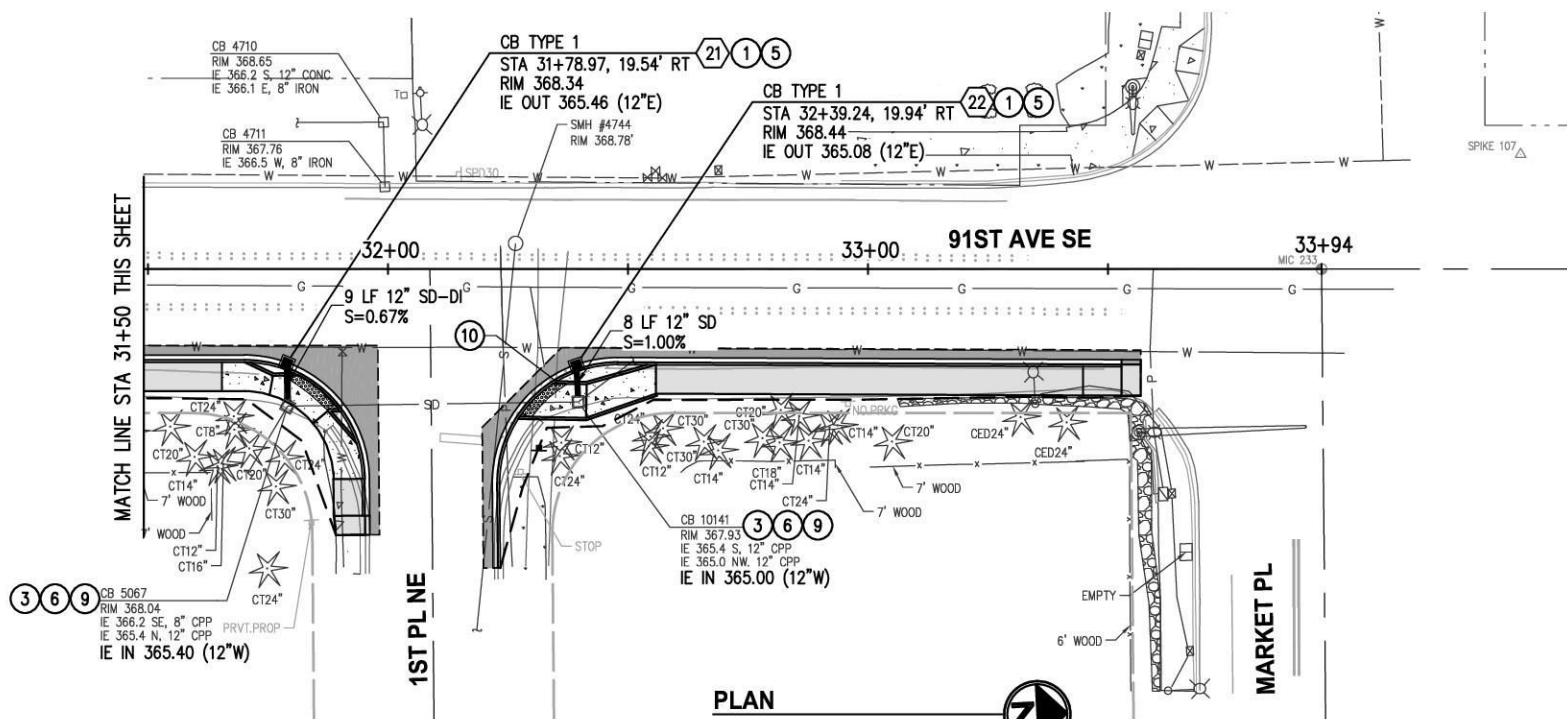
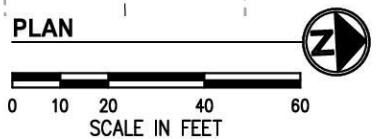
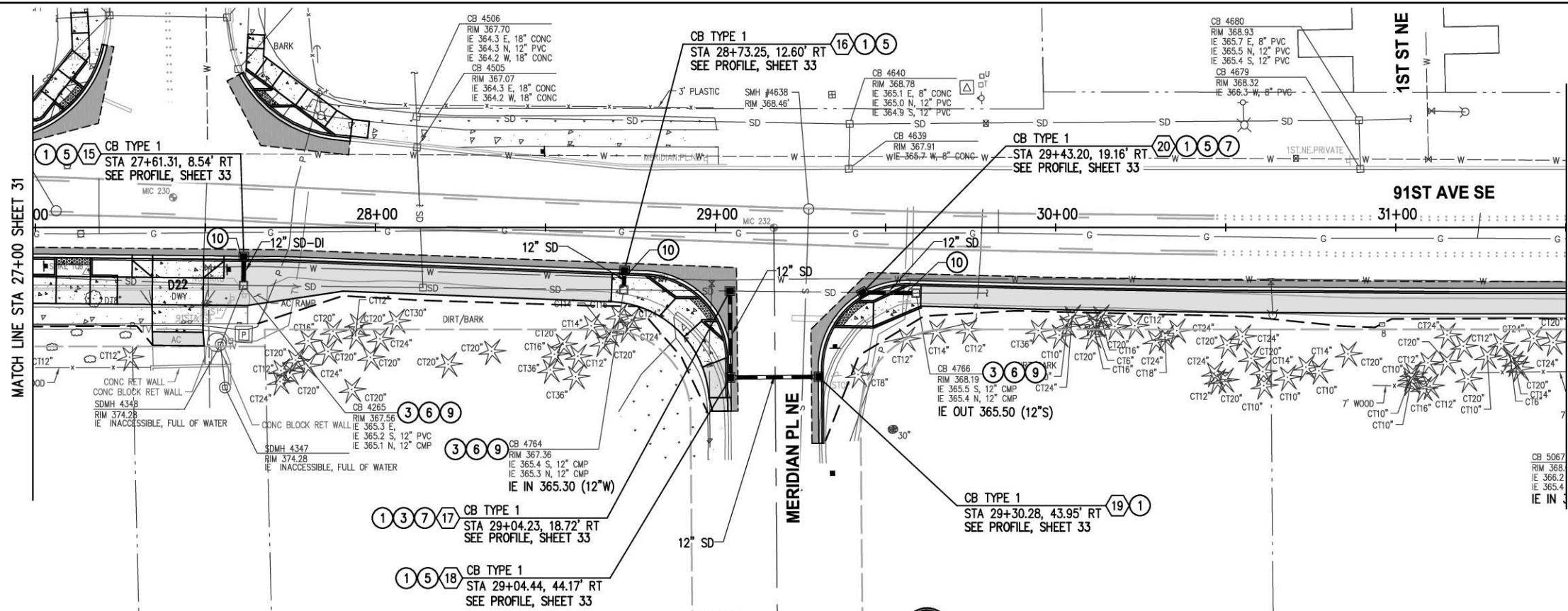


**CITY OF LAKE STEVENS**  
**91ST AVE SE SIDEWALK**  
**IMPROVEMENTS PHASE 1**

STORM DRAINAGE PLAN	
STA 9+00 TO STA 18+00	
KPG PROJECT No. 9LAK020200	SHT 30 OF 42



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**GENERAL NOTES**

1. SEE CITY OF LAKE STEVENS EDDS, SECTION 5-118 FOR GENERAL DRAINAGE NOTES.
2. EXISTING UTILITY LOCATIONS AND DEPTHS ARE BASED UPON SURVEY DATA AND BEST AVAILABLE INFORMATION. CONTRACTOR SHALL FIELD LOCATE AND VERIFY UTILITY LOCATIONS AND DEPTHS AT CROSSING LOCATION(S) PRIOR TO CONSTRUCTION.
3. PIPES LABELED "SD" SHALL BE PVC (SDR 35) UNLESS OTHERWISE NOTED.
4. ALL STORM DRAINAGE PIPE SHALL HAVE WATERTIGHT JOINTS.
5. CATCH BASINS SHALL BE OF THE TYPE INDICATED ON THE PLAN OR PROFILE, CONFORMING TO THE FOLLOWING STANDARD PLANS:  
A. TYPE 1 - COLS EDDS STD PLAN 5-050
6. CATCH BASIN GRATES SHALL BE OF THE TYPE INDICATED ON THE PLAN OR PROFILE, CONFORMING TO THE FOLLOWING STANDARD PLANS:  
A. VANED GRATE - COLS EDDS STD PLAN 5-130  
B. STANDARD GRATE - COLS EDDS STD PLAN 5-140  
C. SOLID METAL COVER - COLS EDDS STD PLAN 5-180
7. STATION/OFFSET LOCATION CALLOUTS AND PROVIDED RIM ELEVATIONS ARE ASSOCIATED WITH THE CENTER OF THE DRAINAGE STRUCTURE.
8. ALL PENETRATIONS TO EXISTING STORM DRAINAGE STRUCTURES SHALL BE ACCOMPLISHED BY CORING UNLESS THE STRUCTURE HAS KNOCKOUTS OR AN EXISTING CORE DRILLED PENETRATION AT THE CORRECT INVERT ELEVATION(S).
9. TYPICAL TRENCH AND BACKFILL FOR STORM DRAINAGE PIPE INSTALLATION SHALL BE PER COLS EDDS STD PLAN 8-020 AND THE CITY'S GENERAL DRAINAGE NOTES UNLESS OTHERWISE NOTED IN THE PROJECT PLANS AND SPECIFICATIONS.
10. PER PSE POT HOLE DATA DATED MAY 2024, GROUNDWATER WAS ENCOUNTERED AT 30-INCHES BELOW EXISTING GRADE. CONTRACTOR SHALL NOTIFY THE CITY AND SUBMIT A DEWATERING PLAN SHOULD SHALLOW GROUNDWATER BE ENCOUNTERED DURING CONSTRUCTION.

**CONSTRUCTION NOTES**

- ① INSTALL CATCH BASIN TYPE 1 PER COLS EDDS STD PLAN 5-050.
- ③ FURNISH STRUCTURE WITH RECTANGULAR FRAME AND SOLID METAL COVER PER COLS EDDS STD PLAN 5-180.
- ⑤ FURNISH STRUCTURE WITH RECTANGULAR FRAME AND STANDARD GRATE PER COLS EDDS STD PLAN 5-140.
- ⑥ CONNECT NEW STORM PIPE TO EXISTING DRAINAGE STRUCTURE.
- ⑦ CONNECT EXISTING STORM PIPE TO NEW DRAINAGE STRUCTURE.
- ⑨ ADJUST DRAINAGE STRUCTURE TO GRADE.
- ⑩ POT HOLE UTILITY.

**LEGEND**

- Ⓜ# STORM DRAIN STRUCTURE ID NUMBER
- SD — STORM DRAIN PIPE
- CATCH BASIN TYPE 1
- //// REMOVE EXISTING DRAIN PIPE

NO.	DATE	BY	APPR.	REVISIONS

Approved By		FILENAME
ENGINEERING MANAGER	DATE	91AK020200STRM01.dwg
PROJECT MANAGER	DATE	DPY
PROJECT ENGINEER	DATE	DESIGNED BY
		AC
		DRAWN BY
		SW
		CHECKED BY



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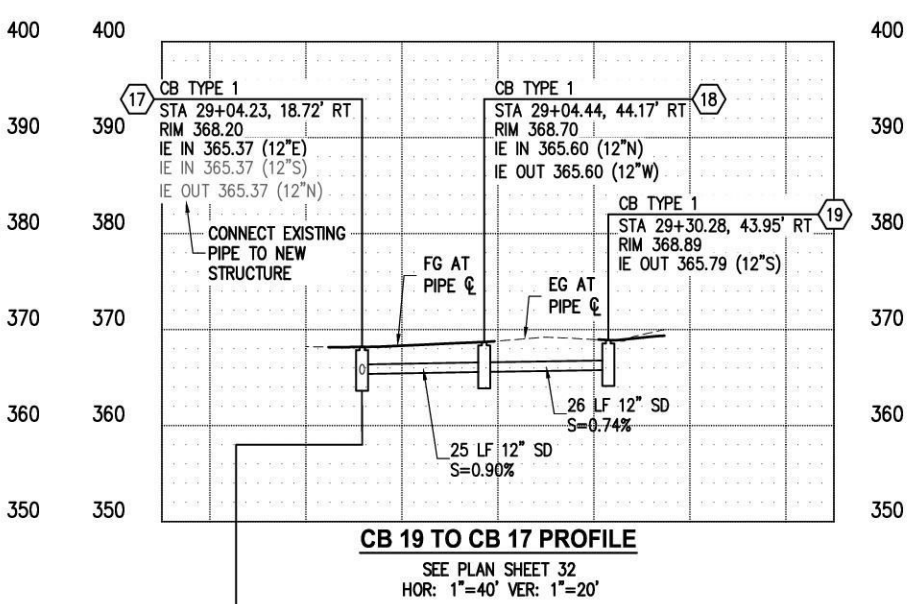
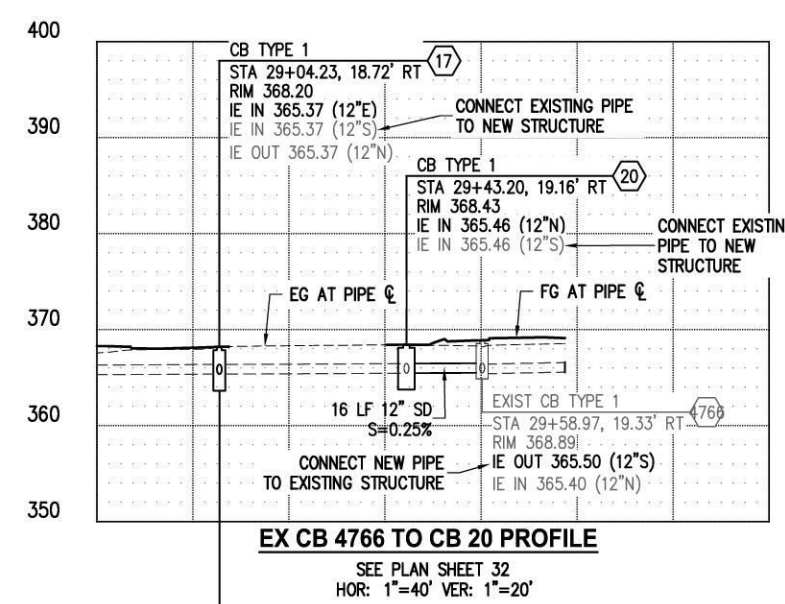
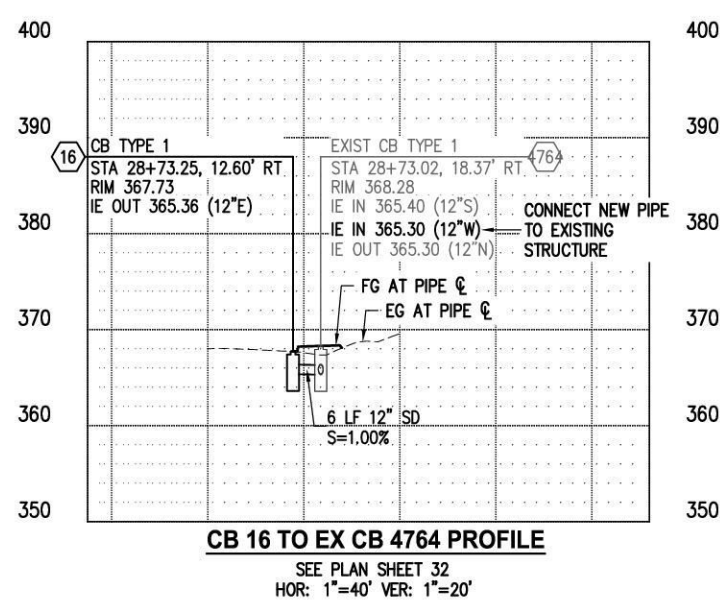
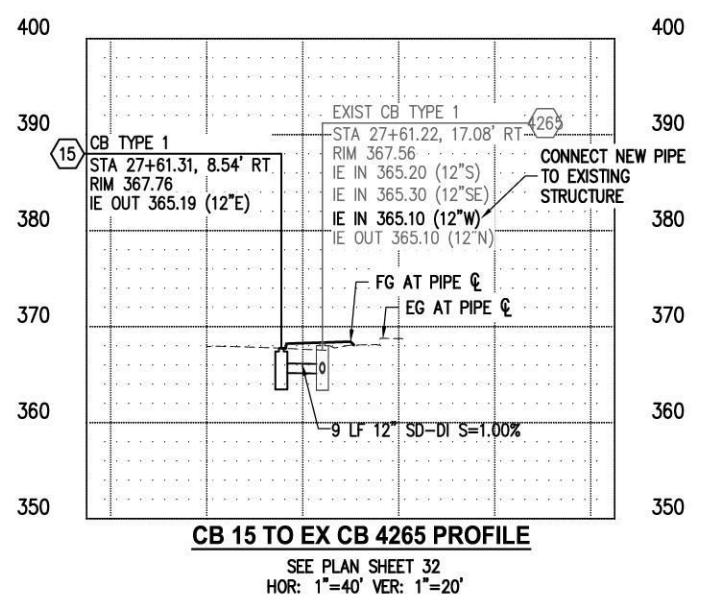
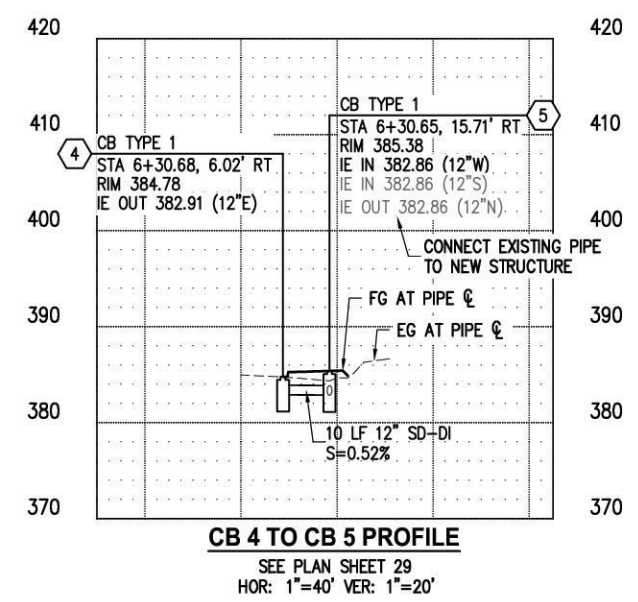
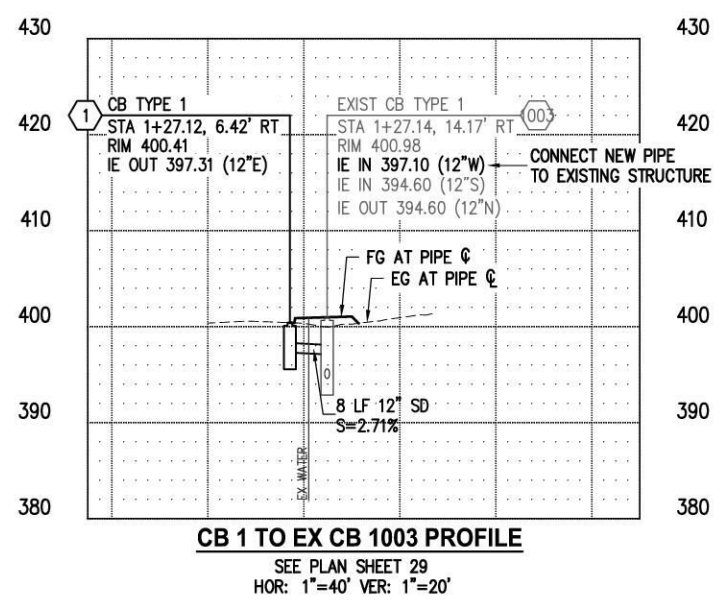
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**CITY OF LAKE STEVENS**  
**91ST AVE SE SIDEWALK**  
**IMPROVEMENTS PHASE 1**

STORM DRAINAGE PLAN	
STA 27+00 TO STA 33+94	
KPG PROJECT No. 91AK020200	SHT 32 OF 42

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**GENERAL NOTES**

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NO.	DATE	BY	APPR.	REVISIONS

Approved By

ENGINEERING MANAGER	DATE
PROJECT MANAGER	DATE
PROJECT ENGINEER	DATE



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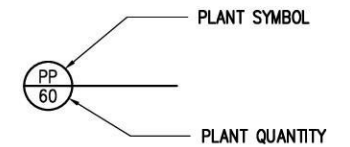
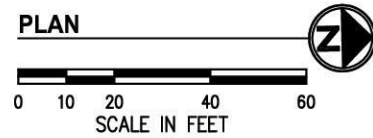
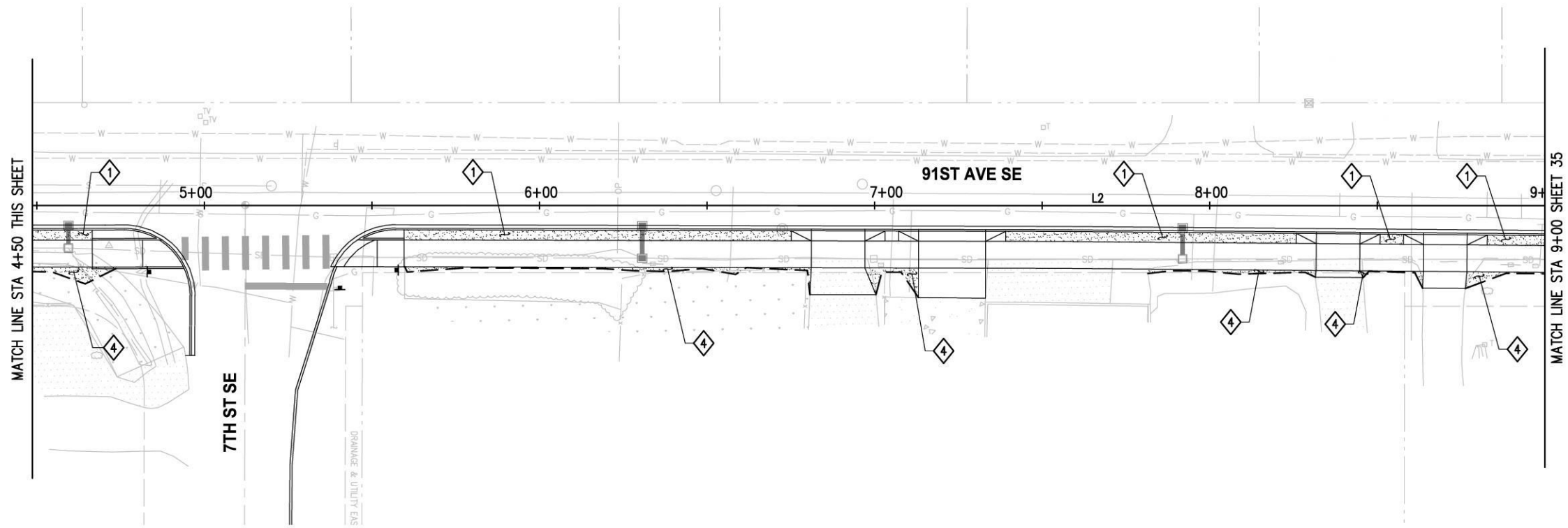
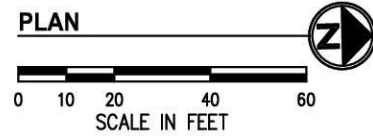
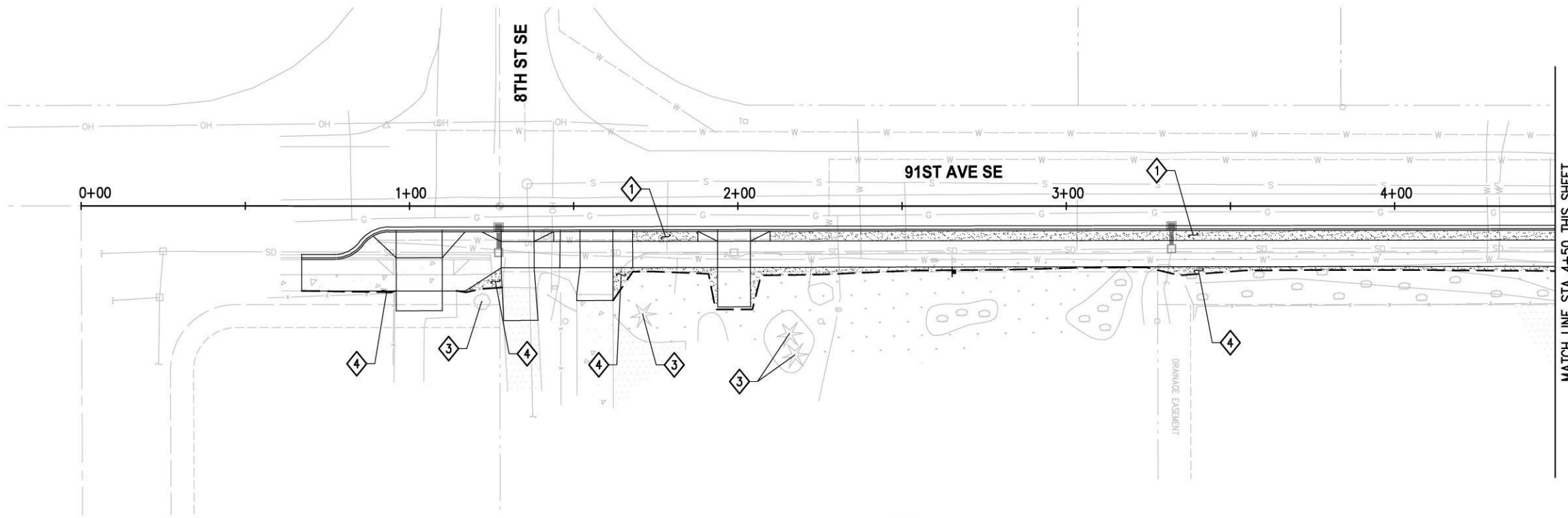


**CITY OF LAKE STEVENS**  
91ST AVE SE SIDEWALK IMPROVEMENTS PHASE 1

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**CONSTRUCTION NOTES**

- ① ROADWAY PLANTER TYPE 1; INSTALL 4" TOPSOIL TYPE A AND HYDROSEED WITH SEEDED LAWN MIX.
- ③ EXISTING TREE TO REMAIN; SAVE AND PROTECT PER DETAIL, SHEET 18.
- ④ BACK-OF-WALK LAWN RESTORATION; INSTALL 3" TOPSOIL TYPE A AND HYDROSEED ENTIRE DISTURBED AREA, TYP.



**SEE SHEET 38 FOR LANDSCAPE SCHEDULE, DETAILS AND GENERAL NOTES**

NO.	DATE	BY	APPR.	REVISIONS

Approved By		9LAK020200LS01.dwg
ENGINEERING MANAGER	DATE	MR 5/24
DESIGNED BY	DATE	MR 5/24
PROJECT MANAGER	DATE	CS 5/24
DRAWN BY	DATE	CHECKED BY
PROJECT ENGINEER	DATE	DATE



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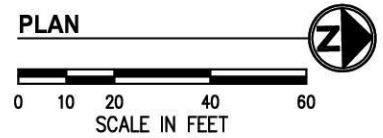
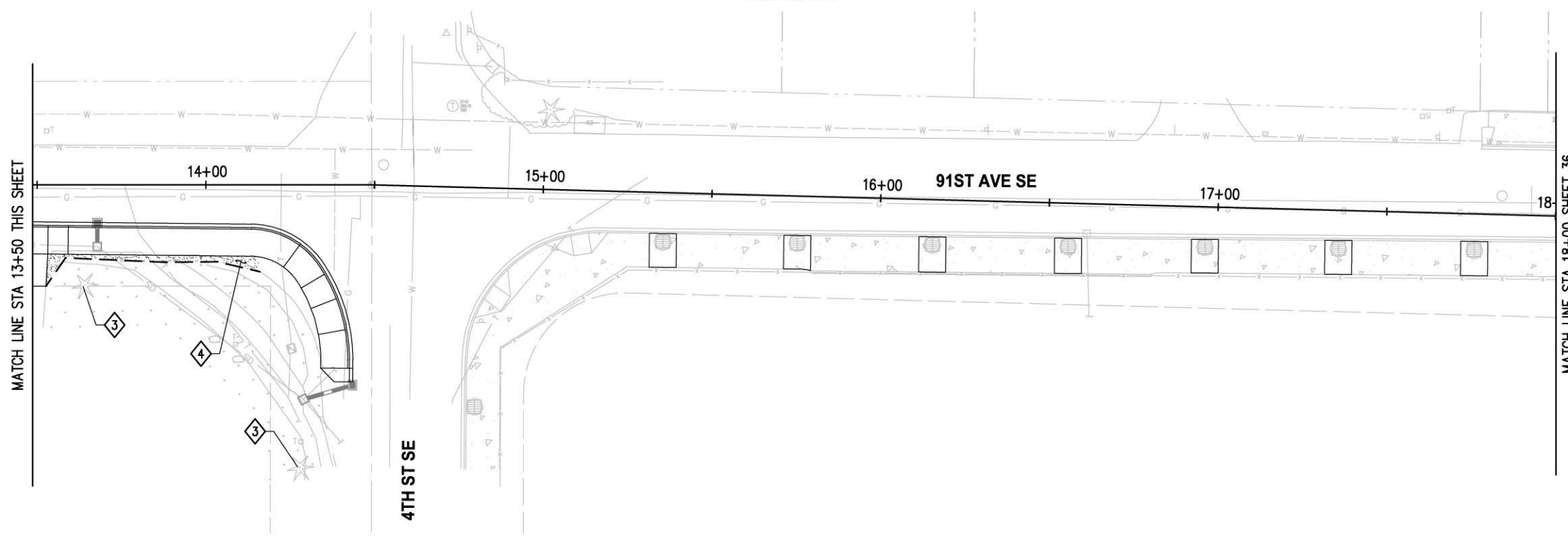
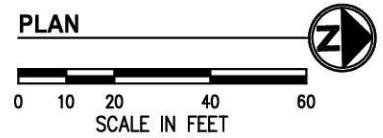
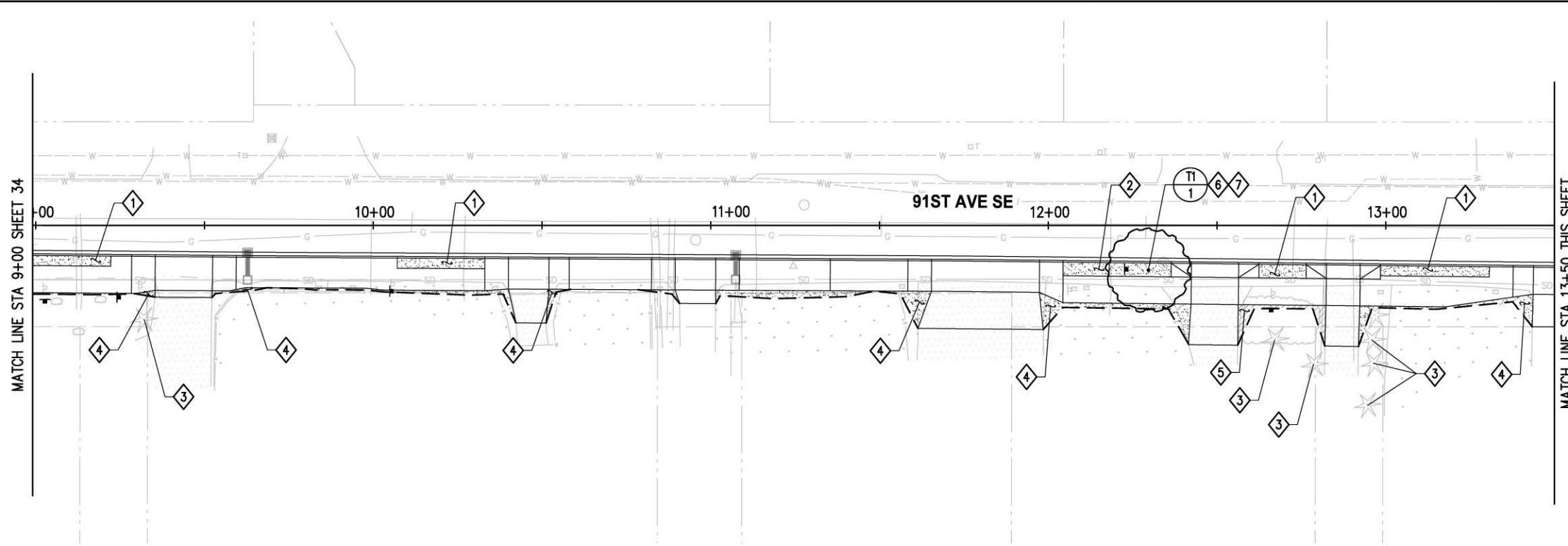
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**CITY OF LAKE STEVENS  
 91ST AVE SE SIDEWALK  
 IMPROVEMENTS PHASE 1**

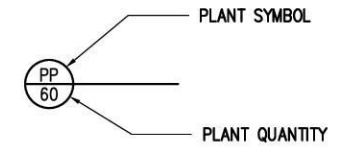
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KPG PROJECT No. 9LAK020200	SHT <b>34</b> OF <b>42</b>

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**CONSTRUCTION NOTES**

- 1 ROADWAY PLANTER TYPE 1; INSTALL 4" TOPSOIL TYPE A AND HYDROSEED WITH SEEDED LAWN MIX.
- 2 ROADWAY PLANTER TYPE 2; INSTALL 24" TOPSOIL TYPE A AND HYDROSEED WITH SEEDED LAWN MIX.
- 3 EXISTING TREE TO REMAIN; SAVE AND PROTECT PER DETAIL, SHEET 18.
- 4 BACK-OF-WALK LAWN RESTORATION; INSTALL 3" TOPSOIL TYPE A AND HYDROSEED ENTIRE DISTURBED AREA, TYP.
- 5 BACK-OF-WALK MULCH RESTORATION. INSTALL 3" TOPSOIL TYPE A AND 2" BARK OR WOOD CHIP MULCH OVER ENTIRE DISTURBED AREA, TYP.
- 6 INSTALL TREE WATERING BAG, ONE EACH PER TREE, TYP.
- 7 INSTALL MULCH RING PER DETAIL, SHEET 38.



**SEE SHEET 38 FOR LANDSCAPE SCHEDULE, DETAILS AND GENERAL NOTES**

NO.	DATE	BY	APPR.	REVISIONS

Approved By		9LAK020200LS01.dwg
ENGINEERING MANAGER	DATE	MR 5/24
PROJECT MANAGER	DATE	MR 5/24
PROJECT ENGINEER	DATE	CS 5/24
	DATE	CHECKED BY DATE



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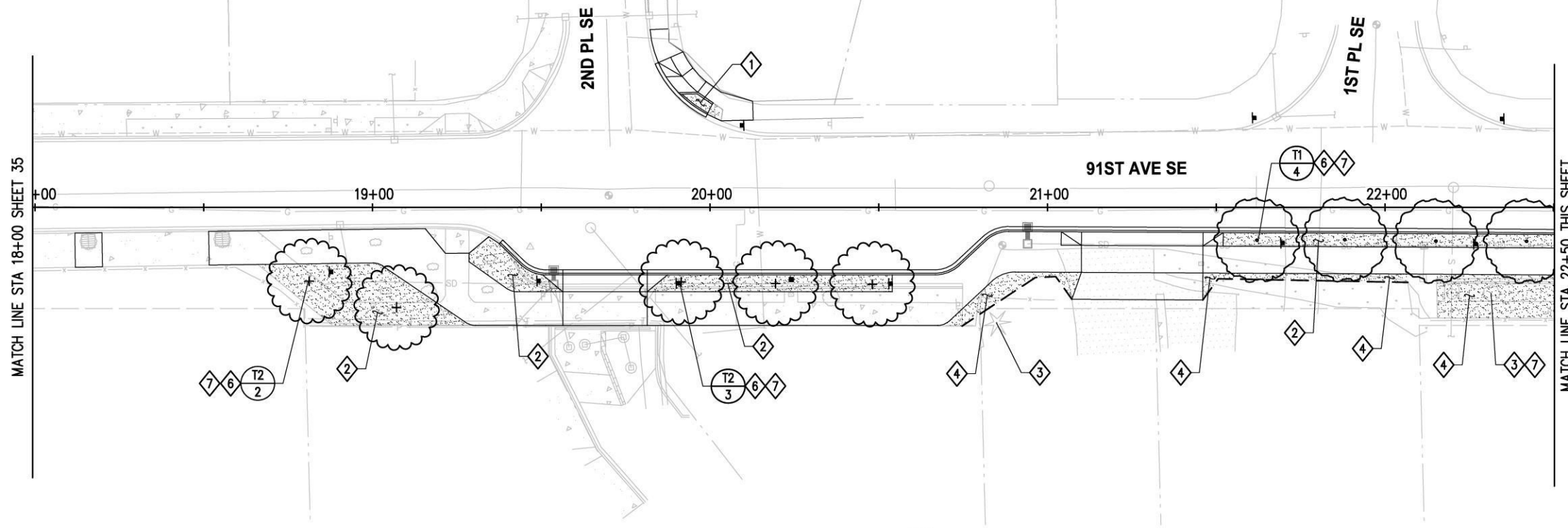
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**CITY OF LAKE STEVENS  
 91ST AVE SE SIDEWALK  
 IMPROVEMENTS PHASE 1**

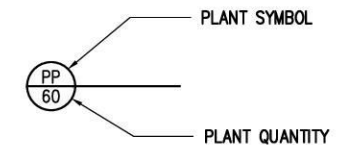
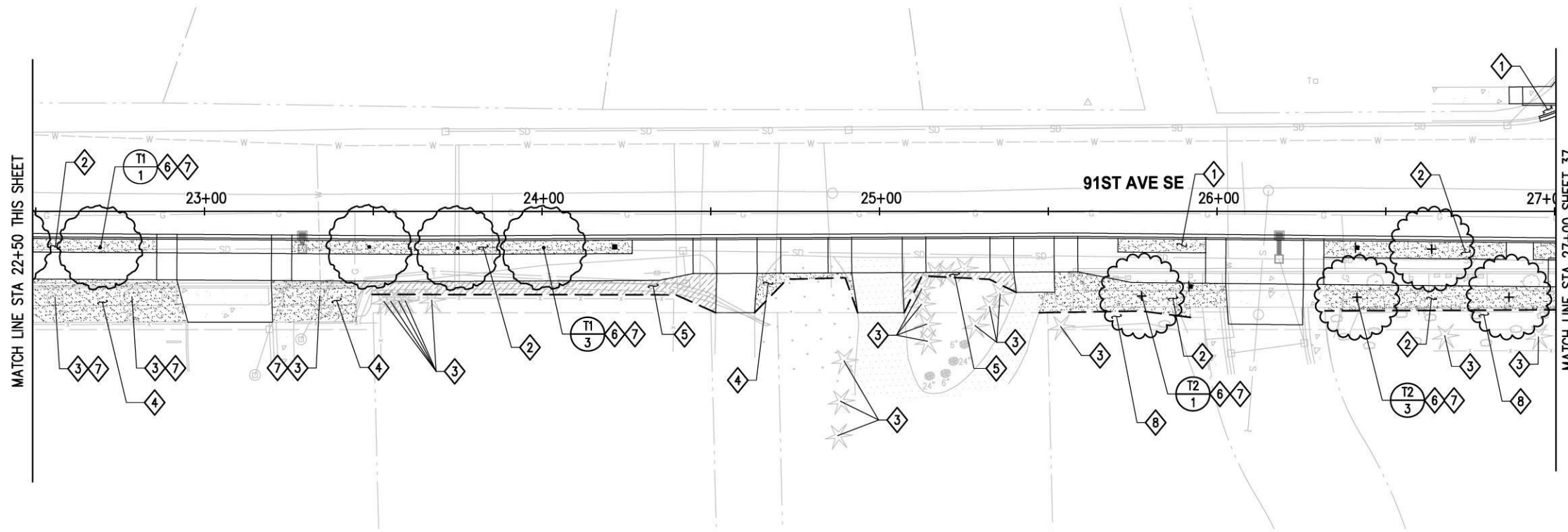
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KPG PROJECT No. 9LAK020200	SHT 35 OF 42

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**CONSTRUCTION NOTES**

- 1 ROADWAY PLANTER TYPE 1; INSTALL 4" TOPSOIL TYPE A AND HYDROSEED WITH SEEDED LAWN MIX.
- 2 ROADWAY PLANTER TYPE 2; INSTALL 24" TOPSOIL TYPE A AND HYDROSEED WITH SEEDED LAWN MIX.
- 3 EXISTING TREE TO REMAIN; SAVE AND PROTECT PER DETAIL, SHEET 18.
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- 5 BACK-OF-WALK MULCH RESTORATION. INSTALL 3" TOPSOIL TYPE A AND 2" BARK OR WOOD CHIP MULCH OVER ENTIRE DISTURBED AREA, TYP.
- 6 INSTALL TREE WATERING BAG, ONE EACH PER TREE, TYP.
- 7 INSTALL MULCH RING PER DETAIL, SHEET 38.
- 8 SAVE AND PROTECT EXISTING VEGETATION IN THIS AREA.



**SEE SHEET 38 FOR LANDSCAPE SCHEDULE, DETAILS AND GENERAL NOTES**

NO.	DATE	BY	APPR.	REVISIONS

<b>Approved By</b>		9LAK020200LS01.dwg
ENGINEERING MANAGER	DATE	FILENAME
PROJECT MANAGER	DATE	MR
PROJECT ENGINEER	DATE	DESIGNED BY
		MR
		DRAWN BY
		CS
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		DATE



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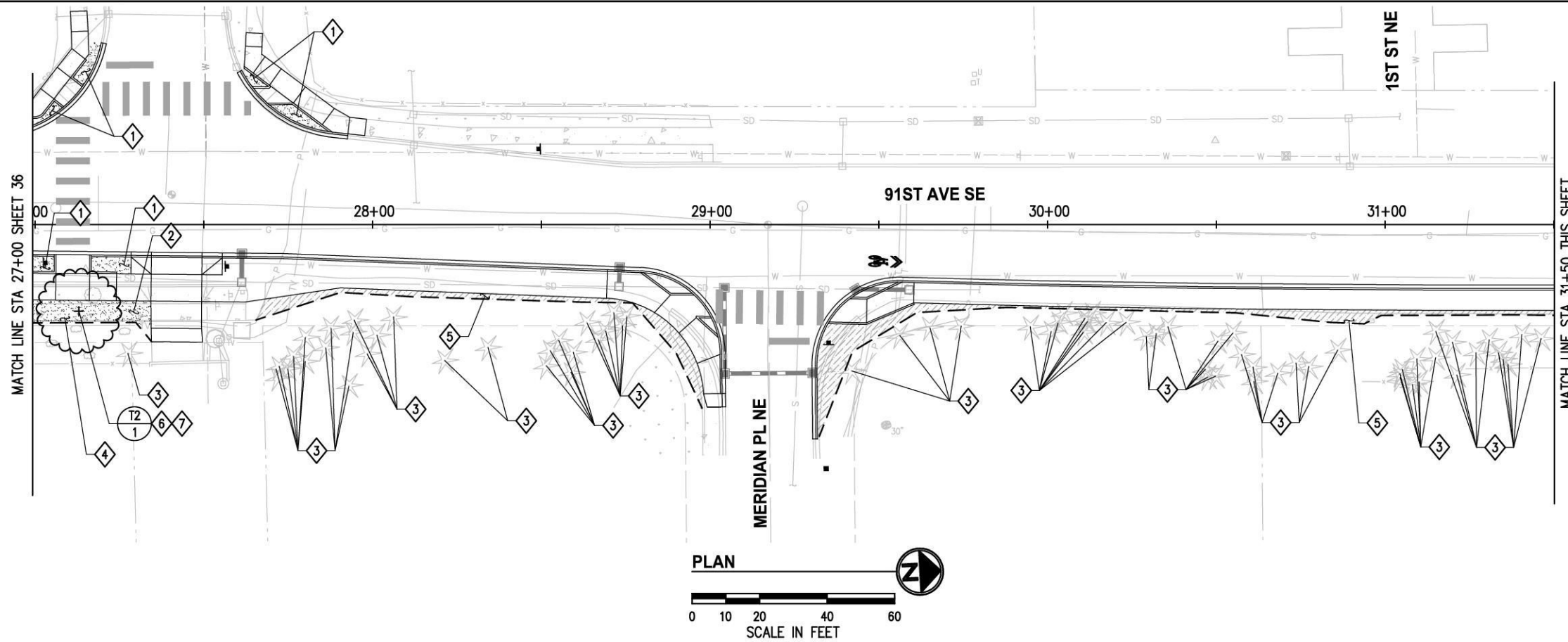
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**CITY OF LAKE STEVENS  
 91ST AVE SE SIDEWALK  
 IMPROVEMENTS PHASE 1**

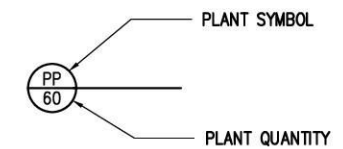
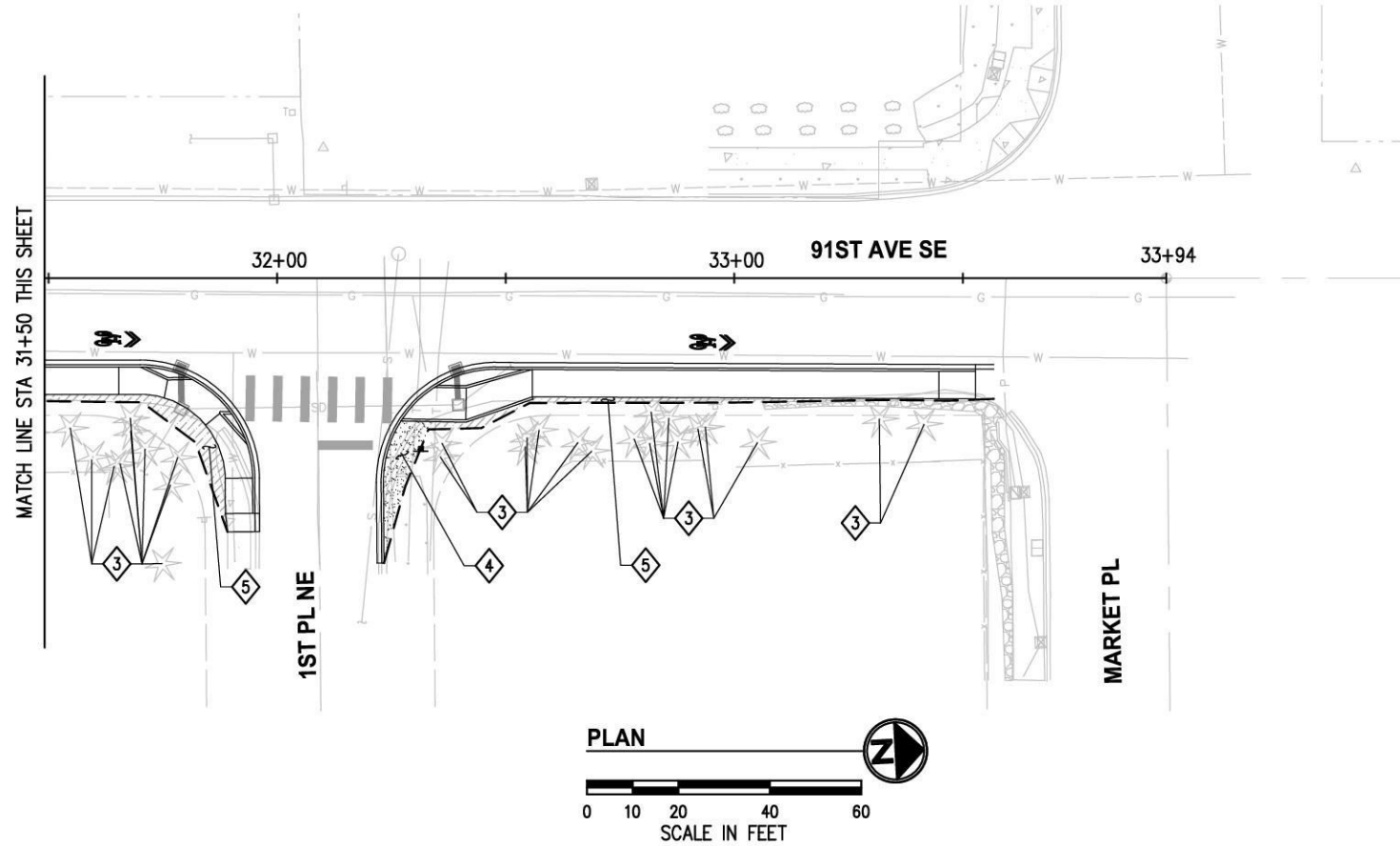
LANDSCAPE RESTORATION PLAN STA 18+00 TO STA 27+00	
KPG PROJECT No. 9LAK020200	SHT <u>36</u> OF <u>42</u>

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**CONSTRUCTION NOTES**

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- 2 ROADWAY PLANTER TYPE 2; INSTALL 24" TOPSOIL TYPE A AND HYDROSEED WITH SEEDED LAWN MIX.
- 3 EXISTING TREE TO REMAIN; SAVE AND PROTECT PER DETAIL, SHEET 18.
- 4 BACK-OF-WALK LAWN RESTORATION; INSTALL 3" TOPSOIL TYPE A AND HYDROSEED ENTIRE DISTURBED AREA, TYP.
- 5 BACK-OF-WALK MULCH RESTORATION. INSTALL 3" TOPSOIL TYPE A AND 2" BARK OR WOOD CHIP MULCH OVER ENTIRE DISTURBED AREA, TYP.
- 6 INSTALL TREE WATERING BAG, ONE EACH PER TREE, TYP.
- 7 INSTALL MULCH RING PER DETAIL, SHEET 38.



**SEE SHEET 38 FOR LANDSCAPE SCHEDULE, DETAILS AND GENERAL NOTES**

NO.	DATE	BY	APPR.	REVISIONS

Approved By		9LAK020200LS01.dwg
ENGINEERING MANAGER	DATE	MR 5/24
DESIGNED BY	DATE	MR 5/24
PROJECT MANAGER	DATE	CS 5/24
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**CITY OF LAKE STEVENS  
 91ST AVE SE SIDEWALK  
 IMPROVEMENTS PHASE 1**

LANDSCAPE RESTORATION PLAN STA 27+00 TO STA 33+94	
KPG PROJECT No. 9LAK020200	SHT 37 OF 42

**PLANT SCHEDULE**

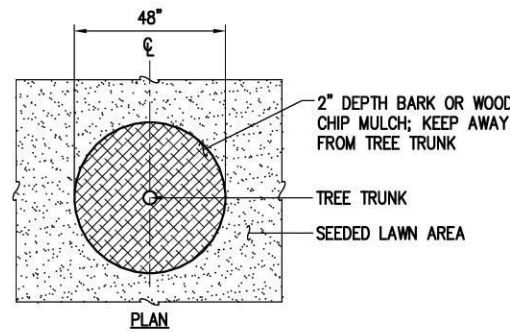
SYMBOL	BOTANICAL NAME/COMMON NAME	QTY	SIZE	REMARKS
STREET TREE				
	T1 ACER CAMPESTRE 'PANACEK' / METRO GOLD MAPLE	9	2.5" CAL. 12'-14' HT.	B&B WELL-BRANCHED
	T2 PARROTIA PERSICA 'VANESSA' / PERSIAN IRONWOOD	10	2.5" CAL. 12'-14' HT.	B&B WELL-BRANCHED
	SEEDED LAWN INSTALLATION	1,050 SY		
	BACK-OF-WALK MULCH RESTORATION	220 SY		

**GENERAL NOTES**

1. ALL PLANT MATERIALS SHALL MEET THE AMERICAN STANDARD FOR NURSERY STOCK, ANSI Z60.1 OR MOST CURRENT VERSION.
2. PLANT, MAINTAIN AND WARRANTY AS PER SPECIAL PROVISION.
3. DO NOT SUBSTITUTE SPECIES WITHOUT THE APPROVAL OF THE ENGINEER.
4. ALL TREES SHALL MEET WSDOT STANDARD "STREET TREE GRADE" SPECIFICATION AND SHALL BE BRANCHED AT MINIMUM 5' HT.
5. ALL DISTURBED AREAS NOT BEING PLANTED OR SEEDED SHALL RECEIVE 3" BARK OR WOOD CHIP MULCH.

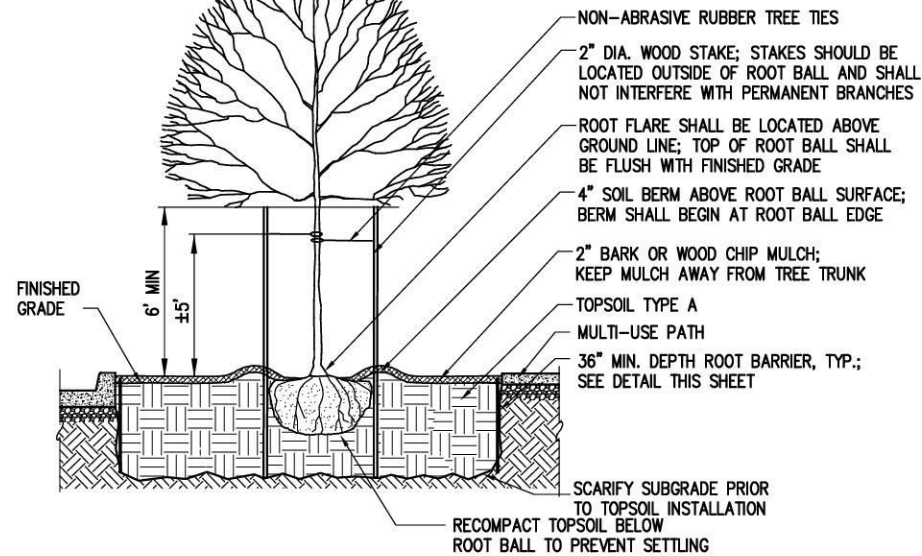
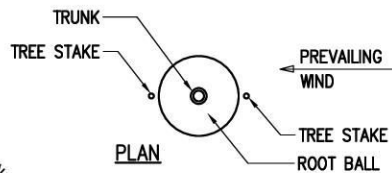
**TREE PLANTING NOTES**

1. TREE PIT SHALL NOT BE LESS THAN (3) TIMES ROOTBALL DIAMETER AND SHALL BE EQUAL TO ROOTBALL DEPTH.
2. CUT ALL TIES AND REMOVE BURLAP ROOTBALL.
3. REMOVE ALL PLASTIC AND TWINE.
4. BACKFILL TOPSOIL TYPE A AROUND ROOT BALL IN 6" LIFTS AND LIGHTLY RECOMPACT EACH LIFT; AFTER BACKFILLING, WATER IN ROOT BALL TO SETTLE THE SOIL.
5. PLANT TREES WITH ROOT FLARE ABOVE FINISHED GRADE; DO NOT COVER TOP OF ROOTBALL WITH SOIL.



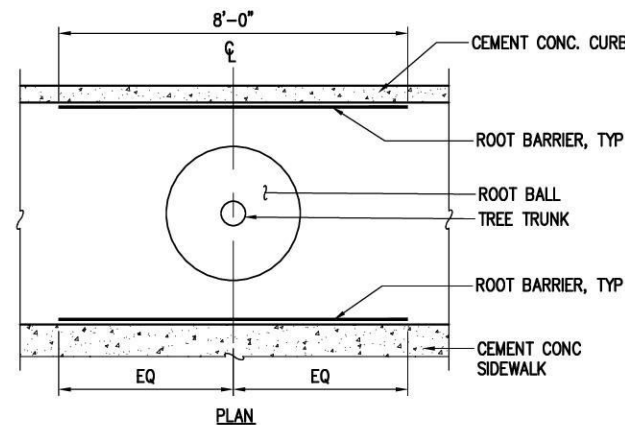
**TYPICAL MULCH RING DETAIL**

NTS  
NOTE: DETAIL APPLIES TO NEW AND EXISTING TREE PLANTINGS IN LAWN AREAS.



**TYPICAL STREET TREE PLANTING DETAIL**

NTS



**TYPICAL ROOT BARRIER DETAIL**

NTS  
NOTE: FOR NEW TREES IN BACK-OF-WALK AREAS, ROOT BARRIER REQUIRED ONLY ON SIDEWALK SIDE OF TREE

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PROJECT MANAGER	DATE	MR 5/24
PROJECT ENGINEER	DATE	DESIGNED BY
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		DRAWN BY
		CS 5/24
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**CITY OF LAKE STEVENS  
91ST AVE SE SIDEWALK  
IMPROVEMENTS PHASE 1**

LANDSCAPE RESTORATION DETAILS  
DET01  
KPG PROJECT No. 9LAK020200 SHT 38 OF 42

BUFFER DATA				
LONGITUDINAL BUFFER SPACE = B				
SPEED (MPH)	25	30	35	40
LENGTH (feet)	155	200	250	305
PROTECTIVE VEHICLE ROLL AHEAD DISTANCE = R				
NO SPECIFIED DISTANCE REQUIRED (40-80' RECOMMENDED)				

LANE WIDTH (feet)	MINIMUM TAPER LENGTH = L (feet)									
	POSTED SPEED (mph)									
	25	30	35	40	45	50	55	60	65	70
10	105	150	205	270	450	500	-	-	-	-
11	115	165	225	295	495	550	-	-	-	-
12	125	180	245	320	540	600	-	-	-	-

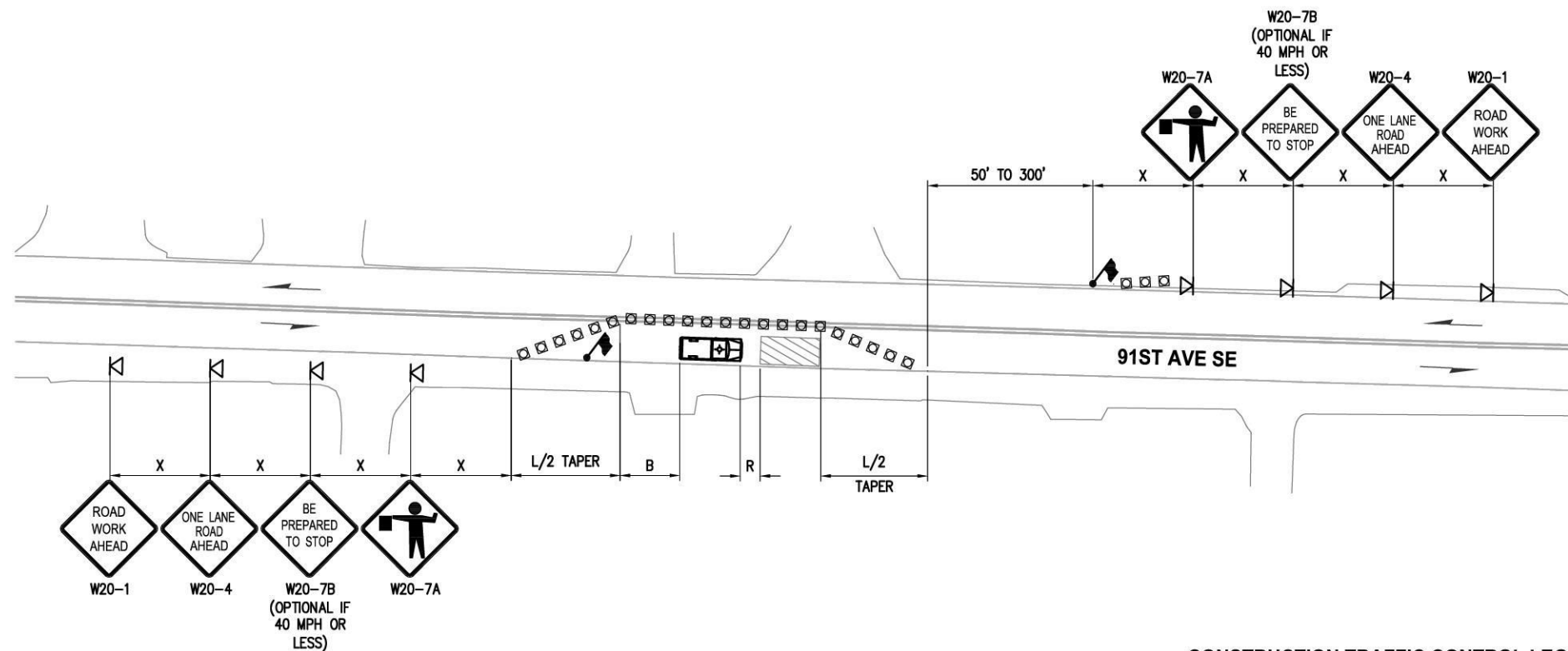
SIGN SPACING = X (1)		
RURAL ROADS & URBAN ARTERIALS	35/40 MPH	350' +-
RURAL ROADS & URBAN ARTERIALS RESIDENTIAL & BUSINESS DISTRICTS	25/30 MPH	200' +- (2)
URBAN STREETS	25 MPH OR LESS	100' +- (2)

(1) ALL SPACING MAY BE ADJUSTED TO ACCOMMODATE INTERCHANGE RAMP, AT-GRADE INTERSECTIONS, AND DRIVEWAYS.  
(2) THIS SPACING MAY BE REDUCED IN URBAN AREAS TO FIT ROADWAY CONDITIONS.

CHANNELIZATION DEVICE SPACING (feet)		
MPH	TAPER	TANGENT
35/45	30	60
25/30	20	40

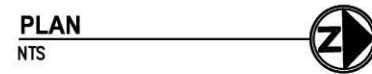
**GENERAL TRAFFIC CONTROL NOTES**

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- TEMPORARY CHANNELIZATION TAPE AND TEMPORARY ROADWAY SIGNAGE SHALL BE PUT IN PLACE PRIOR TO END OF EACH WORKING DAY IN ADDITION TO REQUIRED TRAFFIC CONTROL.
- WORKING HOURS SHALL BE WEEKDAYS 7AM-6PM UNLESS OTHERWISE APPROVED BY THE ENGINEER. SEE SPECIFICATIONS.
- UNIFORMED POLICE OFFICER (UPO) SHALL BE PRESENT FOR WORK WITHIN 150 LF OF SIGNALIZED INTERSECTION.
- SIGNS ARE BLACK ON ORANGE UNLESS OTHERWISE INDICATED.



**CONSTRUCTION TRAFFIC CONTROL LEGEND**

- TRAFFIC SAFETY DRUMS WITH LIGHT
- WORK ZONE
- DIRECTION OF TRAVEL
- TEMPORARY SIGN LOCATION
- FLAGGER STATION
- SEQUENTIAL ARROW SIGN
- UNIFORM POLICE OFFICER
- PROTECTIVE VEHICLE - RECOMMENDED
- SIGNALIZED INTERSECTION



**TWO LANE ROAD CLOSURE  
91ST AVE SE TWO LANE SECTION**

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NO.	DATE	BY	APPR.	REVISIONS

Approved By		91AK020200TCP.dwg
ENGINEERING MANAGER	DATE	DPY 4/24
PROJECT MANAGER	DATE	AC 4/24
PROJECT ENGINEER	DATE	KA 4/24
	DATE	CHECKED BY



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**CITY OF LAKE STEVENS  
91ST AVE SE SIDEWALK  
IMPROVEMENTS PHASE 1**

BUFFER DATA				
LONGITUDINAL BUFFER SPACE = B				
SPEED (MPH)	25	30	35	40
LENGTH (feet)	155	200	250	305
PROTECTIVE VEHICLE ROLL AHEAD DISTANCE = R				
NO SPECIFIED DISTANCE REQUIRED (40-80' RECOMMENDED)				

LANE WIDTH (feet)	MINIMUM TAPER LENGTH = L (feet)									
	POSTED SPEED (mph)									
	25	30	35	40	45	50	55	60	65	70
10	105	150	205	270	450	500	-	-	-	-
11	115	165	225	295	495	550	-	-	-	-
12	125	180	245	320	540	600	-	-	-	-

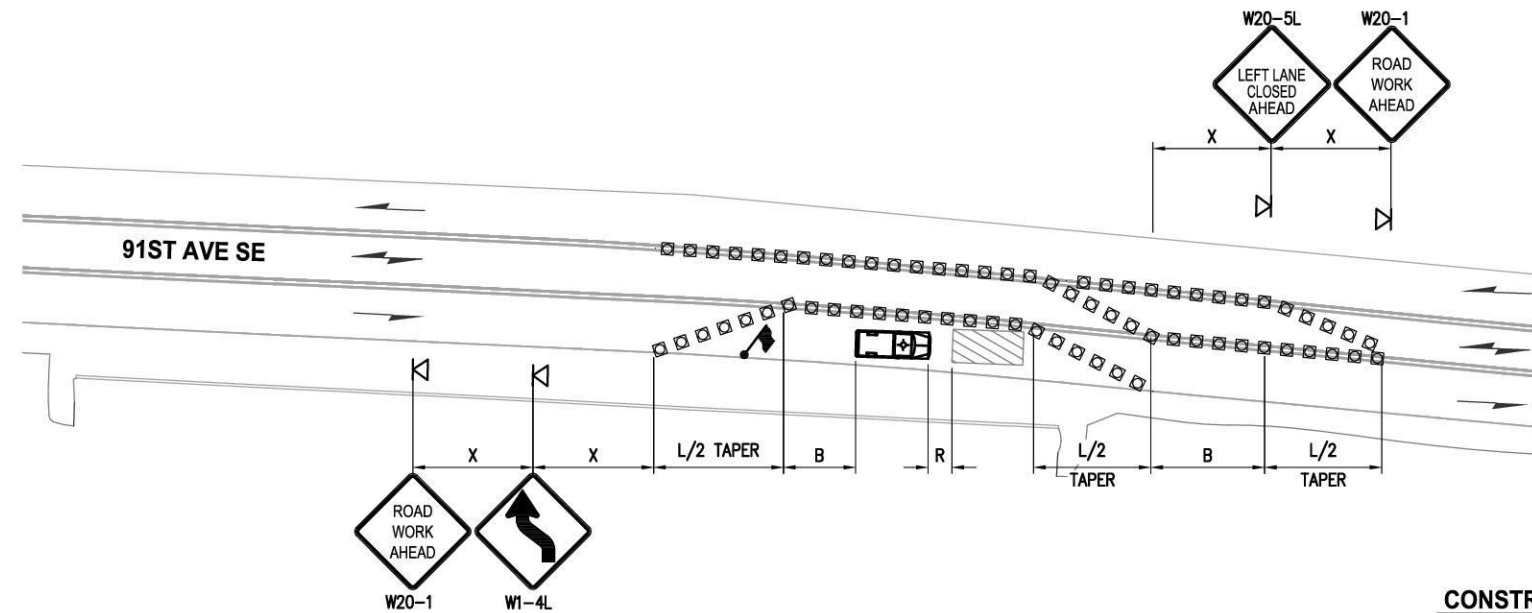
SIGN SPACING = X (1)		
RURAL ROADS & URBAN ARTERIALS	35/40 MPH	350' +-
RURAL ROADS & URBAN ARTERIALS RESIDENTIAL & BUSINESS DISTRICTS	25/30 MPH	200' +- (2)
URBAN STREETS	25 MPH OR LESS	100' +- (2)

(1) ALL SPACING MAY BE ADJUSTED TO ACCOMMODATE INTERCHANGE RAMP, AT-GRADE INTERSECTIONS, AND DRIVEWAYS.  
(2) THIS SPACING MAY BE REDUCED IN URBAN AREAS TO FIT ROADWAY CONDITIONS.

CHANNELIZATION DEVICE SPACING (feet)		
MPH	TAPER	TANGENT
35/45	30	60
25/30	20	40

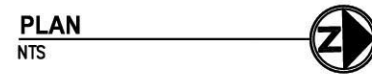
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**CONSTRUCTION TRAFFIC CONTROL LEGEND**

- TRAFFIC SAFETY DRUMS WITH LIGHT
- WORK ZONE
- DIRECTION OF TRAVEL
- TEMPORARY SIGN LOCATION
- FLAGGER STATION
- SEQUENTIAL ARROW SIGN
- UNIFORM POLICE OFFICER
- PROTECTIVE VEHICLE - RECOMMENDED
- SIGNALIZED INTERSECTION



**THREE LANE ROAD CLOSURE  
91ST AVE SE THREE LANE SECTION**

NO.	DATE	BY	APPR.	REVISIONS

Approved By		91AK020200TCP.dwg
ENGINEERING MANAGER	DATE	DPY 4/24
PROJECT MANAGER	DATE	AC 4/24
PROJECT ENGINEER	DATE	KA 4/24
	DATE	CHECKED BY



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**CITY OF LAKE STEVENS  
91ST AVE SE SIDEWALK  
IMPROVEMENTS PHASE 1**

TYPICAL TRAFFIC CONTROL PLANS THREE LANE ROAD CLOSURE	
KPG PROJECT No. 91AK020200	SHT 40 OF 42

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BUFFER DATA				
LONGITUDINAL BUFFER SPACE = B				
SPEED (MPH)	25	30	35	40
LENGTH (feet)	155	200	250	305
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NO SPECIFIED DISTANCE REQUIRED (40-80' RECOMMENDED)				

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	POSTED SPEED (mph)									
	25	30	35	40	45	50	55	60	65	70
10	105	150	205	270	450	500	-	-	-	-
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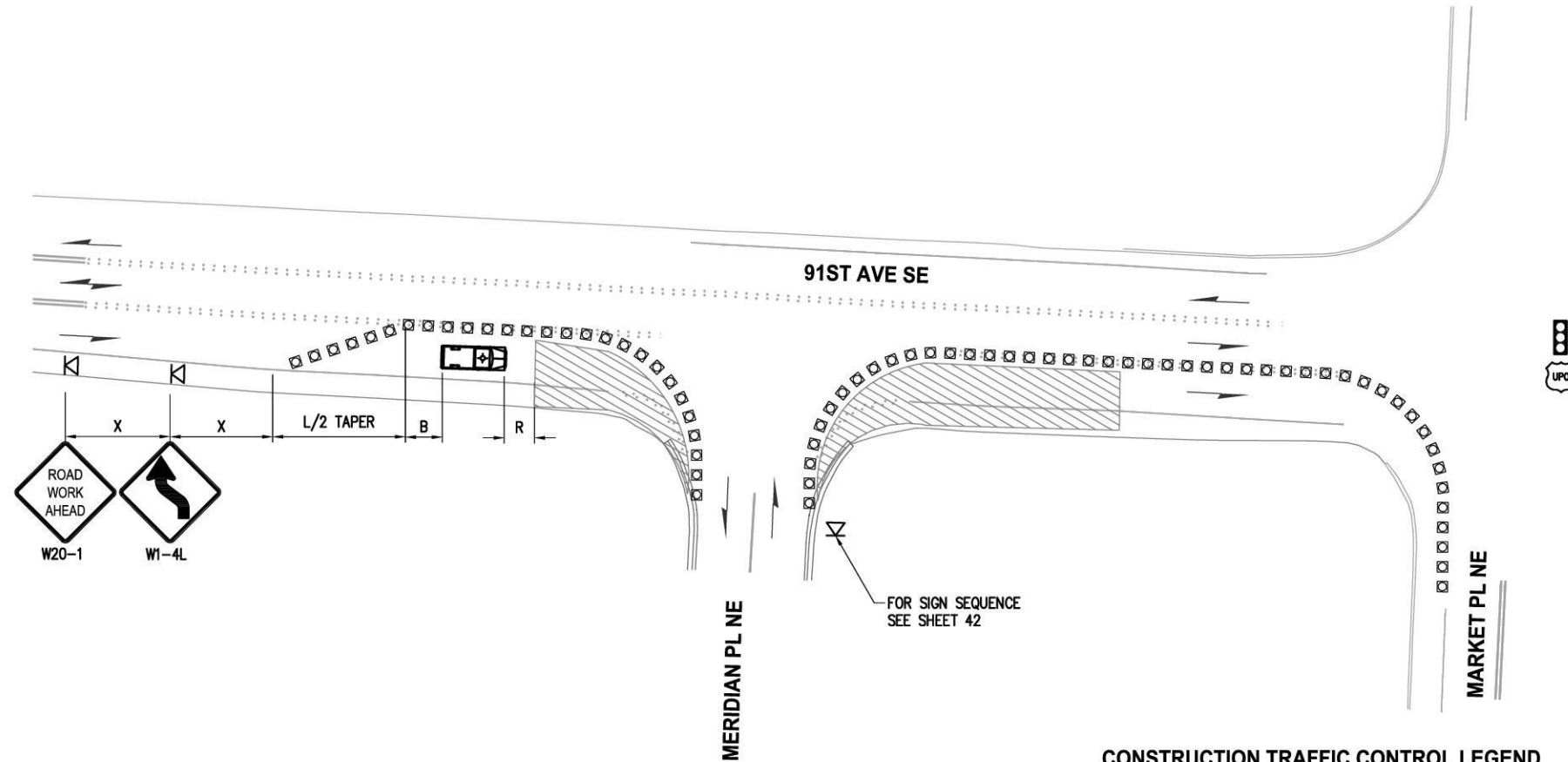
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PLAN  
NTS

**CONSTRUCTION TRAFFIC CONTROL LEGEND**

- TRAFFIC SAFETY DRUMS WITH LIGHT
- WORK ZONE
- DIRECTION OF TRAVEL
- TEMPORARY SIGN LOCATION
- FLAGGER STATION
- SEQUENTIAL ARROW SIGN
- UNIFORM POLICE OFFICER
- PROTECTIVE VEHICLE - RECOMMENDED
- SIGNALIZED INTERSECTION

**CONTROLLED INTERSECTION CLOSURE  
91ST AVE SE THREE LANE SECTION**

NO.	DATE	BY	APPR.	REVISIONS

Approved By		FILENAME
ENGINEERING MANAGER	DATE	9LAK020200TCP.dwg
PROJECT MANAGER	DATE	DPY 4/24
PROJECT ENGINEER	DATE	DESIGNED BY AC 4/24
	DATE	DRAWN BY KA 4/24
	DATE	CHECKED BY 4/24



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Seattle, WA 98121 206.286.1640  
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**CITY OF LAKE STEVENS  
91ST AVE SE SIDEWALK  
IMPROVEMENTS PHASE 1**

TYPICAL TRAFFIC CONTROL PLANS MARKET PL NE	
KPG PROJECT No. 9LAK020200	SHT 41 OF 42

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