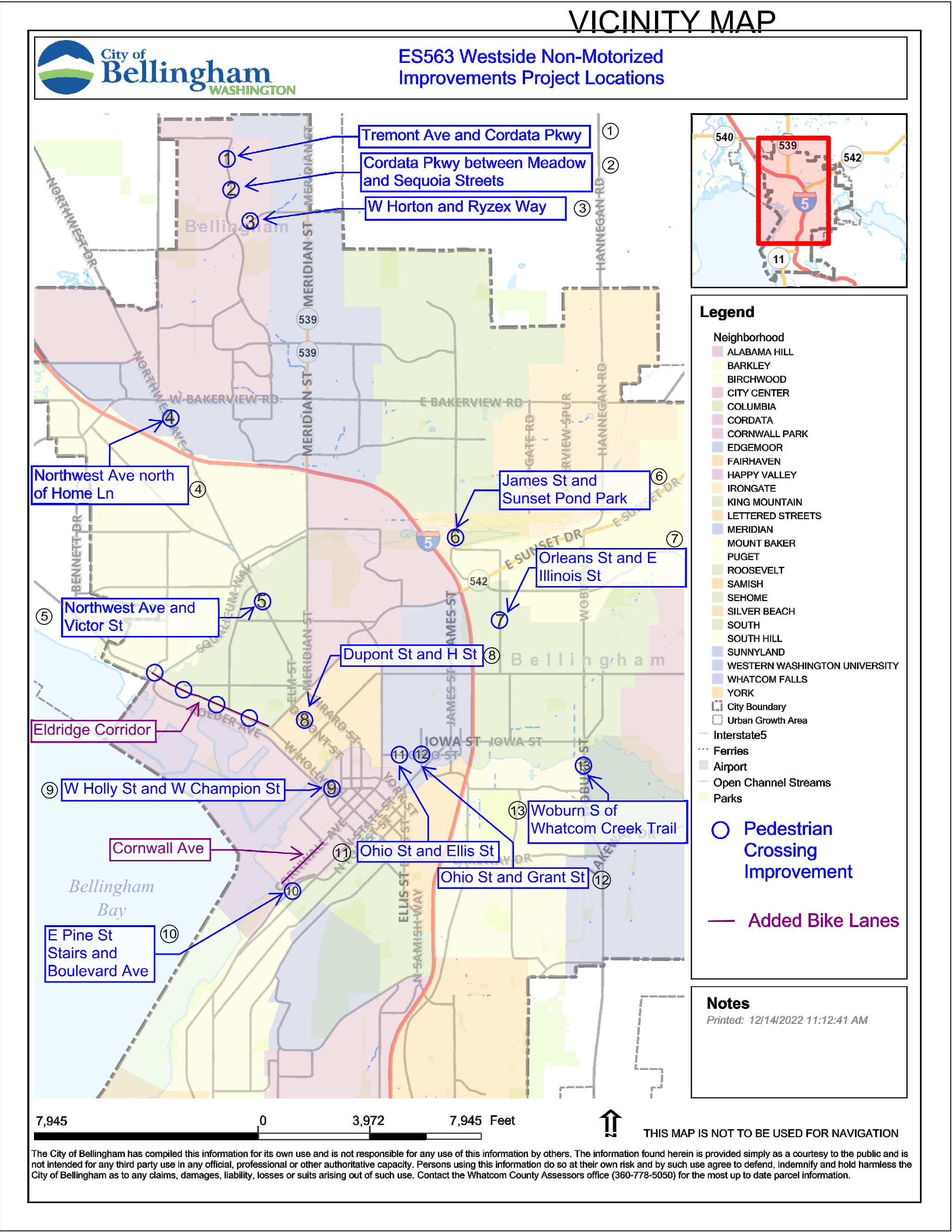


SHEET INDEX

ES563 West Side Non-Motorized Improvements
CITY OF BELLINGHAM, WASHINGTON

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18. DEMO & TESC PLAN - DETAILS (may be deleted)
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25. CORNWALL AVE. STA: 100+00 to 110+50
26. CORNWALL AVE. STA: 110+50 to 121+50
27. WHARF STREET CHANNELIZATION
28. CHANNELIZATION & RRFB INTERSECTIONS 1, 2, & 3
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32. PAVING DETAILS
33. CHANNELIZATION DETAILS
34. RRFB DETAILS
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38. WSDOT STANDARD DETAILS



SURVEY NOTES
JEPSON AND ASSOCIATES
222 GRAND AVENUE
(360)0733-5760
PERFORMED THE FIELD SURVEY FOR
PORTIONS OF ELDRIDGE AVE.
AND INTERSECTIONS 1,2,3,5,9 & 13

GENERAL NOTES

ALL WORK SHALL CONFORM TO THE LATEST EDITION OF "STANDARD SPECIFICATIONS FOR ROAD BRIDGE AND MUNICIPAL CONSTRUCTION" CURRENT EDITION (WSDOT) AND THE "CITY OF BELLINGHAM DEVELOPMENT GUIDELINES AND IMPROVEMENT STANDARDS" UNLESS INDICATED OTHERWISE BY THE CONTRACT DOCUMENTS.

IN CASE OF A CONFLICT BETWEEN THE REGULATORY SPECIFICATIONS OR STANDARDS, THE MORE STRINGENT REQUIREMENT WILL PREVAIL. ALL REFERENCES TO "SPECIFICATION SECTIONS" REFER TO THE "STANDARD SPECIFICATIONS FOR ROAD BRIDGE AND MUNICIPAL CONSTRUCTION" UNLESS OTHERWISE NOTED.

THE BEDDING FOR PVC PIPE SHALL BE PEA GRAVEL, ACCORDING TO CITY OF BELLINGHAM STANDARD PLAN No. SS-750

ALL TRENCH BACKFILL UNDER EXISTING OR FUTURE PAVING SHALL BE BANK RUN GRAVEL FOR TRENCH BACKFILL AND SHALL BE COMPACTED TO 95% OF MAXIMUM DENSITY (MODIFIED PROCTOR).

PLUG ALL CULVERTS, SEWERS, AND CONDUITS PRIOR TO ABANDONMENT. AS PER STANDARD SPECIFICATIONS SECTION 7-08.3(4)

ALL LAWN AND VEGETATED AREAS OUTSIDE THE PROJECT LIMITS DISTURBED BY CONSTRUCTION EQUIPMENT, VEHICLES OR PERSONNEL SHALL BE RESTORED TO ORIGINAL CONDITION OR BETTER, AT THE CONTRACTORS EXPENSE.

THIS PROJECT MAY REQUIRE VARIOUS PERMITS AS OUTLINED IN THE PROJECT SPECIFICATION'S GENERAL PROVISIONS. ALL WORK SHALL BE PERFORMED IN A MANNER WHICH ENSURES CONFORMANCE WITH ANY PERMIT REQUIREMENTS.

THE CONTRACTOR SHALL ATTEND PRE-CONSTRUCTION CONFERENCE WITH THE CITY OF BELLINGHAM ENGINEERING DIVISION PRIOR TO BEGINNING CONSTRUCTION.

UNDERGROUND UTILITIES ARE KNOWN TO EXIST IN THE AREA OF CONSTRUCTION. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT THE UTILITY OWNERS FOR LOCATIONS AND TO NOTIFY THE ENGINEER PROMPTLY OF ANY CONFLICT. THE ONE-CALL NUMBER FOR UNDERGROUND UTILITIES IS: 1-800-424-5555.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE INTEGRITY OF ADJACENT UTILITIES WHICH MAY INCLUDE, BUT ARE NOT LIMITED TO, WATER, SEWER, STORM SEWER, POWER, TELEPHONE, CABLE TV, GAS, IRRIGATION, AND STREET LIGHTING.

THE CONTRACTOR SHALL NOTIFY RESIDENTS AND BUSINESSES 48 HOURS IN ADVANCE OF ANY WORK AFFECTING ACCESS OR SERVICE AND SHALL MINIMIZE INTERRUPTIONS TO DRIVEWAYS FOR RESIDENTS AND BUSINESSES ADJACENT TO THE PROJECT.

PUBLIC RIGHTS-OF-WAY SHALL BE KEPT IN A CLEAN AND SERVICEABLE CONDITION AT ALL TIMES. IN THE EVENT MATERIALS ARE INADVERTENTLY DEPOSITED ON ROADWAYS, THE MATERIAL SHALL BE PROMPTLY REMOVED. MATERIALS ARE TO BE SWEPT AND REMOVED WITH A VACUUM SWEEPER.

PUBLIC AND PRIVATE DRAINAGE WAYS SHALL BE PROTECTED FROM POLLUTION. NO MATERIAL IS TO BE DISCHARGED TO, OR DEPOSITED IN STORMWATER SYSTEMS THAT MAY RESULT IN VIOLATION OF STATE OR FEDERAL WATER QUALITY STANDARDS.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONSTRUCTING, MAINTAINING, & REMOVING EROSION CONTROL MEASURES (SILT FENCE, ROCK CHECK DAMS, SILT PONDS, CATCH BASIN FILTERS, ETC...) THROUGHOUT THE DURATION OF THE PROJECT. ALL EROSION CONTROL WORK IS CONSIDERED INCIDENTAL TO THE ITEMS OF WORK IN THE CONTRACT FOR THIS PROJECT.

REFER TO THE 'STORM WATER POLLUTION PREVENTION PLAN' SHEETS AND BID ITEMS NOTED IN THE CONTRACT PORTION OF THE PROJECT SPECIFICATIONS FOR SPECIFIC EROSION CONTROL NOTES.

STORM NOTES

BEDDING AND BACKFILL FOR PVC STORM MAIN PIPE SHALL CONFORM TO CITY OF BELLINGHAM STANDARD PLAN No. DR-538.

STORM MAIN CLEANOUTS SHALL CONFORM TO CITY OF BELLINGHAM STANDARD NO. SS-720

THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING EROSION CONTROL MEASURES (SILT FENCE, ROCK CHECK DAMS, SILT PONDS, ETC..., AS DIRECTED BY THE ENGINEER) THROUGHOUT THE DURATION OF THE PROJECT.

DURING CONSTRUCTION, CATCH BASIN INSERTS OR ACCEPTABLE ALTERNATIVES MUST BE PLACED UNDER ALL EXISTING AND NEWLY CONSTRUCTED CATCH BASIN GRATES WITHIN THE PROJECT SITE.

ALL CATCH BASINS WITHIN THE PROJECT LIMITS SHALL BE CLEANED OUT AT THE COMPLETION OF THE PROJECT AND ANY MATERIAL REMOVED SHALL BE PROPERLY DISPOSED OF.

DURING ANY DITCH, CREEK & DRAINAGE WORK, WATER SHALL BE DIVERTED AROUND THE PROJECT WITH A CITY ENGINEER APPROVED METHOD.

ANY MISCELLANEOUS DRAINAGE FOUND WILL BE REQUIRED TO BE REMOVED OR CONNECTED TO THE NEW DRAINAGE SYSTEM UNDER THE DIRECTION OF THE ENGINEER.

STORM WATER POLLUTION PREVENTION PLAN AND STORM WATER PERMIT APPLICATION (SWPPP) SHALL BE SUBMITTED BY THE CONTRACTOR. CONTRACTOR SHALL SUBMIT DETAILS ON CONSTRUCTION TIMING, HAUL ROUTES, CONSTRUCTION ENTRANCES AND GROUND STABILIZATION. THE SWPPP AND PERMIT SHALL BE REVIEWED AND APPROVED BY THE CITY PRIOR TO COMMENCEMENT OF WORK.

EROSION CONTROL NOTES

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION, MAINTENANCE AND REMOVAL OF ALL EROSION CONTROL MEASURES (SILT FENCE, STRAW BALE DAMS, SILT PONDS, ETC., AS DIRECTED BY THE ENGINEER) THROUGHOUT THE DURATION OF THE PROJECT.

IN THE EVENT MATERIALS ARE INADVERTENTLY DEPOSITED ON ROADWAYS, THE MATERIAL SHALL BE PROMPTLY REMOVED. MATERIALS ARE TO BE SWEPT AND REMOVED PRIOR TO ANY STREET FLUSHING. PUBLIC AND PRIVATE DRAINAGE WAYS SHALL BE PROTECTED FROM POLLUTION. NO MATERIAL IS TO BE DISCHARGED OR DEPOSITED IN STORMWATER SYSTEMS THAT MAY RESULT IN VIOLATION OF STATE OR FEDERAL WATER QUALITY STANDARDS.

THE CONTRACTOR IS REQUIRED TO PREPARE AND IMPLEMENT A STORM WATER POLLUTION PREVENTION PLAN (SWPPP). A COPY OF THE SWPPP SHALL BE ON SITE THROUGHOUT THE DURATION OF CONSTRUCTION.

STABILIZE SOILS- ALL EXPOSED AND UNWORKED SOILS SHALL BE STABILIZED BY APPLICATION OF EFFECTIVE BEST MANAGEMENT PRACTICES, THAT PROTECT THE SOIL FROM THE EROSION FORCES OF WATER AND WIND. NO UNWORKED SOILS SHALL REMAIN EXPOSED FOR MORE THAN SEVEN (7) DAYS.

SAWCUTTING SLURRY AND CUTTINGS SHALL BE VACUUMED DURING CUTTING AND SURFACING OPERATIONS. SLURRY AND CUTTINGS SHALL NOT REMAIN ON PAVEMENT OVERNIGHT.

A STORM WATER POLLUTION PREVENTION PLAN SHALL BE PROVIDED BY THE CONTRACTOR. THE PLAN WILL BE REVIEWED, APPROVED AND A PERMIT ISSUED BY THE CITY PRIOR TO COMMENCEMENT OF WORK. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING AND PAYING FOR THE PERMIT.

INLET PROTECTION MUST BE PROVIDED FOR ALL EXISTING CATCH BASINS DURING CONSTRUCTION. ALL CATCH BASINS WITHIN THE PROJECT LIMITS SHALL BE CLEANED OUT AT THE COMPLETION OF THE PROJECT AND ANY MATERIAL REMOVED SHALL BE PROPERLY DISPOSED OF.

DURING ANY DITCH, CREEK & DRAINAGE WORK WATER SHALL BE DIVERTED AROUND THE PROJECT WITH A PUMP OR OTHER ADEQUATE METHOD APPROVED BY THE ENGINEER.

ANY MISCELLANEOUS DRAINAGE FOUND WILL BE REQUIRED TO BE REMOVED OR CONNECTED TO THE NEW DRAINAGE SYSTEM WITH THE DIRECTION OF THE ENGINEER. DISTURBED SOILS ARE TO BE MULCHED.

LEGEND

	EXISTING	PROPOSED		EXISTING	PROPOSED
RIGHT OF WAY LINE			UNDERGROUND POWER		
PROPERTY LINE			UTILITY POLE		
CENTER LINE			SIDEWALK		
WATER MAIN			CURB & GUTTER		
WATER SERVICE			EDGE OF PAVEMENT		
WATER VALVE			EDGE OF GRAVEL/DIRT		
FIRE HYDRANT			WHEELCHAIR RAMP		
SANITARY SEWER MAIN			BUILDING LINE		
SANITARY SEWER SERVICE			TREE LINE		
STORM SEWER MAIN			FENCE LINE		
STORM SEWER SERVICE			WALL LINE (ROCK)		
SEWER MANHOLE			WALL LINE		
STORM MANHOLE			SHRUBS		
CATCH BASIN			TREES		
CULVERT			RIP RAP		
DRAINAGE DITCH			STREET LIGHT JUNCTION BOX		
CREEK			TRAFFIC JUNCTION BOX		
GAS MAIN			LUMINAIRE (STREET LIGHT)		
GAS SERVICE			SIGNAL POLE		
UNDERGROUND TELEPHONE			PEDESTRIAN SIGNAL		
FIBER OPTIC LINE			SILT FENCE		
MONUMENT			SAND BAG CHECK DAM		

SURVEY NOTES
JEFFSON AND ASSOCIATES
222 GRAND AVENUE
(360)733-5760
PERFORMED THE FIELD SURVEY FOR
PORTIONS OF ELDRIDGE AVE.
AND INTERSECTIONS 1,2,3,5,9 &13

	4		
	3		
	2	60% review	
	1		
Date	No	Revision	By

PROJECT ENGINEER	JJB
DESIGNED/DRAWN	ELH
INSPECTOR	?

DIRECTOR OF PUBLIC WORKS	E.C.J.
CITY ENGINEER	C.M.A.S.
OPERATIONS ENGINEER	M.A.O.

CITY OF BELLINGHAM, WASHINGTON
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

SCALE
Horiz. 1"= 20'
Vert. 1"= NA

DATUM
NAD 83/98
NAVD 88

Job. No.	ES-0563
Date	02/2023
Field Bk.	_FB

WESTSIDE NON MOTORIZED IMPROVEMENTS
GENERAL NOTES AND LEGEND

SHEET	OF
2	xx

CONTACT PERSON: _____, PROJECT ENGINEER AT 778-7900

WEST SIDE NON-MOTORIZED IMPROVEMENTS

CITY OF BELLINGHAM PUBLIC WORKS PROJECT #ES563 SURVEY CONTROL WORKSHEET

SURVEYOR'S NOTES:

- HORIZONTAL DATUM:** RELATED TO WASHINGTON COORDINATE SYSTEM (NAD83/98), NORTH ZONE

LINE HELD: **N63°09'02"W 3602.34'** BETWEEN FOUND BRASS DISKS (COB 706 AND 718) IN THE CENTERLINE OF ELDRIDGE AVE., AS SHOWN.
- VERTICAL DATUM:** NAVD88

PROJECT BENCHMARKS:

PT #801 (COB 5848) - FND 2" BRASS DISK IN BRIDGE HEADWALL - EL=67.42' (HELD)
PT# 805 (COB 3513) - FND GIN SPIKE IN POWER POLE - EL=68.71'
- DATE OF SURVEY: **JANUARY 25-27 & 31 AND FEBRUARY 1, 2023**
- PROCEDURES USED IN THIS SURVEY MEET OR EXCEED STANDARDS SET FORTH BY WAC 332-130-145: TOPOGRAPHIC ELEMENTS ON MAPS.
- THE PURPOSE OF THIS SURVEY WAS TO COLLECT TOPOGRAPHIC DATA WITHIN THE RIGHT OF WAY OF THE SCOPED AREA.
- THIS SURVEY WAS ACCOMPLISHED USING STANDARD FIELD TRAVERSE PROCEDURES WITH A TOTAL STATION. VERTICAL CONTROL WAS ESTABLISHED USING CLOSED LOOP DIFFERENTIAL LEVELING. ALL MONUMENTS SHOWN WERE VISITED DURING THE COURSE OF THIS SURVEY UNLESS OTHERWISE NOTED.
- SURFACE CONTOURS DEPICTED WITH 1' (MINOR) AND 5' (MAJOR) INTERVALS WERE GENERATED FROM FIELD OBSERVATIONS USING AUTOCAD CIVIL 3D (VERSION 2019) AND ARE TYPICALLY ACCURATE TO WITHIN APPROXIMATELY 0.5'±.
- JEPSON AND ASSOCIATES ASSUMES NO LIABILITY FOR ANY SUBSURFACE CONDITIONS OR FEATURES THAT MAY EXIST WHICH WERE UNDETECTABLE OR NOT VIABLE AT THE TIME OF THIS SURVEY AND THEREAFTER.
- THIS IS NOT A BOUNDARY SURVEY AND IS NOT INTENDED TO BE USED AS SUCH, SEE A RECORD OF SURVEY OR PLAT MAP.

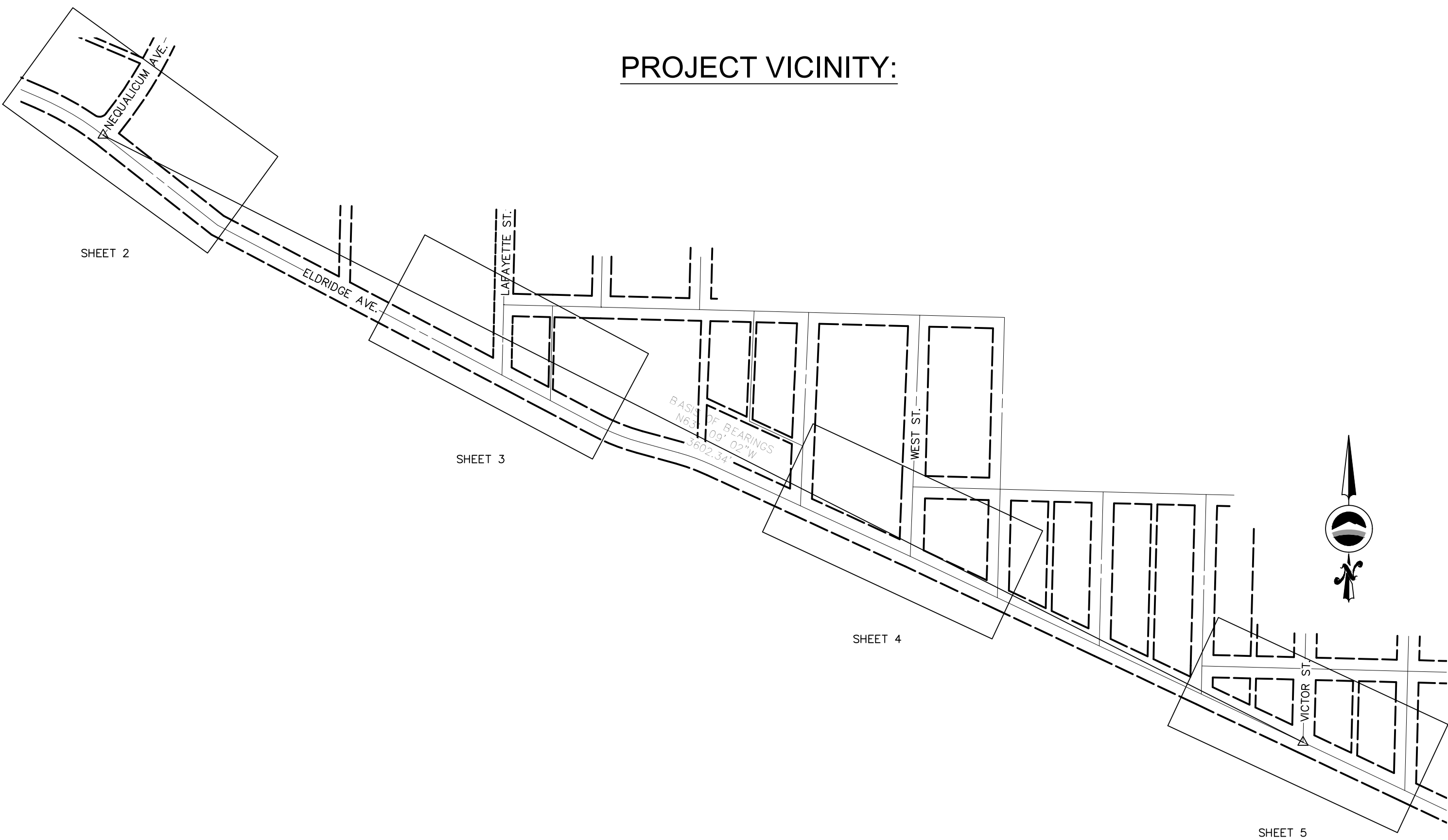
SHEET INDEX:

- SHEET 1: COVER SHEET & NOTES
SHEET 2: SURVEY CONTROL MAP - ELDRIDGE & NEQUALICUM
SHEET 3: SURVEY CONTROL MAP - ELDRIDGE & LAFAYETTE
SHEET 4: SURVEY CONTROL MAP - ELDRIDGE & WEST
SHEET 5: SURVEY CONTROL MAP - ELDRIDGE & VICTOR

LEGEND:

- △ SURVEY CONTROL
● SET 1/2" REBAR/CAP

PROJECT VICINITY:



	4		
	3	60% review	
	2		
	1		
Date	No	Revision	By

PROJECT ENGINEER _____
DESIGNED/DRAWN _____
INSPECTOR _____

DIRECTOR PUBLIC WORKS E.C.J. _____
CITY ENGINEER C.M.A.S. _____
ASSISTANT DIRECTOR M.A.O. _____

CITY OF BELLINGHAM, WASHINGTON
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

SCALE
Horiz. 1"= 250'
Vert. 1"= 5'

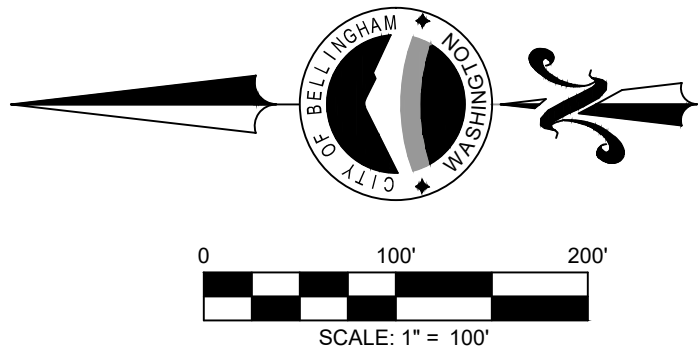
DATUM
NAD 83/98
NAVD 88

Job. No. ES563
Date 02/03/2023
Field Bk. MAP19_DGB21

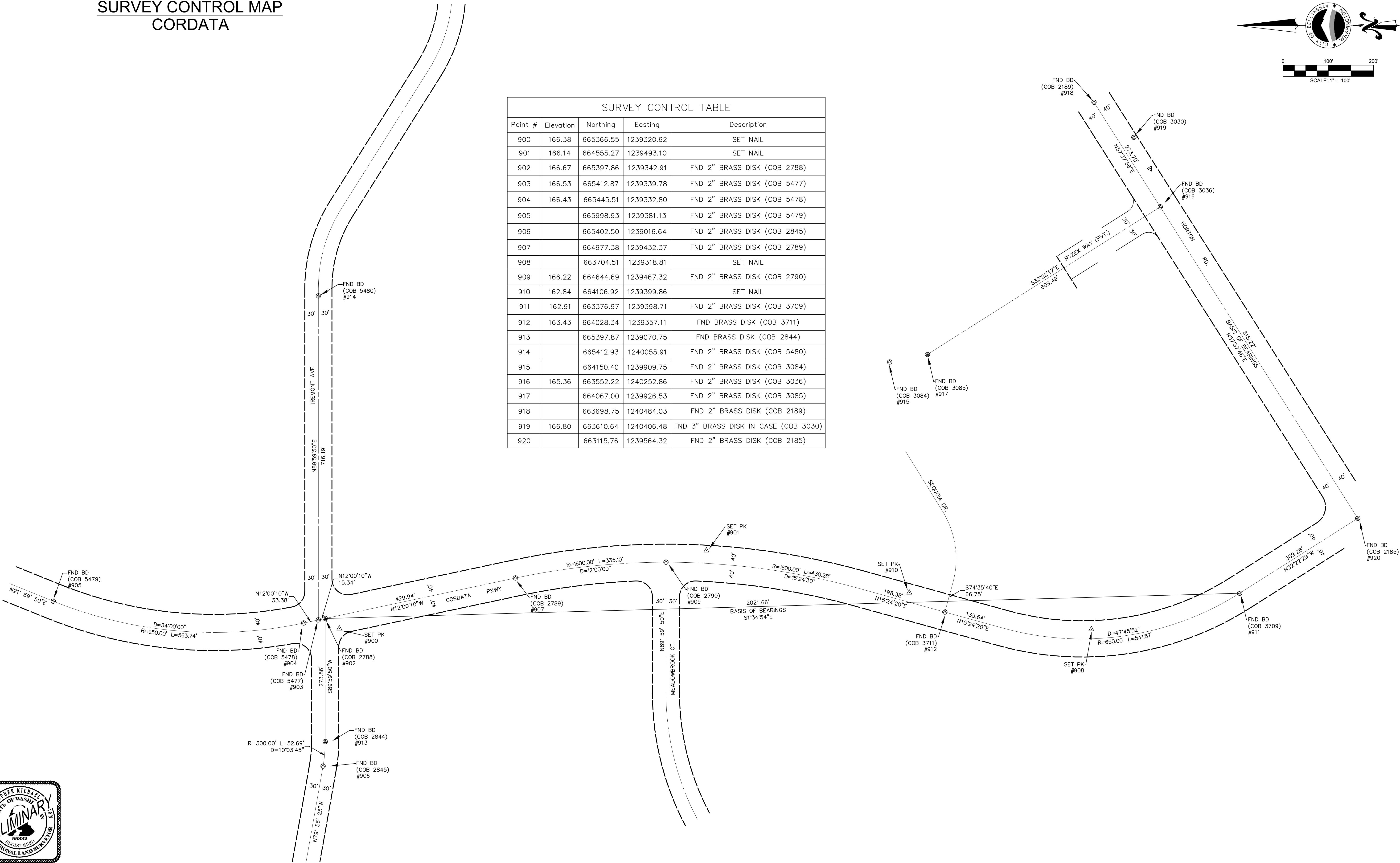
WEST SIDE NON-MOTORIZED IMPROVEMENTS
TOPOGRAPHIC EXISTING CONDITIONS

SHEET
1 OF
5

SURVEY CONTROL MAP
CORDATA



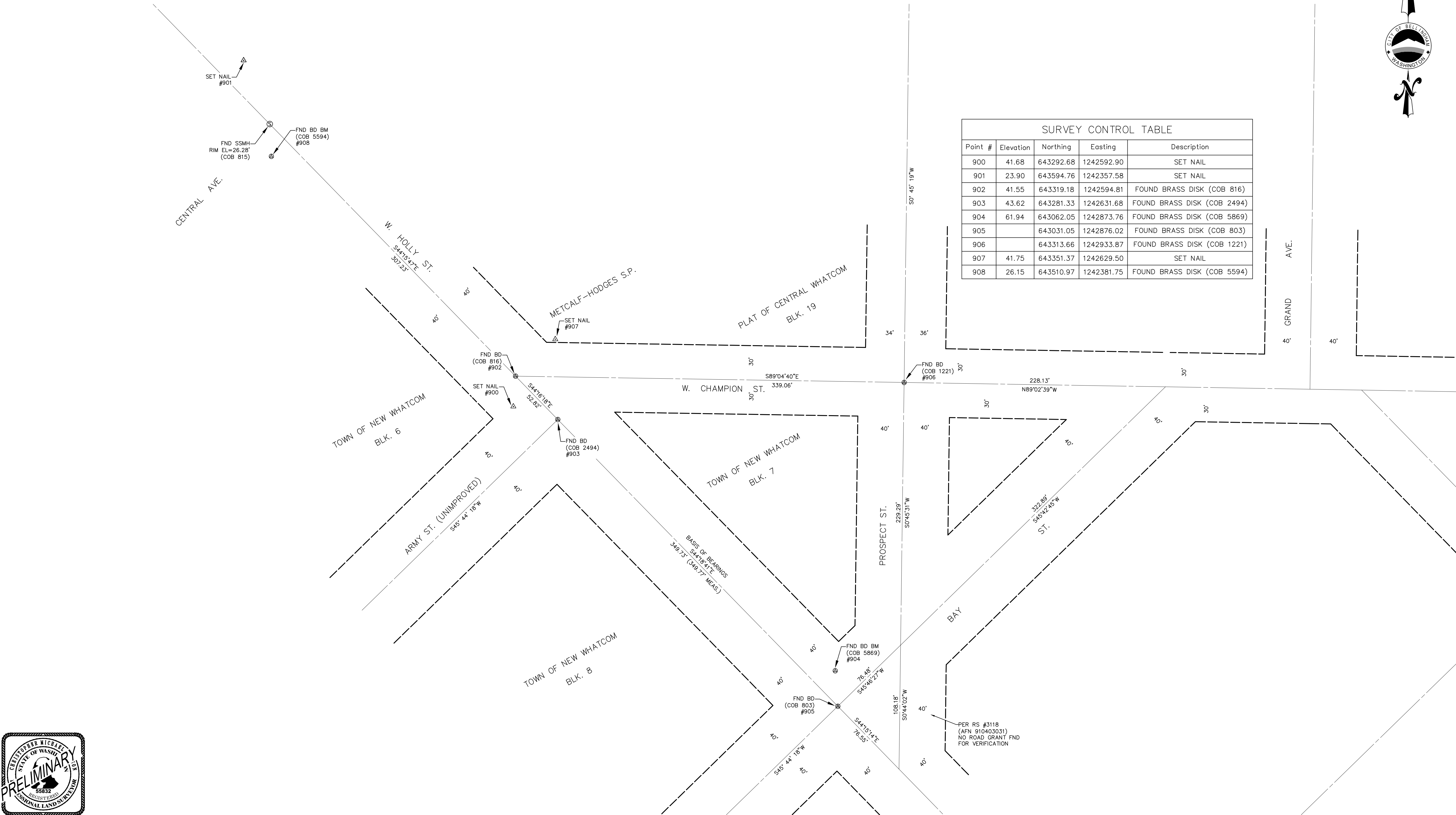
SURVEY CONTROL TABLE				
Point #	Elevation	Northing	Easting	Description
900	166.38	665366.55	1239320.62	SET NAIL
901	166.14	664555.27	1239493.10	SET NAIL
902	166.67	665397.86	1239342.91	FND 2" BRASS DISK (COB 2788)
903	166.53	665412.87	1239339.78	FND 2" BRASS DISK (COB 5477)
904	166.43	665445.51	1239332.80	FND 2" BRASS DISK (COB 5478)
905		665998.93	1239381.13	FND 2" BRASS DISK (COB 5479)
906		665402.50	1239016.64	FND 2" BRASS DISK (COB 2845)
907		664977.38	1239432.37	FND 2" BRASS DISK (COB 2789)
908		663704.51	1239318.81	SET NAIL
909	166.22	664644.69	1239467.32	FND 2" BRASS DISK (COB 2790)
910	162.84	664106.92	1239399.86	SET NAIL
911	162.91	663376.97	1239398.71	FND 2" BRASS DISK (COB 3709)
912	163.43	664028.34	1239357.11	FND BRASS DISK (COB 3711)
913		665397.87	1239070.75	FND BRASS DISK (COB 2844)
914		665412.93	1240055.91	FND 2" BRASS DISK (COB 5480)
915		664150.40	1239909.75	FND 2" BRASS DISK (COB 3084)
916	165.36	663552.22	1240252.86	FND 2" BRASS DISK (COB 3036)
917		664067.00	1239926.53	FND 2" BRASS DISK (COB 3085)
918		663698.75	1240484.03	FND 2" BRASS DISK (COB 2189)
919	166.80	663610.64	1240406.48	FND 3" BRASS DISK IN CASE (COB 3030)
920		663115.76	1239564.32	FND 2" BRASS DISK (COB 2185)



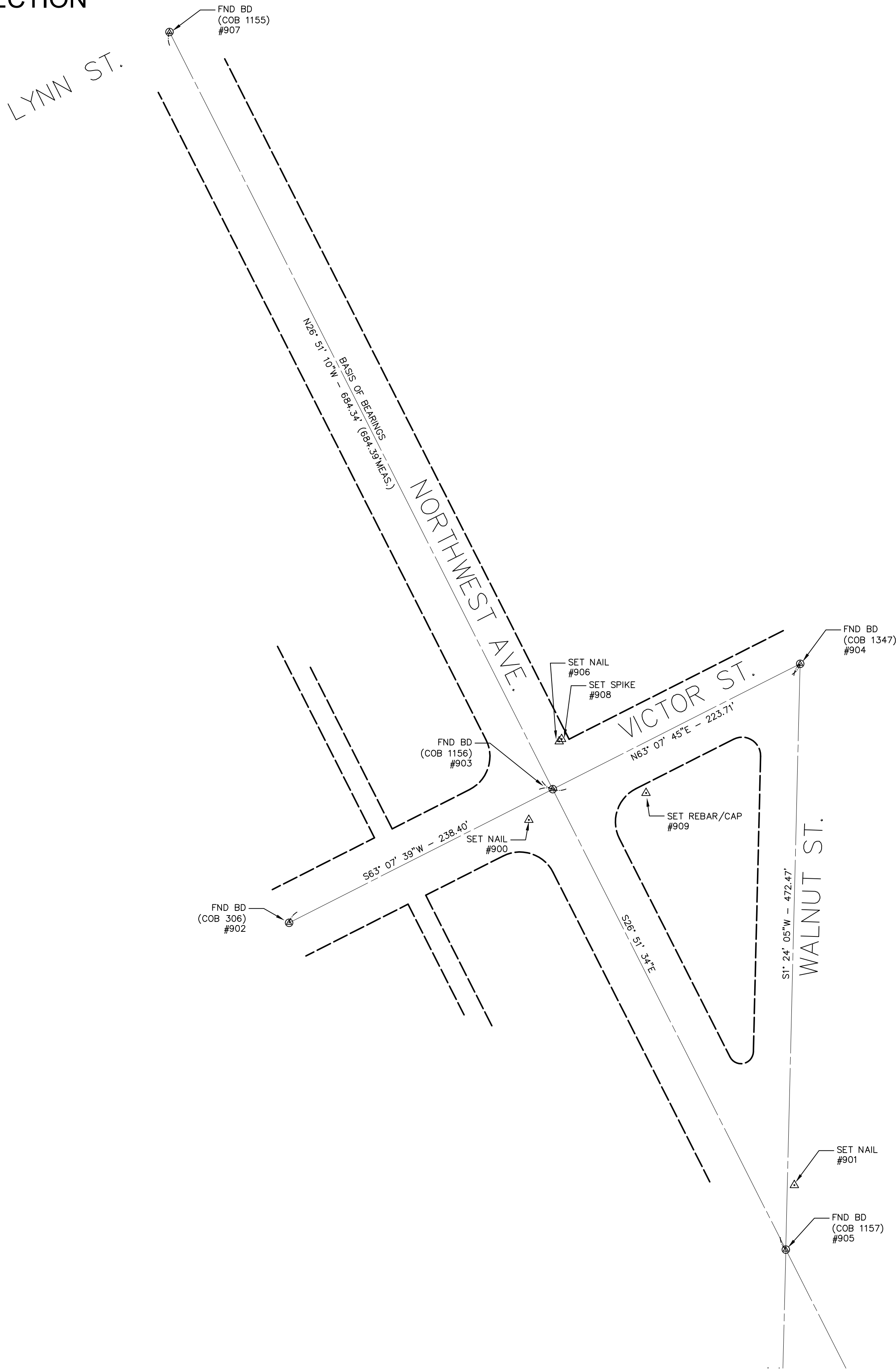
SURVEY CONTROL MAP
W. HOLLY ST. & W. CHAMPION ST. INTERSECTION



SURVEY CONTROL TABLE				
Point #	Elevation	Northing	Easting	Description
900	41.68	643292.68	1242592.90	SET NAIL
901	23.90	643594.76	1242357.58	SET NAIL
902	41.55	643319.18	1242594.81	FOUND BRASS DISK (COB 816)
903	43.62	643281.33	1242631.68	FOUND BRASS DISK (COB 2494)
904	61.94	643062.05	1242873.76	FOUND BRASS DISK (COB 5869)
905		643031.05	1242876.02	FOUND BRASS DISK (COB 803)
906		643313.66	1242933.87	FOUND BRASS DISK (COB 1221)
907	41.75	643351.37	1242629.50	SET NAIL
908	26.15	643510.97	1242381.75	FOUND BRASS DISK (COB 5594)



SURVEY CONTROL MAP
NORTHWEST AVE. & VICTOR ST. INTERSECTION



SURVEY CONTROL TABLE				
Point #	Elevation	Northing	Easting	Description
900	82.94	649946.14	1240263.02	SET NAIL
901	82.64	649651.60	1240477.22	SET NAIL
902	81.43	649863.17	1240069.62	FND 2" BRASS DISK (COB 306)
903	83.59	649970.96	1240282.29	FND 2" BRASS DISK (COB 1156)
904	84.28	650072.06	1240481.90	FND 2" BRASS DISK (COB 1347)
905	82.76	649599.57	1240470.33	FND 2" BRASS DISK (COB 1157)
906	83.09	650009.47	1240287.55	SET NAIL
907	83.48	650581.56	1239973.15	FND 2" BRASS DISK (COB 1155)
908	84.41	650011.34	1240289.46	SET GIN SPIKE IN UTILITY POLE
909	82.68	649967.84	1240357.58	SET 1/2" REBAR/CAP



	4			
	3			
	2			
	1			
Date	No	Revision	By	

PROJECT ENGINEER	
DESIGNED/DRAWN	
INSPECTOR	

DIRECTOR	PUBLIC WORKS E.C.J.
CITY ENGINEER	C.M.A.S.
ASSISTANT DIRECTOR	M.A.O.

CITY OF BELLINGHAM, WASHINGTON
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

SCALE	
Horiz.	1"= 60'
Vert.	N/A

DATUM	
NAD 83/98	
NAVD 88	

Job. No.	ES563
Date	04/11/2023
Field Bk.	1068-1

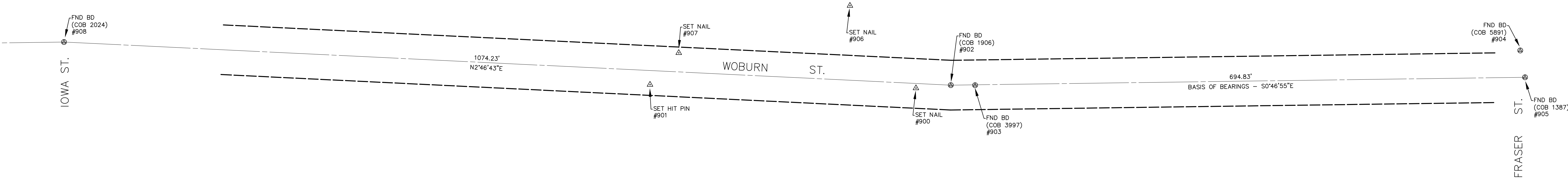
WEST SIDE NON-MOTORIZED IMPROVEMENTS
NORTHWEST AVE. & VICTOR ST.

SHEET	2	OF	2
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SURVEY CONTROL MAP
WOBURN ST.



SURVEY CONTROL TABLE				
Point #	Elevation	Northing	Easting	Description
900	97.51	643764.61	1251538.95	SET NAIL
901	82.88	644086.38	1251543.17	SET HIT PIN
902	99.77 (R=99.89)	643722.45	1251542.62	FND BRASS DISK (COB 1906)
903	101.28	643693.12	1251542.46	FND BRASS DISK (COB 3997)
904	136.30	643033.50	1251584.47	FND BRASS DISK (COB 5891)
905	136.27	643027.70	1251552.10	FND BRASS DISK (COB 1387)
906	—	643844.44	1251638.60	SET NAIL
907	—	644051.58	1251581.61	SET HIT PIN
908	—	644795.42	1251594.70	FND BRASS DISK (COB 2024) LS46896



	4		
	3		
	2		
	1		
Date	No	Revision	By

PROJECT ENGINEER	
DESIGNED/DRAWN	
INSPECTOR	

DIRECTOR PUBLIC WORKS	E.C.J.
CITY ENGINEER	C.M.A.S.
ASSISTANT DIRECTOR	M.A.O.

CITY OF BELLINGHAM, WASHINGTON
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

SCALE
Horiz. 1"= 60'
Vert. N/A

DATUM
NAD 83/98
NAVD 88

Job. No.	ES563
Date	04/11/2023
Field Bk.	1068-1

WEST SIDE NON-MOTORIZED IMPROVEMENTS
WOBURN ST.

SHEET	OF
2	2

CONSTRUCTION STORMWATER POLLUTION PREVENTION (SWPPP) PLAN

THE BOUNDARIES OF THE CLEARING LIMITS SHOWN ON THIS PLAN SHALL BE CLEARLY FLAGGED IN THE FIELD PRIOR TO CONSTRUCTION. DURING THE CONSTRUCTION PERIOD, NO DISTURBANCE BEYOND THE FLAGGED CLEARING LIMITS SHALL BE PERMITTED. THE FLAGGING SHALL BE MAINTAINED BY THE CONTRACTOR FOR THE DURATION OF CONSTRUCTION.

THE TESC FACILITIES SHOWN ON THE PLANS MUST BE CONSTRUCTED IN CONJUNCTION WITH ALL CLEARING AND GRADING ACTIVITIES AND IN SUCH A MANNER AS TO INSURE THAT SEDIMENT LADEN WATER DOES NOT ENTER THE DRAINAGE SYSTEM OR VIOLATE APPLICABLE WATER STANDARDS.

THE TESC FACILITIES SHOWN ON THE PLANS ARE THE MINIMUM REQUIREMENTS FOR ANTICIPATED SITE CONDITIONS. DURING THE CONSTRUCTION PERIOD, THESE TESC FACILITIES SHALL BE UPGRADED (E.G., ADDITIONAL SUMPS, RELOCATION OF DITCHES AND SILT FENCES, ETC.) AS NEEDED FOR UNEXPECTED STORM EVENTS.

THE TESC FACILITIES SHALL BE INSPECTED DAILY BY THE CONTRACTOR AND MAINTAINED AS NECESSARY TO ENSURE THEIR CONTINUED FUNCTIONING.

AT NO TIME SHALL MORE THAN ONE FOOT OF SEDIMENT BE ALLOWED TO ACCUMULATE WITHIN A CATCH BASIN. ALL CATCH BASINS AND CONVEYANCE LINES SHALL BE CLEANED PRIOR TO PAVING. THE CLEANING OPERATION SHALL NOT FLUSH SEDIMENT LADEN WATER INTO THE DOWNSTREAM SYSTEM.

WHERE SEEDING FOR TEMPORARY EROSION CONTROL IS REQUIRED, FAST GERMINATING GRASSES SHALL BE APPLIED AT AN APPROPRIATE RATE (E.G., ANNUAL OR PERENNIAL RYE APPLIED AT APPROXIMATELY 80 POUNDS PER ACRE).

WHERE STRAW MULCH FOR TEMPORARY EROSION CONTROL IS REQUIRED, IT SHALL BE APPLIED AT A MINIMUM THICKNESS OF TWO INCHES.

SLURRY AND PROCESS WATER RESULTING FROM SAW CUTTING AND ASPHALT COLD-PLANING SHALL BE COLLECTED AND DISPOSED OF IN A MANNER THAT DOES NOT VIOLATE GROUNDWATER OR SURFACE WATER QUALITY PER DOE BMP C151 AND BMP C152: CONCRETE HANDLING AND SAW CUTTING AND SURFACE POLLUTION PREVENTION RESPECTIVELY.

PROCESS WATER THAT IS GENERATED DURING HYDRO-DEMOLITION, SURFACE ROUGHENING, OR SIMILAR OPERATIONS SHALL NOT DRAIN TO ANY NATURAL OR CONSTRUCTED DRAINAGE CONVEYANCE AND SHALL BE DISPOSED OF IN A MANNER THAT DOES NOT VIOLATE GROUND WATER OR SURFACE WATER QUALITY STANDARDS

EROSION/SEDIMENTATION CONTROL FACILITIES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE DETAILS IN THESE PLANS. LOCATIONS MAYBE MOVED TO SUIT FIELD CONDITIONS, SUBJECT TO APPROVAL BY THE ENGINEER AND THE CITY INSPECTOR.

CONSTRUCTION STORMWATER POLLUTION PREVENTION ELEMENTS 1-13

ELEMENT 1: PRESERVE VEGETATION/MARK CLEARING LIMITS

1. PRIOR TO BEGINNING LAND DISTURBING ACTIVITIES (INCLUDING CLEARING AND GRADING) CLEARLY MARK ALL CLEARING LIMITS AND TREES THAT ARE TO BE PRESERVED WITHIN THE CONSTRUCTION AREA AS SHOWN ON THE DRAWINGS.
2. SILT FENCE, GEOTEXTILE ENCASED BARRIERS, CONSTRUCTION FENCE, ORANGE PLASTIC FENCE, OR OTHER APPROVED MEASURES MAY BE USED TO MARK THE CLEARING LIMITS IN ADDITION TO THE CONSTRUCTION FENCING SHOWN ON THE PLAN.
3. THE DUFF LAYER, NATIVE TOPSOIL, AND NATURAL VEGETATION SHALL BE RETAINED IN AN UNDISTURBED STATE TO THE MAXIMUM DEGREE PRACTICABLE.

SUGGESTED BMP's/BMP's TO BE USED:
* BMP C103: HIGH VISIBILITY PLASTIC OR METAL FENCE

ELEMENT 2: ESTABLISH CONSTRUCTION ACCESS

IF SEDIMENT IS TRACKED OFF SITE, PUBLIC ROADS SHALL BE CLEANED THOROUGHLY AT THE END OF EACH DAY, OR MORE FREQUENTLY DURING WET WEATHER. SEDIMENT SHALL BE REMOVED FROM ROADS BY SHOVELING OR PICKUP SWEEPING AND SHALL BE TRANSPORTED TO A CONTROLLED SEDIMENT DISPOSAL AREA.

SUGGESTED BMP's/BMP's TO BE USED:
* BMP C107: CONSTRUCTION ROAD/PARKING AREA STABILIZATION

ELEMENT 3: CONTROL FLOW RATES

PROPERTIES AND WATERWAYS DOWNSTREAM FROM DEVELOPMENT SITES SHALL BE PROTECTED FROM EROSION DUE TO INCREASES IN THE VELOCITY AND PEAK VOLUMETRIC FLOW RATE OF STORMWATER RUNOFF FROM THE PROJECT SITE.

SUGGESTED BMP's/BMP's TO BE USED:
* BMP C240: SEDIMENT TRAP

ELEMENT 4: INSTALL SEDIMENT CONTROLS

1. THE DUFF LAYER, NATIVE SOIL, AND NATURAL VEGETATION SHALL BE RETAINED IN AN UNDISTURBED STATE TO THE MAXIMUM EXTENT PRACTICABLE.
2. SEDIMENT CONTROL BMP'S SHALL BE CONSTRUCTED AS ONE OF THE FIRST STEPS IN GRADING. THESE BMP'S SHALL BE FUNCTIONAL BEFORE OTHER LAND DISTURBING ACTIVITIES TAKE PLACE.
3. PRIOR TO LEAVING THE CONSTRUCTION SITE, STORMWATER RUNOFF FROM DISTURBED AREAS SHALL PASS THROUGH AN APPROPRIATE SEDIMENT REMOVAL BMP'S. RUNOFF FROM FULL STABILIZED AREAS MAY BE DISCHARGED WITHOUT A SEDIMENT REMOVAL BMP, BUT MUST MEET PERFORMANCE STANDARDS OF CONTROL FLOW RATES.

SUGGESTED BMP's/BMP's TO BE USED:
* BMP C208: TRIANGULAR SILT DIKE
* BMP C231: BRUSH BARRIER
* BMP C232: GRAVEL FILTER BERMS
* BMP C233: SILT FENCE
* BMP C234: VEGETATED STRIP
* BMP C235: STRAW WATTLES
* BMP C240: SEDIMENT TRAP
* BMP C251: CONSTRUCTION STORMWATER FILTRATION (SCREEN, BAG, OR FIBER FILTERS)

ELEMENT 5: STABILIZE SOILS

1. EXPOSED AND UNWORKED SOILS SHALL BE STABILIZED BY APPLICATION OF EFFECTIVE BMP'S THAT PROTECT THE SOIL FROM EROSIIVE FORCES OF RAINDROPS, FLOWING WATER, AND WIND.
2. TO PREVENT EROSION, NO SOILS SHALL REMAIN EXPOSED AND UNWORKED FOR MORE THAN THE TIME PERIODS SET FORTH BELOW:
* DURING THE WET SEASON (OCTOBER 1-APRIL 30): 2 DAYS
* DURING THE DRY SEASON (MAY 1-SEPT. 30): 7 DAYS
THIS STABILIZATION REQUIREMENT APPLIES TO ALL SOILS ON SITE, WHETHER AT FINAL GRADE OR NOT. THESE TIMES MAY BE ADJUSTED BY THE LOCAL PERMITTING AUTHORITY IF IT CAN BE SHOWN THAT SITE CONDITIONS OR THE AVERAGE TIME BETWEEN STORM EVENTS JUSTIFIES A DIFFERENT STANDARD.
3. SOILS SHALL BE STABILIZED AT THE END OF THE SHIFT BEFORE A HOLIDAY OR WEEKEND IF NEEDED BASED ON THE WEATHER FORECAST.
4. SOIL STOCKPILES SHALL BE STABILIZED FROM EROSION, PROTECTED WITH SEDIMENT TRAPPING MEASURES, AND WHERE POSSIBLE, BE LOCATED AWAY FROM STORM DRAIN INLETS, WATERWAYS, AND DRAINAGE CHANNELS.
5. APPLICABLE BMP'S INCLUDE, BUT ARE NOT LIMITED TO: TEMPORARY AND PERMANENT SEEDING, SODDING, MULCHING, PLASTIC COVERING, EROSION CONTROL FABRICS AND MATTING, THE EARLY APPLICATION OF GRAVEL BASE ON AREAS TO BE PAVED AND DUST CONTROL. SELECT SOIL STABILIZATION MEASURES SHALL BE APPROPRIATE FOR THE TIME OF YEAR, SITE CONDITIONS, ESTIMATED DURATION OF USE, AND THE POTENTIAL WATER QUALITY IMPACTS.
6. REMOVE ALL TESC MEASURES AS SOON AS PRACTICAL AFTER ESTABLISHMENT OF UNIFORM GRASS GROWTH OR INSTALLATION OF OTHER PERMANENT STABILIZATION MEASURES. REPAIR ANY DAMAGE TO STABILIZED SURFACES AFTER REMOVAL OF TESC MEASURES.

SUGGESTED BMP's/BMP's TO BE USED:
* BMP C120: TEMPORARY AND PERMANENT SEEDING
* BMP C121: MULCHING
* BMP C124: SODDING
* BMP C140: DUST CONTROL

ELEMENT 6: PROTECT SLOPES

1. DESIGN, CONSTRUCT, AND PHASE CUT AND FILL SLOPES IN A MANNER THAT WILL MINIMIZE EROSION. APPLICABLE PRACTICES INCLUDE, BUT ARE NOT LIMITED TO, REDUCING CONTINUOUS LENGTH OF SLOPE WITH TERRACING AND DIVERSIONS, REDUCING SLOPE STEEPNESS, AND ROUGHENING SLOPE SURFACES (E.G., TRACK WALKING).
2. OFF-SITE STORMWATER RUNOFF OR GROUNDWATER SHALL BE DIVERTED AWAY FROM SLOPES AND DISTURBED AREAS WITH INTERCEPTOR DIKES, PIPES, AND OR SWALES. OFF-SITE STORMWATER SHOULD BE MANAGED SEPARATELY FROM STORMWATER GENERATED ON THE SITE.

SUGGESTED BMP's/BMP's TO BE USED:
* BMP C126: NETS AND BLANKETS
* BMP C123: PLASTIC COVERING
* BMP C130: SURFACE ROUGHENING

ELEMENT 7: PROTECT DRAIN INLETS

ALL STORM DRAIN INLETS OPERABLE DURING CONSTRUCTION AND ALL INLETS WITHIN 200' DOWNSTREAM OF THE PROJECT SITE SHALL BE PROTECTED WITH CATCH BASIN FILTERS SO THAT STORMWATER RUNOFF DOES NOT ENTER THE CONVEYANCE SYSTEM WITHOUT FIRST BEING FILTERED OR TREATED TO REMOVE SEDIMENT. CATCH BASIN FILTERS IN THE ROADWAY WILL BE OIL/SEDIMENT FILTERS AND CATCH BASIN FILTERS OUTSIDE OF THE ROADWAY WILL BE SEDIMENT FILTERS.

SUGGESTED BMP's/BMP's TO BE USED
* BMP C260: STORM DRAIN INLET PROTECTION

ELEMENT 8: STABILIZE CHANNELS AND OUTLETS:

1. ALL TEMPORARY ON-SITE CONVEYANCE CHANNELS SHALL BE DESIGNED, CONSTRUCTED AND STABILIZED TO PREVENT EROSION FROM THE EXPECTED PEAK 10 MINUTE VELOCITY OF FLOW FROM A TYPE 1A, 10-YEAR, 24-HOUR FREQUENCY STORM FOR THE DEVELOPED CONDITION. ALTERNATIVELY, THE 10-YEAR, 1-HOUR FLOW RATE INDICATED BY AN APPROVED CONTINUOUS RUNOFF MODEL, CREASED BY A FACTOR OF 1.6, MAY BE USED.
2. STABILIZATION, INCLUDING ARMORING MATERIAL, ADEQUATE TO PREVENT EROSION OF OUTLETS, ADJACENT STREAM BANKS, SLOPES AND DOWNSTREAM REACHES SHALL BE PROVIDED AT THE OUTLETS OF ALL CONVEYANCE SYSTEMS.

SUGGESTED BMP's/BMP's TO BE USED
* BMP C209: OUTLET PROTECTION

ELEMENT 9: CONTROL POLLUTANTS

1. ALL POLLUTANTS, INCLUDING WASTE MATERIALS AND DEMOLITION DEBRIS, THAT OCCUR ON SITE SHALL BE HANDLED AND DISPOSED OF IN A MANNER THAT DOES NOT CAUSE CONTAMINATION OF STORMWATER.
2. COVER, CONTAINMENT, AND PROTECTION FROM VANDALISM SHALL BE PROVIDED FOR ALL CHEMICALS, LIQUID PRODUCTS, PETROLEUM PRODUCTS, AND OTHER MATERIALS THAT HAVE THE POTENTIAL TO POSE A THREAT TO HUMAN HEALTH OR THE ENVIRONMENT. ON-SITE FUELING TANKS SHALL INCLUDE SECONDARY CONTAINMENT.
3. MAINTENANCE, FUELING, AND REPAIR OF HEAVY EQUIPMENT AND VEHICLES SHALL BE CONDUCTED USING SPILL PREVENTION AND CONTROL MEASURES. CONTAMINATED SURFACES SHALL BE CLEANED IMMEDIATELY FOLLOWING ANY SPILL INCIDENT.
4. BMP'S SHALL BE USED TO PREVENT OR TREAT CONTAMINATION OF STORMWATER RUNOFF BY PH MODIFYING SOURCES. THESE SOURCES INCLUDE, BUT ARE NOT LIMITED TO: BULK CEMENT, CEMENT KILN DUST, FLY ASH, NEW CONCRETE WASHING AND CURING WATERS, WASTE STREAMS GENERATED FROM CONCRETE GRINDING AND SAWING, EXPOSED AGGREGATE PROCESSES, AND CONCRETE PUMPING AND MIXER WASHOUT WATERS. PERMITTEES SHALL ADJUST THE PH OF STORMWATER IF NECESSARY TO PREVENT VIOLATIONS OF WATER QUALITY STANDARDS.

SUGGESTED BMP's/BMP's TO BE USED:
* BMP C151: CONCRETE HANDLING
* BMP C152: SAWCUTTING AND SURFACING POLLUTION PREVENTION
* BMP C153: MATERIAL DELIVERY, STORAGE AND CONTAINMENT

ELEMENT 10: CONTROL DEWATERING

1. FOUNDATION, VAULT, AND TRENCH DE-WATERING WATER, WHICH HAVE SIMILAR CHARACTERISTICS TO STORMWATER RUNOFF AT THE SITE, SHALL BE DISCHARGED INTO A CONTROLLED CONVEYANCE SYSTEM PRIOR TO DISCHARGE TO A SEDIMENT TRAP OF SEDIMENT POND.
2. CLEAN, NON-TURBID DE-WATERING WATER, SUCH AS WELL-POINT GROUND WATER, CAN BE DISCHARGED TO SYSTEMS TRIBUTARY TO, OR DIRECTLY INTO SURFACE WATERS OF THE STATE, AS SPECIFIED IN ELEMENT #8, PROVIDED THE DE-WATERING FLOW DOES NOT CAUSE EROSION OR FLOODING OF RECEIVING WATERS. CLEAN DE-WATERING WATER SHOULD NOT BE ROUTED THROUGH STORMWATER SEDIMENT PONDS.
3. OTHER DE-WATERING DISPOSAL OPTIONS MAY INCLUDE:
* INFILTRATION.
* TRANSPORT OFF SITE IN A VEHICLE, SUCH AS A VACUUM FLUSH TRUCK, FOR LEGAL DISPOSAL IN A MANNER THAT DOES NOT POLLUTE STATE WATERS.
* ECOLOGY APPROVED ON-SITE CHEMICAL TREATMENT OR OTHER SUITABLE TREATMENT TECHNOLOGIES.
* SANITARY SEWER DISCHARGE WITH LOCAL SEWER DISTRICT APPROVAL, IF THERE IS NO OTHER OPTION.
* USE OF A SEDIMENTATION BAG (DIRTBAG OR APPROVED EQUAL) WITH OUTFALL TO A DITCH OR SWALE FOR SMALL VOLUMES OF LOCALIZED DE-WATERING.
4. HIGHLY TURBID, CONTAMINATED DEWATERING WATER FROM CONSTRUCTION EQUIPMENT OPERATION, CLAMSHELL DIGGING, CONCRETE TREMIE POUR, OR WORK INSIDE A COFFERDAM SHALL BE HANDLED SEPARATELY FROM STORMWATER.

SUGGESTED BMP's/BMP's TO BE USED:
* BMP C205: SUBSURFACE DRAINS

ELEMENT 11: MAINTAIN BMP's

WHEN SEDIMENT ACCUMULATION IN SEDIMENTATION STRUCTURES, OTHER THAN INLET PROTECTION DEVICES, HAS REACHED A POINT ONE-THIRD DEPTH OF SEDIMENT STRUCTURE OR DEVICE, OR IF FLOW THROUGH THE DEVICE IS REDUCED BY MORE THAN ONE-THIRD CAPACITY, THE CONTRACTOR SHALL REMOVE AND REPLACE DISPOSABLE DEVICES OR CLEAN AND DISPOSE OF SEDIMENT.

TEMPORARY EROSION AND SEDIMENT CONTROL BMP'S SHALL BE REMOVED WITHIN 30 DAYS AFTER FINAL SITE STABILIZATION IS ACHIEVED OR AFTER THE TEMPORARY BMP'S ARE NO LONGER NEEDED. TRAPPED SEDIMENT SHALL BE REMOVED OR STABILIZED ON SITE. DISTURBED SOILS SHALL BE PERMANENTLY STABILIZED.

SUGGESTED BMP's/BMP's TO BE USED:
* BMP C150: MATERIALS ON HAND

ELEMENT 12: MANAGE THE PROJECT

SEASONAL WORK LIMITATIONS FROM OCTOBER 1 THROUGH APRIL 30, CLEARING, GRADING, AND OTHER SOIL DISTURBING ACTIVITIES SHALL ONLY BE PERMITTED IF SHOWN TO THE SATISFACTION OF THE LOCAL PERMITTING AUTHORITY THAT THE TRANSPORT OF SEDIMENT FROM THE CONSTRUCTION SITE TO RECEIVING WATERS WILL BE PREVENTED THROUGH A COMBINATION OF THE FOLLOWING:
A) SITE CONDITIONS INCLUDING EXISTING VEGETATIVE COVERAGE, SLOPE, SOIL TYPE AND PROXIMITY TO RECEIVING WATERS; AND
B) LIMITATIONS ON ACTIVITIES AND THE EXTENT OF DISTURBED AREAS; AND
C) PROPOSED EROSION AND SEDIMENT CONTROL MEASURES.

THE CONTRACTOR WILL DESIGNATE A CONTRACTOR EROSION AND SPILL CONTROL LEAD (CESCL) WHO WILL BE RESPONSIBLE FOR INSPECTING, MAINTAINING AND ARRANGING FOR REPAIRS TO BE MADE TO BMP'S TO ASSURE CONTINUED PERFORMANCE OF THEIR INTENDED FUNCTION.

BASED ON THE INFORMATION PROVIDED AND LOCAL WEATHER CONDITIONS, THE LOCAL PERMITTING AUTHORITY MAY EXPAND OR RESTRICT THE SEASONAL LIMITATION ON SITE DISTURBANCE. THE LOCAL PERMITTING AUTHORITY SHALL TAKE ENFORCEMENT ACTION—SUCH AS NOTICE OF VIOLATION, ADMINISTRATIVE ORDER, PENALTY OR STOP-WORK ORDER—UNDER THE FOLLOWING CIRCUMSTANCES:

- * IF, DURING THE COURSE OF ANY CONSTRUCTION ACTIVITY OR SOIL DISTURBANCE DURING THE SEASONAL LIMITATION PERIOD, SEDIMENT LEAVES THE CONSTRUCTION SITE CAUSING A VIOLATION OF THE SURFACE WATER QUALITY STANDARD OR
- * IF CLEARING AND GRADING LIMITS OR EROSION AND SEDIMENT CONTROLS MEASURES SHOWN IN THE APPROVED PLAN ARE NOT MAINTAINED.

SUGGESTED BMP's/BMP's TO BE USED:
* BMP C160: CERTIFIED EROSION AND SEDIMENT CONTROL LEAD
* BMP C162: SCHEDULING

ELEMENT 13: PROTECT LOW IMPACT DEVELOPMENT BMP'S

THERE ARE NO LID BMP'S ON-SITE. LID BMP'S ARE PERMANENT FACILITIES. ANY ADJACENT BMP'S ARE TO BE ADDRESSED AS FOLLOWS:

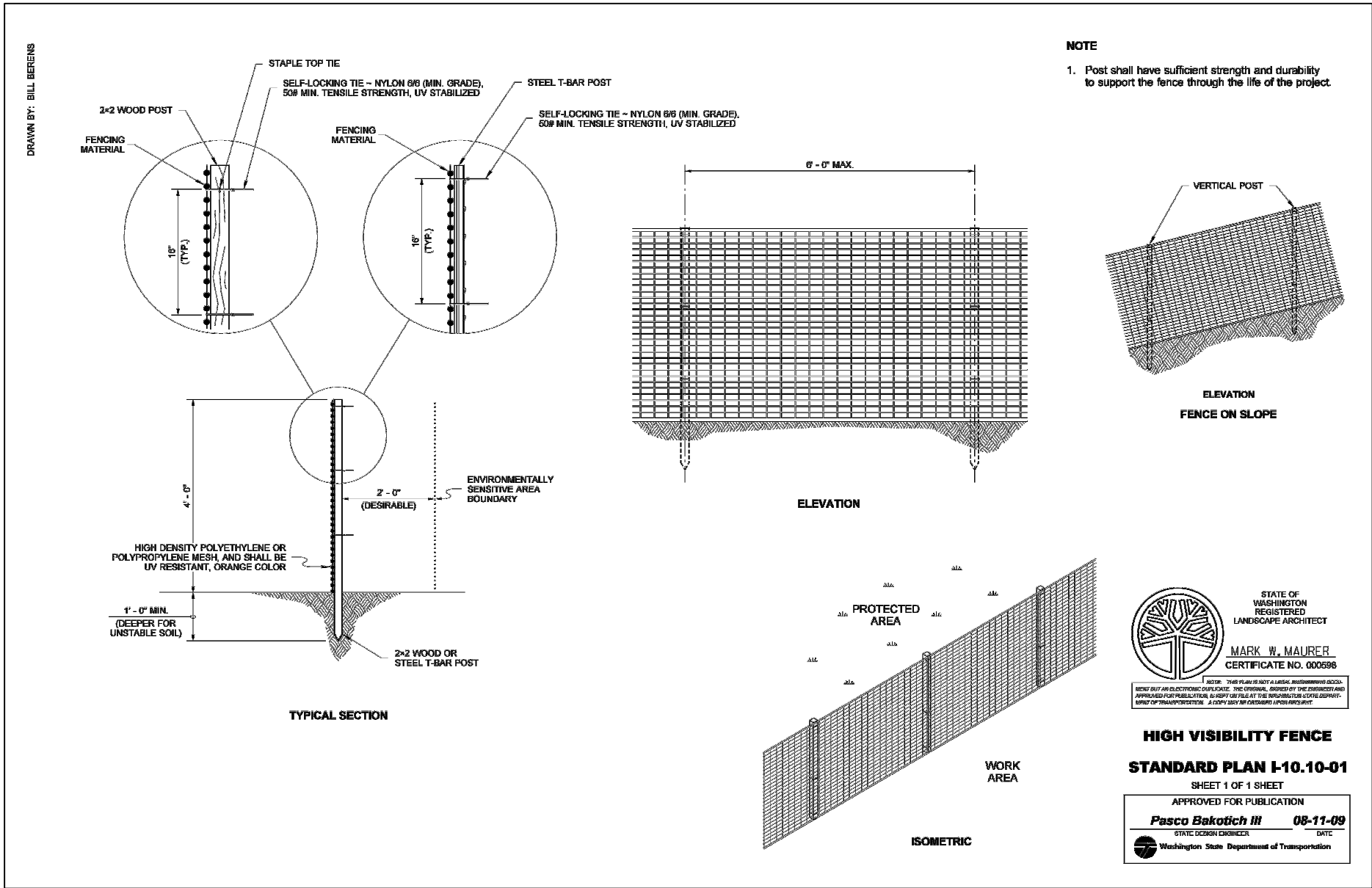
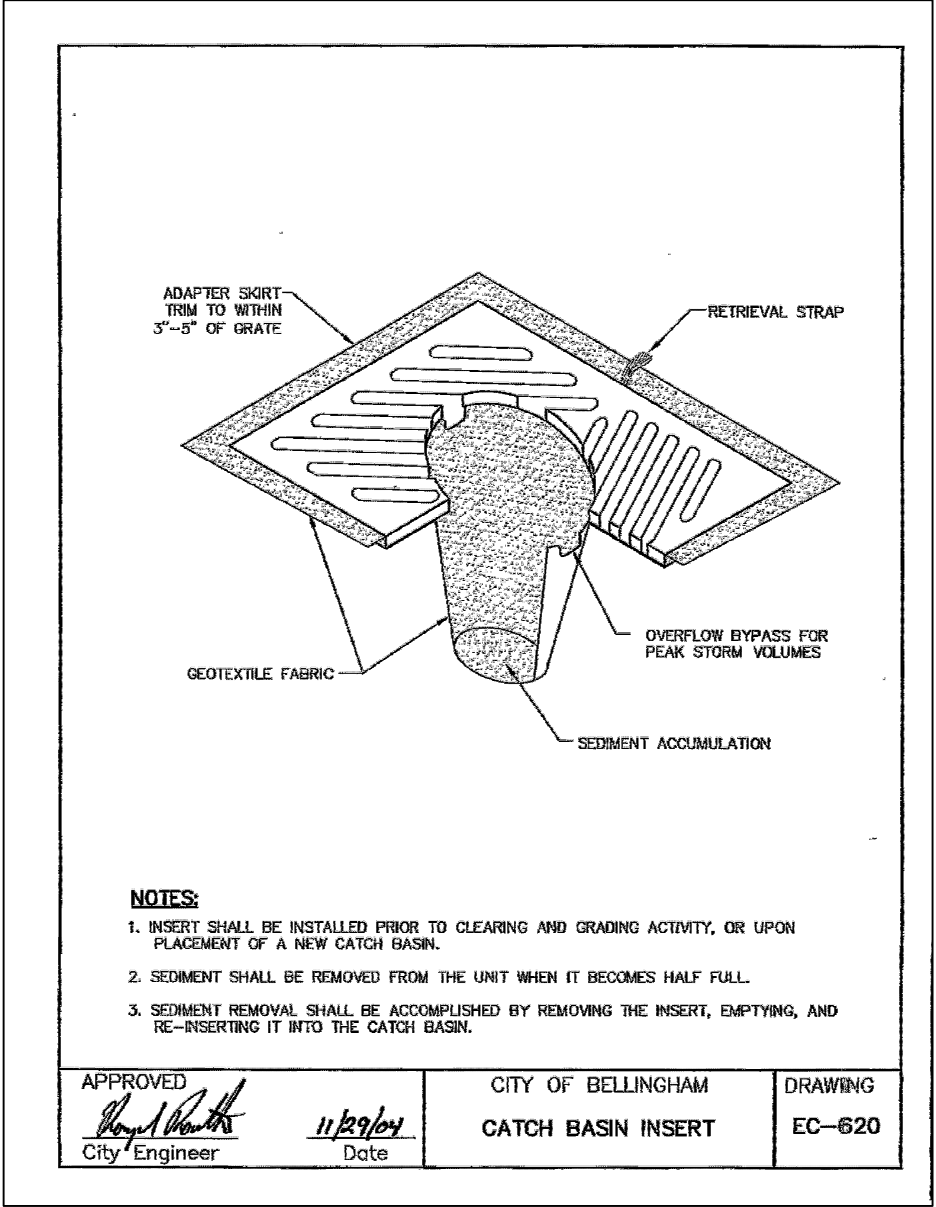
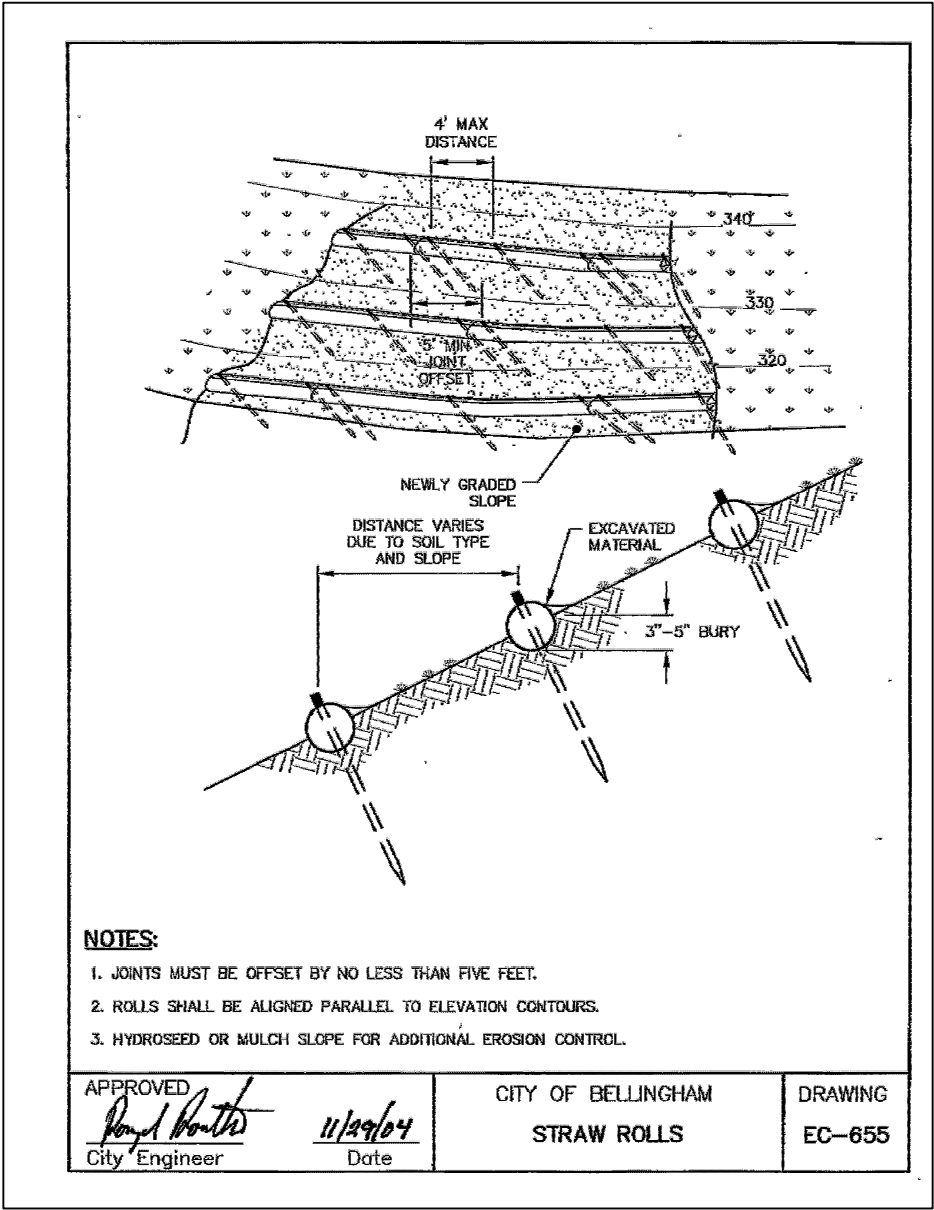
a)CONTRACTOR SHALL PROTECT ALL BIORETENTIONS AND RAIN GARDEN FACILITIES FROM SEDIMENTATION THROUGH INSTALLATION AND MAINTENANCE OF EROSION AND SEDIMENT CONTROL BMP'S ON PORTIONS OF THE SITE THAT DRAIN INTO THE BIORETENTION AND/OR RAIN GARDEN FACILITIES. RESTORE THE FACILITIES TO THEIR FULLY FUNCTIONING CONDITION IF THEY ACCUMULATE SEDIMENT DURING CONSTRUCTION. RESTORING THE FACILITY MUST INCLUDE REMOVAL OF SEDIMENTS AND ANY SEDIMENT-LADEN BIORETENTION GARDEN SOILS, AND REPLACING THE REMOVED SOILS WITH SOILS MEETING THE DESIGN SPECIFICATION.

b)CONTRACTOR SHALL MAINTAIN THE INFILTRATION CAPABILITIES OF BIORETENTION AND RAIN GARDEN FACILITIES BY PROTECTING AGAINST COMPACTION BY CONSTRUCTION EQUIPMENT AND FOOT TRAFFIC. PROTECT COMPLETED LAWN AND LANDSCAPED AREAS FROM COMPACTION DUE TO CONSTRUCTION EQUIPMENT.

c)CONTRACTOR SHALL CONTROL EROSION AND AVOID INTRODUCING SEDIMENT FROM SURROUNDING LAND USES ONTO PERMEABLE PAVEMENTS. DO NOT ALLOW MUDDY CONSTRUCTION EQUIPMENT ON THE BASE MATERIAL OR PAVEMENT. DO NOT ALLOW SEDIMENT-LADEN RUNOFF ONTO PERMEABLE PAVEMENTS.

d)CONTRACTOR SHALL CLEAN PERMEABLE PAVEMENTS FOULED WITH SEDIMENTS OR NO LONGER PASSING AN INITIAL INFILTRATION TEST USING LOCAL STORMWATER MANUAL METHODOLOGY OR THE MANUFACTURERS PROCEDURES.

e)CONTRACTOR SHALL KEEP ALL HEAVY EQUIPMENT OFF EXISTING SOILS UNDER LID FACILITIES THAT HAVE BEEN EXCAVATED TO FINAL GRADE TO RETAIN THE INFILTRATION RATE OF THE SOILS.



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	2	60% review	
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Date	No	Revision	By

PROJECT ENGINEER	JJB
DESIGNED/DRAWN	ELH
INSPECTOR	?

DIRECTOR OF PUBLIC WORKS	E.C.J.
CITY ENGINEER	C.M.A.S.
OPERATIONS ENGINEER	M.A.O.

CITY OF BELLINGHAM, WASHINGTON
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

SCALE
Horiz. 1"=20'
Vert. 1"=NA

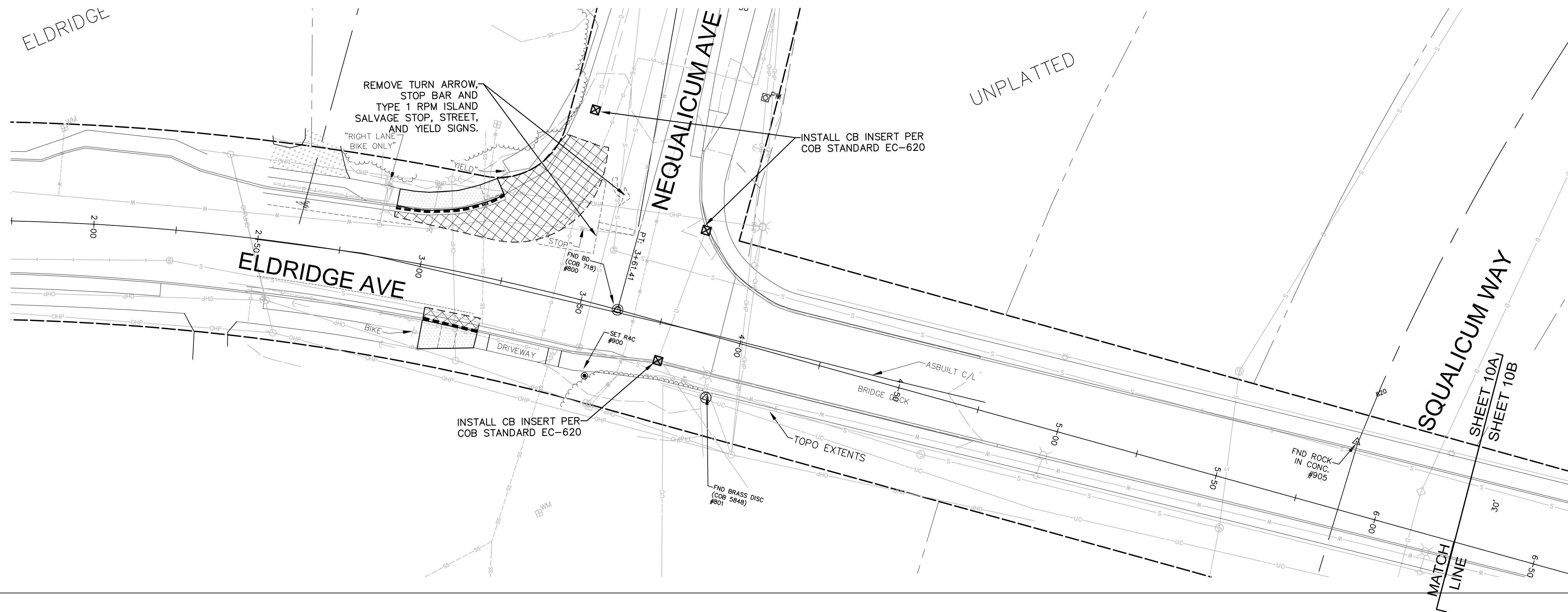
DATUM
NAD 83/98
NAVD 88

Job. No. ES-0563
Date 02/2023
Field Bk. FB

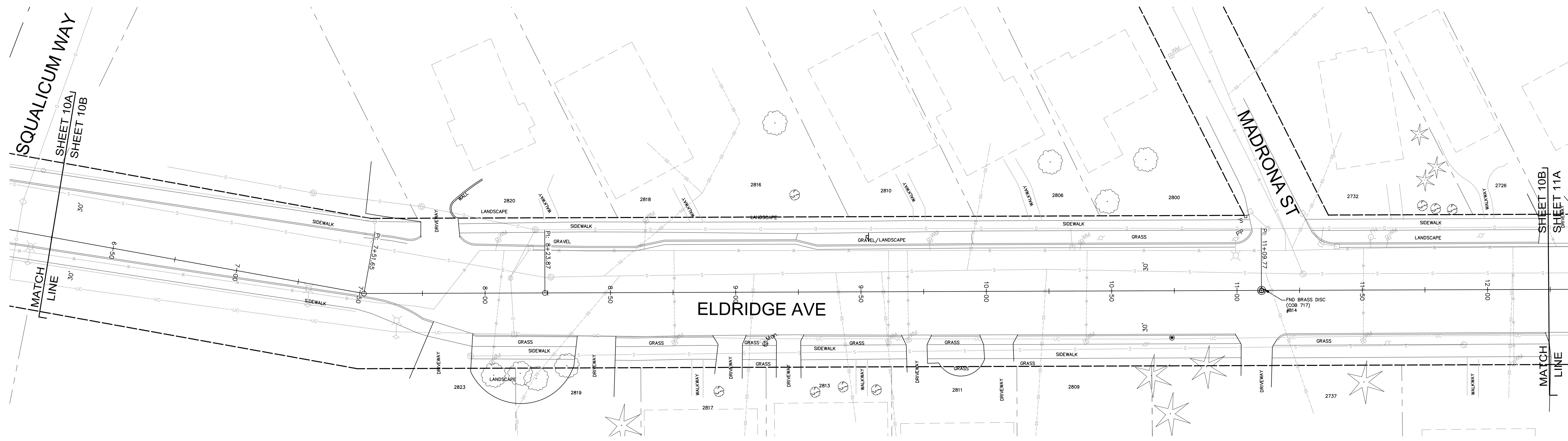
WESTSIDE NON MOTORIZED IMPROVEMENTS
STORMWATER POLLUTION PREVENTION PLAN NOTES

SHEET
9 OF
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CONTACT PERSON: , PROJECT ENGINEER AT 778-7900

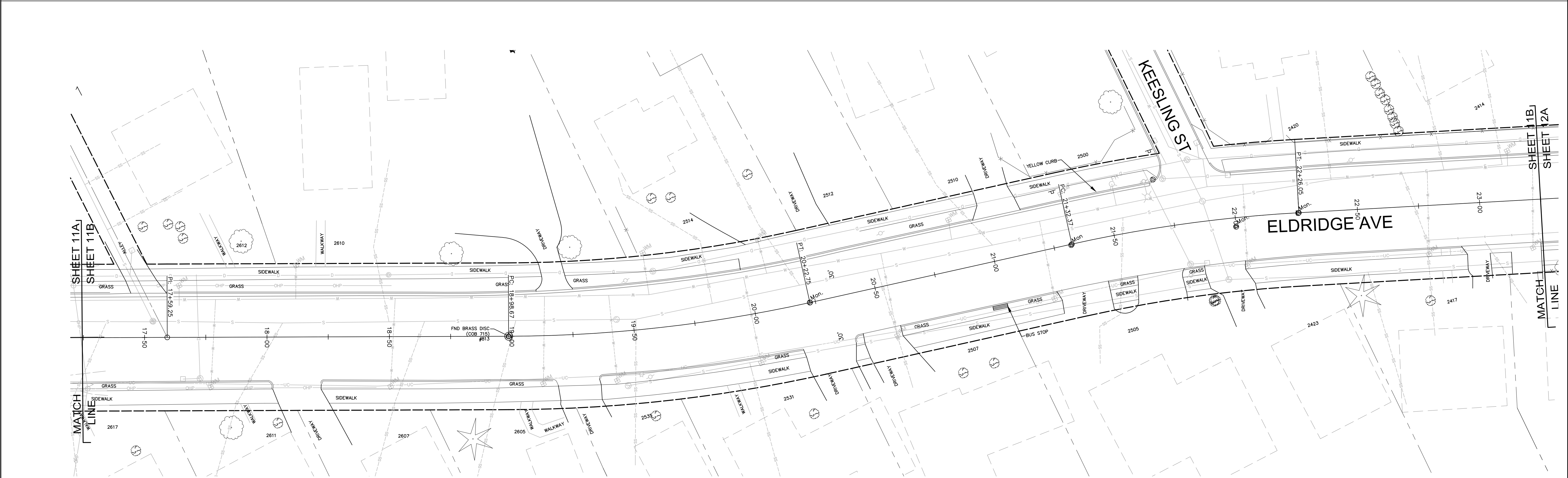
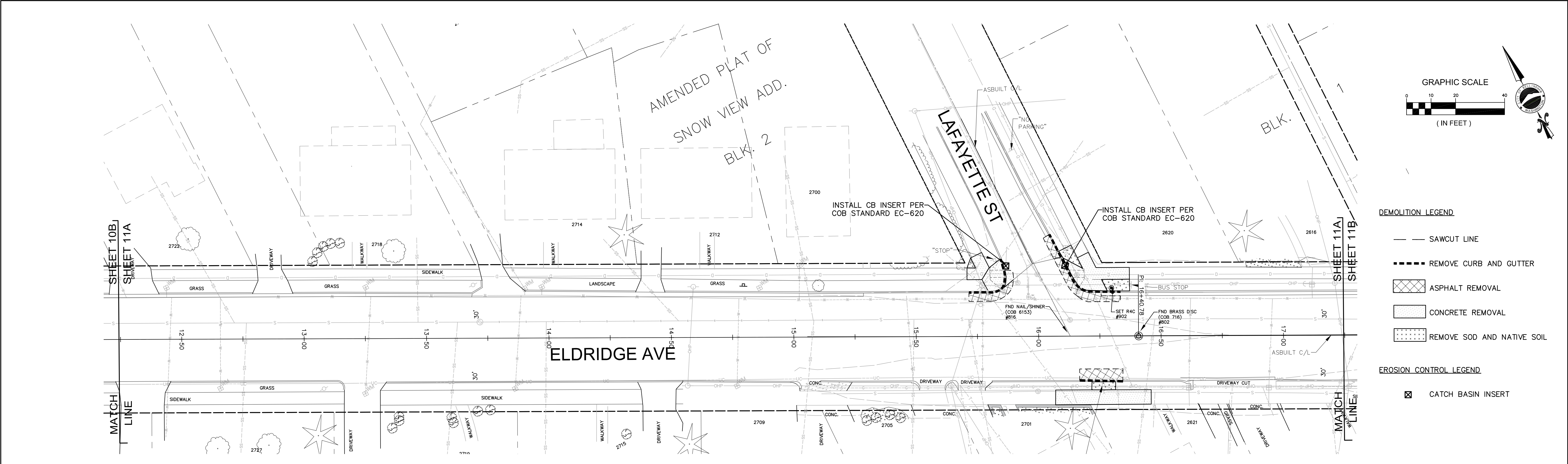


- DEMOLITION LEGEND
- SAWCUT LINE
 - REMOVE CURB AND GUTTER
 - ▨ ASPHALT REMOVAL
 - ▤ CONCRETE REMOVAL
 - ▧ REMOVE SOD AND NATIVE SOIL
- EROSION CONTROL LEGEND
- ☒ CATCH BASIN INSERT



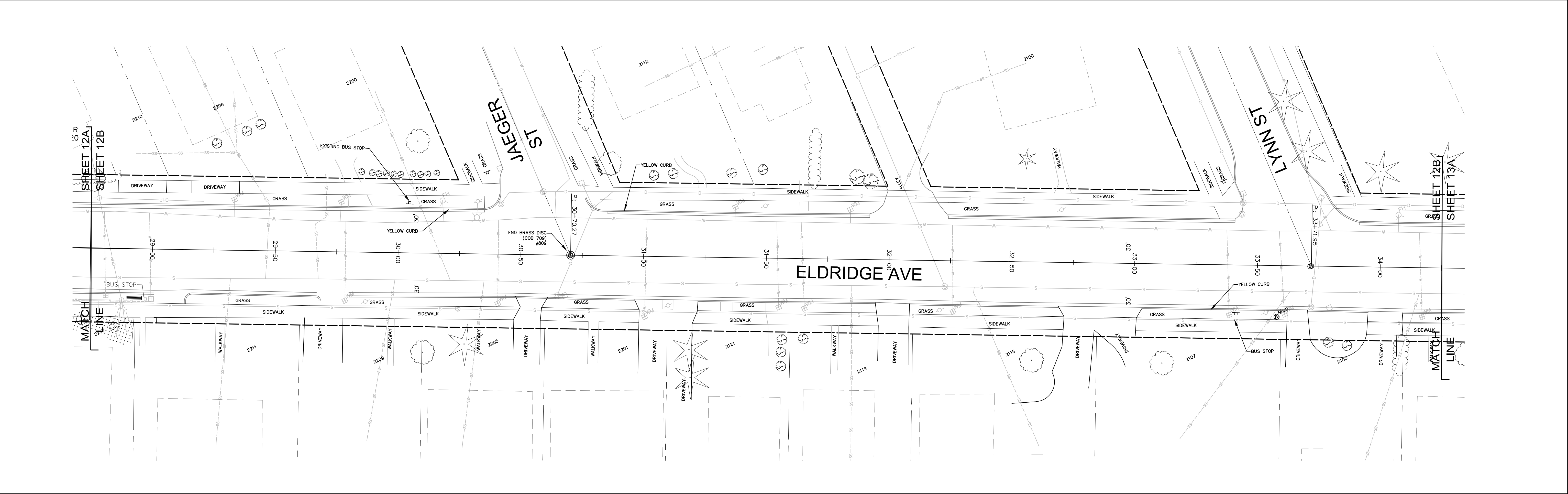
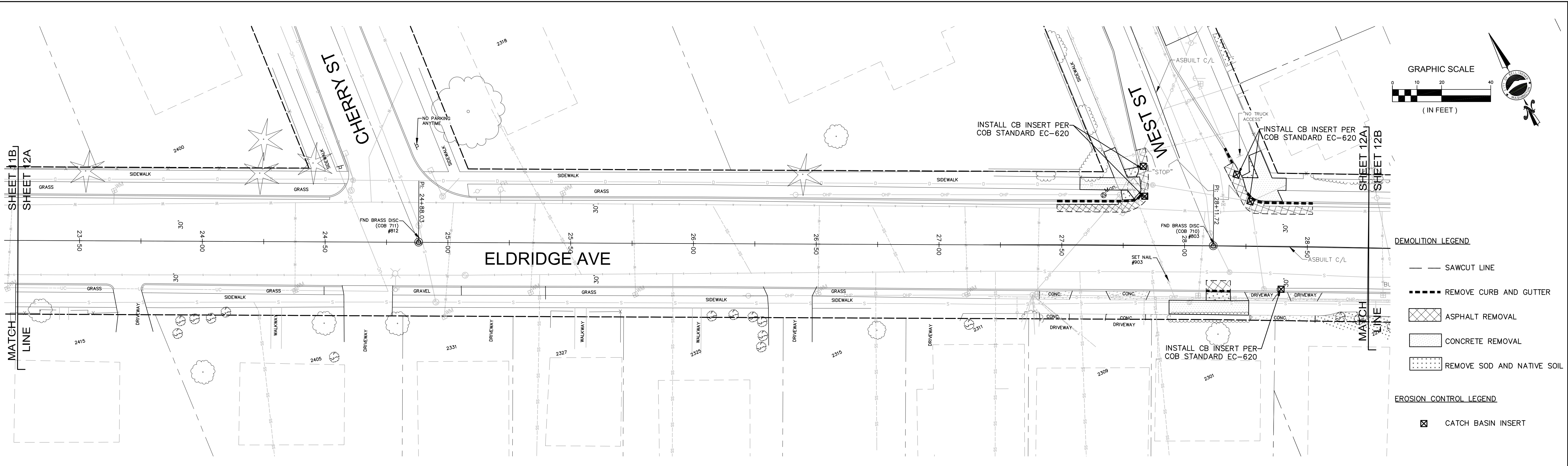
4			PROJECT ENGINEER	JJB	DIRECTOR OF PUBLIC WORKS	E.C.J.	CITY OF BELLINGHAM, WASHINGTON PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION	SCALE		DATUM		Job. No.	ES-0563	WESTSIDE NON MOTORIZED IMPROVEMENTS DEMO & TESC PLAN ELDRIDGE AVE. STA: 2+50 to 12+25	SHEET 10 OF xx
3	60% review		DESIGNED/DRAWN	ELH	CITY ENGINEER	C.M.A.S.		Horiz.	1"= 20'	NAD 83/98	Date	02/2023			
2			INSPECTOR	?	OPERATIONS ENGINEER	M.A.O.		Vert.	1"= NA	NAVD 88	Field Bk.	FB			
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Date	No	Revision	By												

CONTACT PERSON: , PROJECT ENGINEER AT 778-7900



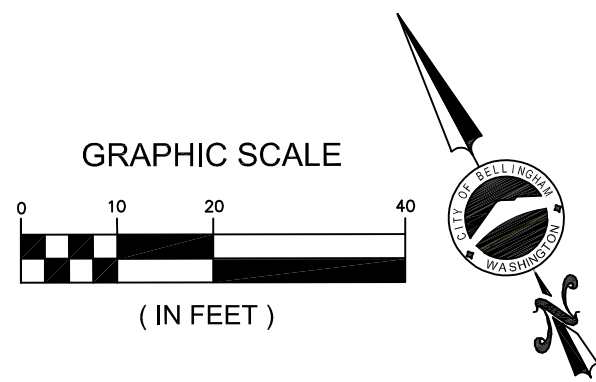
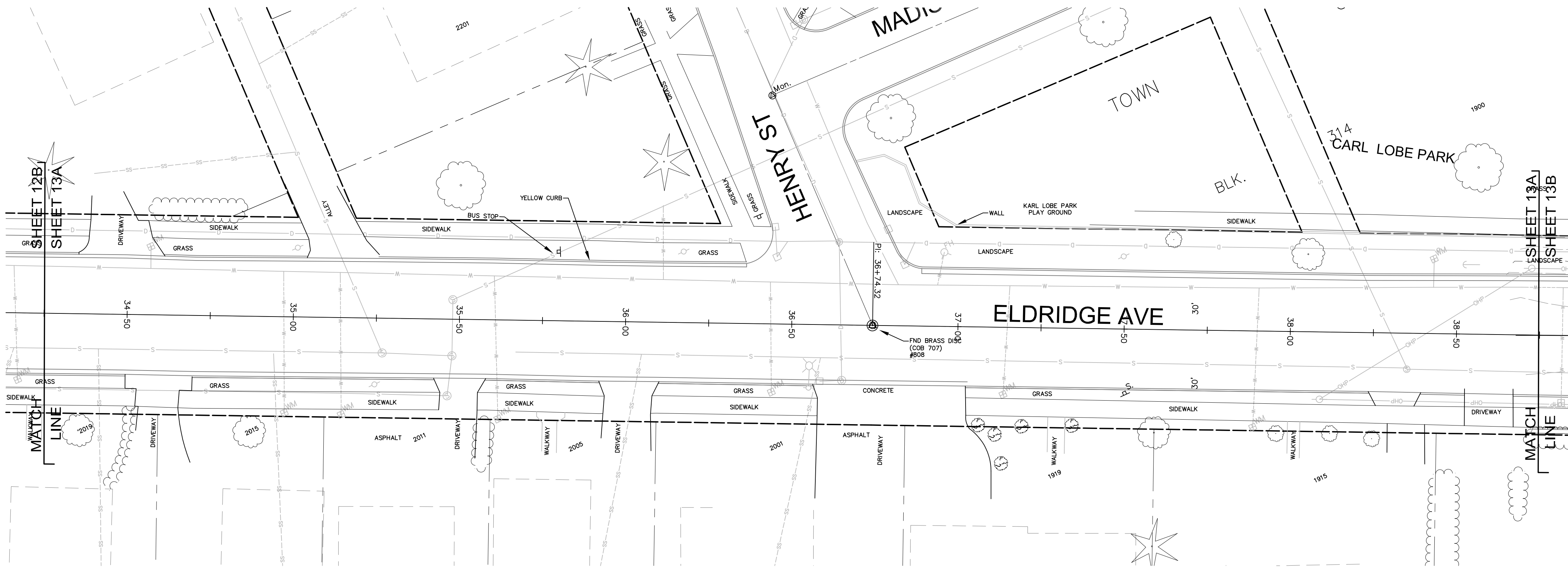
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2														
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Date	No	Revision	By											

CONTACT PERSON: , PROJECT ENGINEER AT 778-7900



4 3 2 1 Date No Revision By		60% review		PROJECT ENGINEER JJB DESIGNED/DRAWN ELH INSPECTOR ?		DIRECTOR OF PUBLIC WORKS E.C.J. CITY ENGINEER C.M.A.S. OPERATIONS ENGINEER M.A.O.		CITY OF BELLINGHAM, WASHINGTON PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION		SCALE Horiz. 1"= 20' Vert. 1"= NA		DATUM NAD 83/98 NAVD 88		Job. No. ES-0563 Date 02/2023 Field Bk. FB		WESTSIDE NON MOTORIZED IMPROVEMENTS DEMO & TESC PLAN ELDRIDGE AVE. STA: 23+25 to 34+25		SHEET 12 OF 12 xx	
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CONTACT PERSON: , PROJECT ENGINEER AT 778-7900

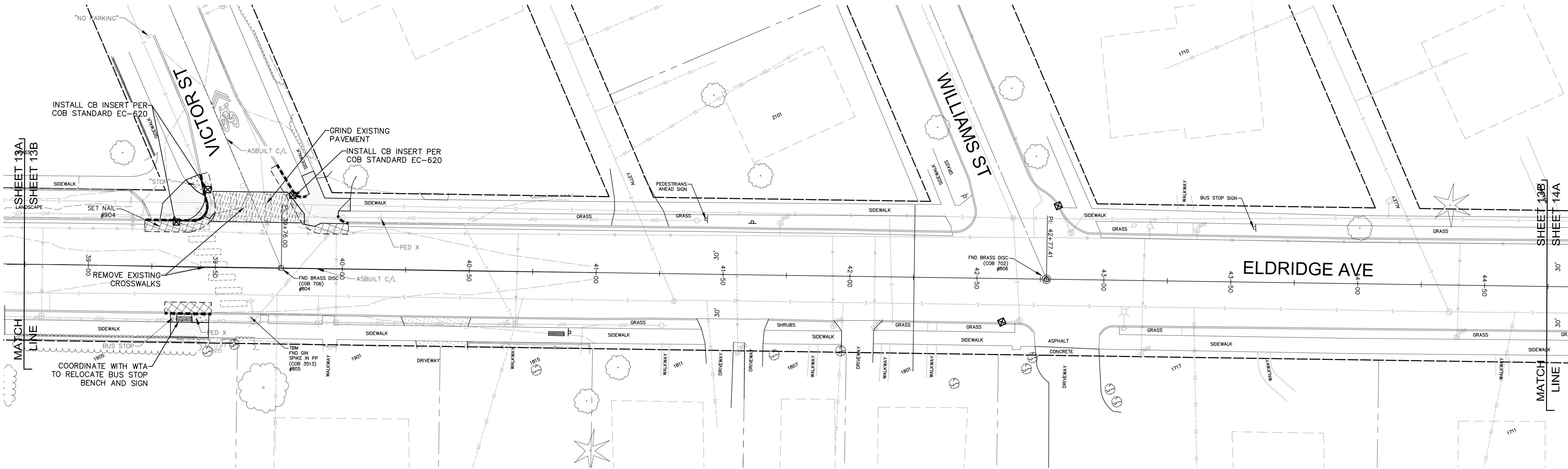


DEMOLITION LEGEND

- SAWCUT LINE
- REMOVE CURB AND GUTTER
- ASPHALT REMOVAL
- CONCRETE REMOVAL
- REMOVE SOD AND NATIVE SOIL

EROSION CONTROL LEGEND

- CATCH BASIN INSERT



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Date	No	Revision
		By

PROJECT ENGINEER	JJB
DESIGNED/DRAWN	ELH
INSPECTOR	?

DIRECTOR OF PUBLIC WORKS	E.C.J.
CITY ENGINEER	C.M.A.S.
OPERATIONS ENGINEER	M.A.O.

CITY OF BELLINGHAM, WASHINGTON
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

SCALE
Horiz. 1"= 20'
Vert. 1"= NA

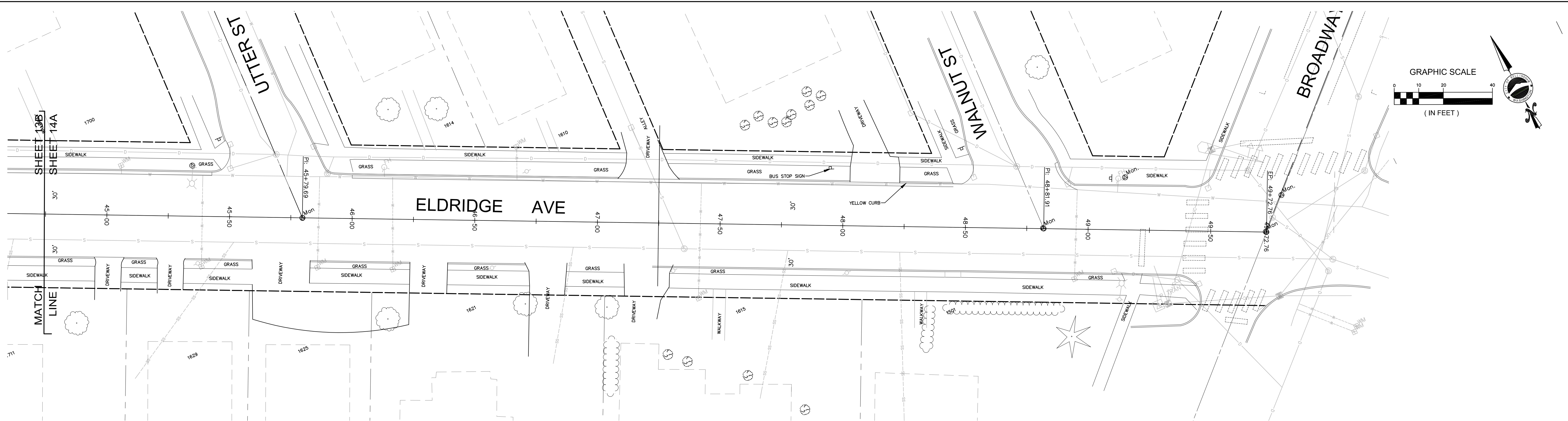
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NAD 83/98
NAVD 88

Job. No.	ES-0563
Date	02/2023
Field Bk.	FB

WESTSIDE NON MOTORIZED IMPROVEMENTS
DEMO & TESC PLAN ELDRIDGE AVE. STA: 34+25 to 44+75

SHEET	OF
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CONTACT PERSON: , PROJECT ENGINEER AT 778-7900



- DEMOLITION LEGEND
- SAWCUT LINE
 - REMOVE CURB AND GUTTER
 - ASPHALT REMOVAL
 - CONCRETE REMOVAL
 - REMOVE SOD AND NATIVE SOIL
- EROSION CONTROL LEGEND
- CATCH BASIN INSERT

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Date	No	Revision	By	

PROJECT ENGINEER	JJB
DESIGNED/DRAWN	ELH
INSPECTOR	?

DIRECTOR OF PUBLIC WORKS	E.C.J.
CITY ENGINEER	C.M.A.S.
OPERATIONS ENGINEER	M.A.O.

CITY OF BELLINGHAM, WASHINGTON
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

SCALE
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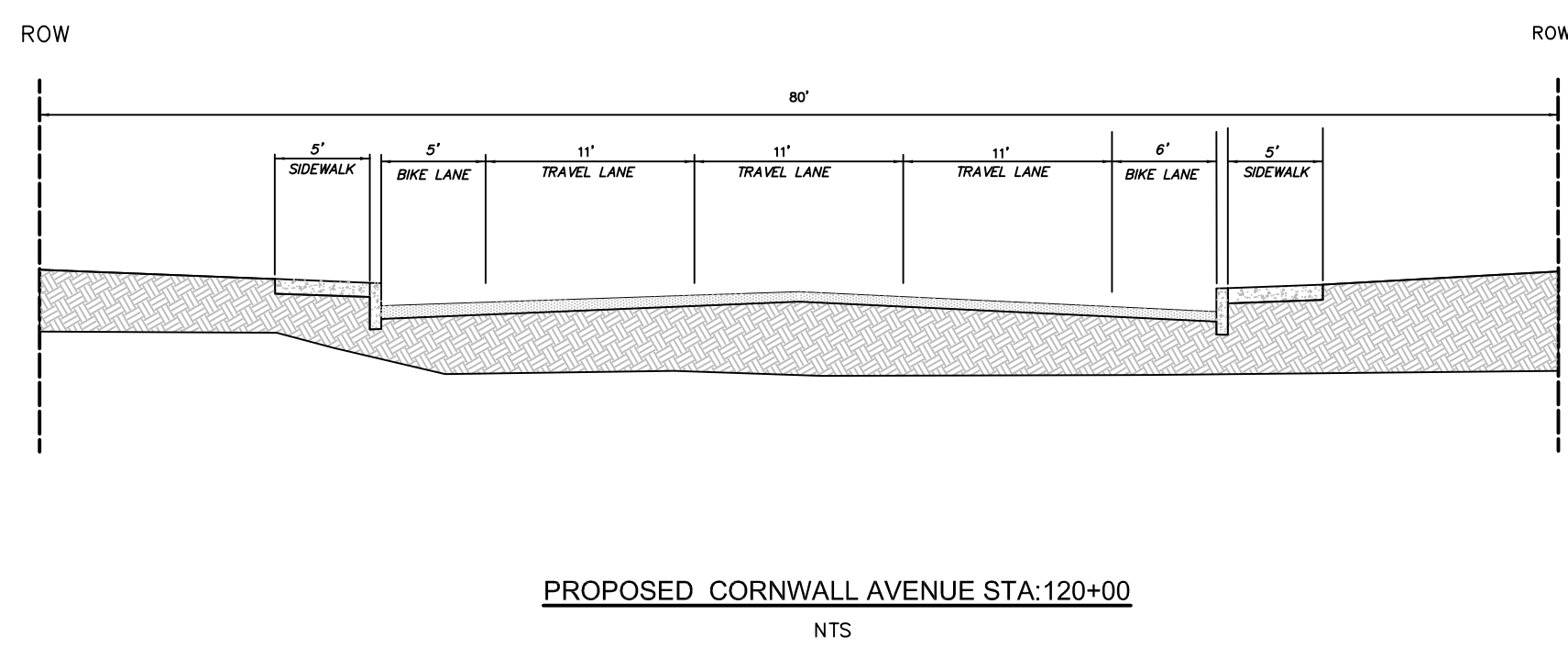
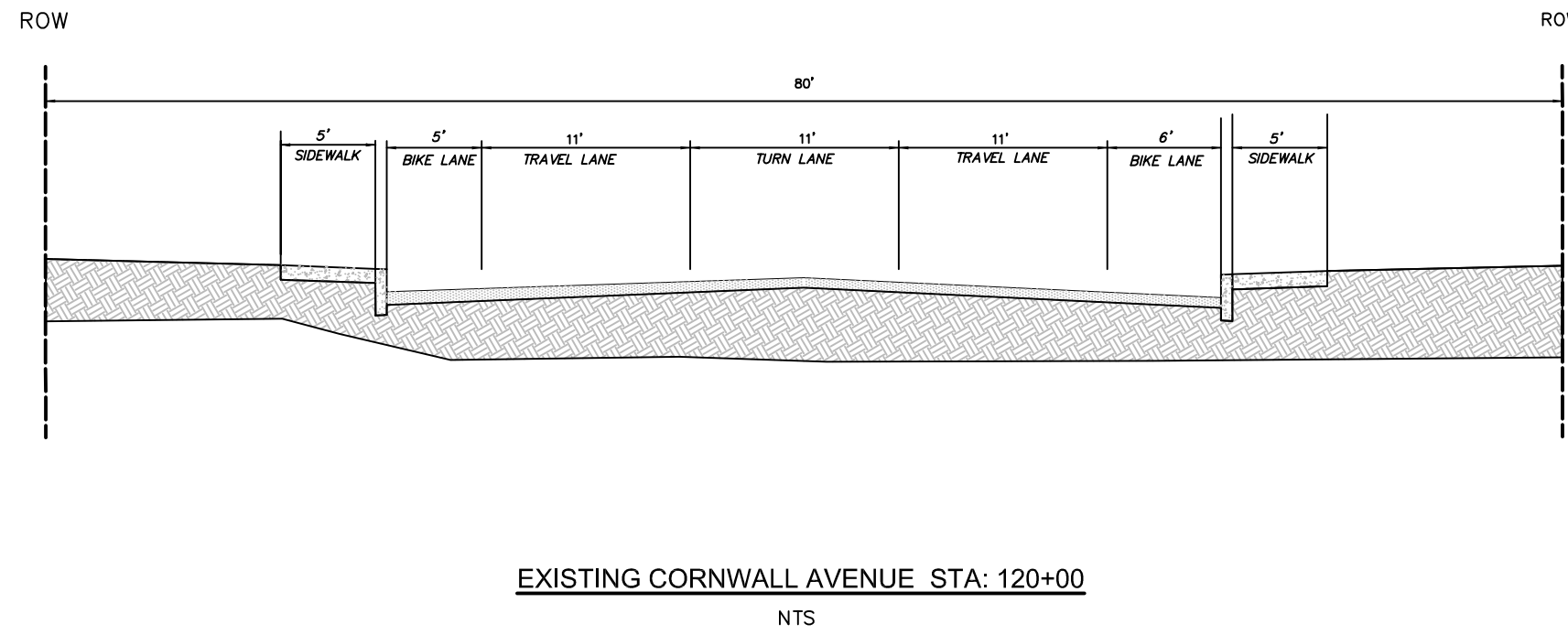
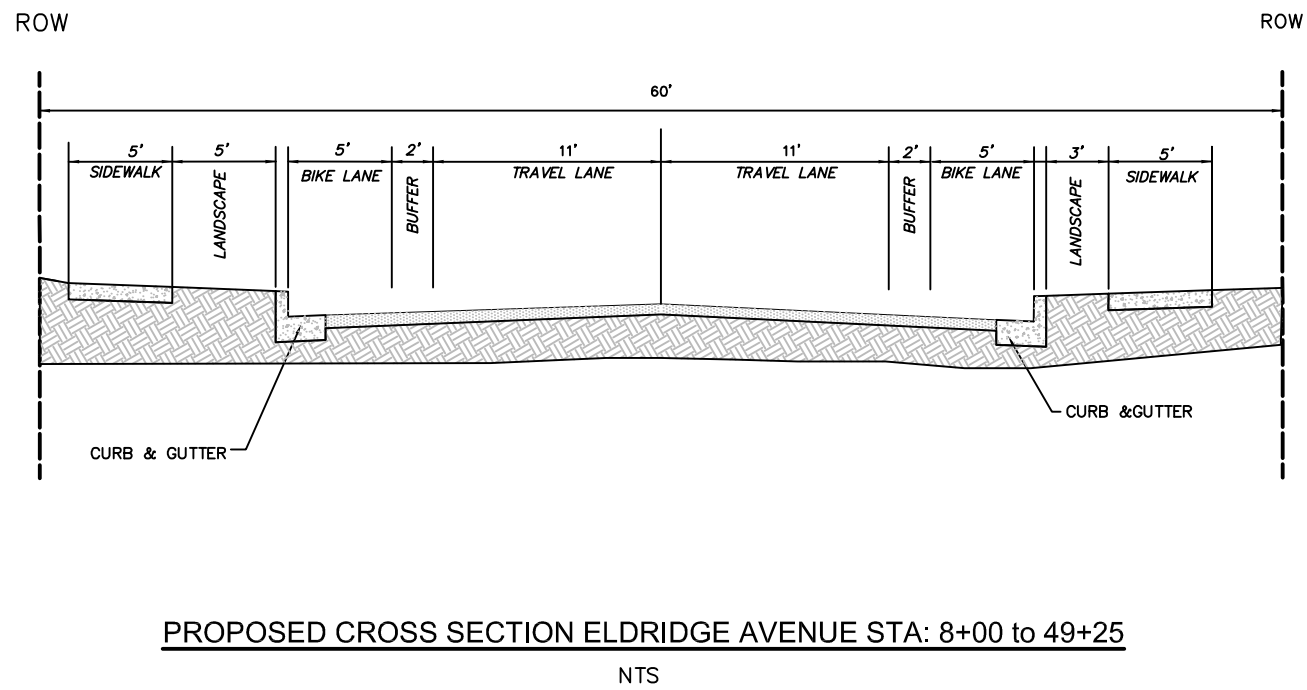
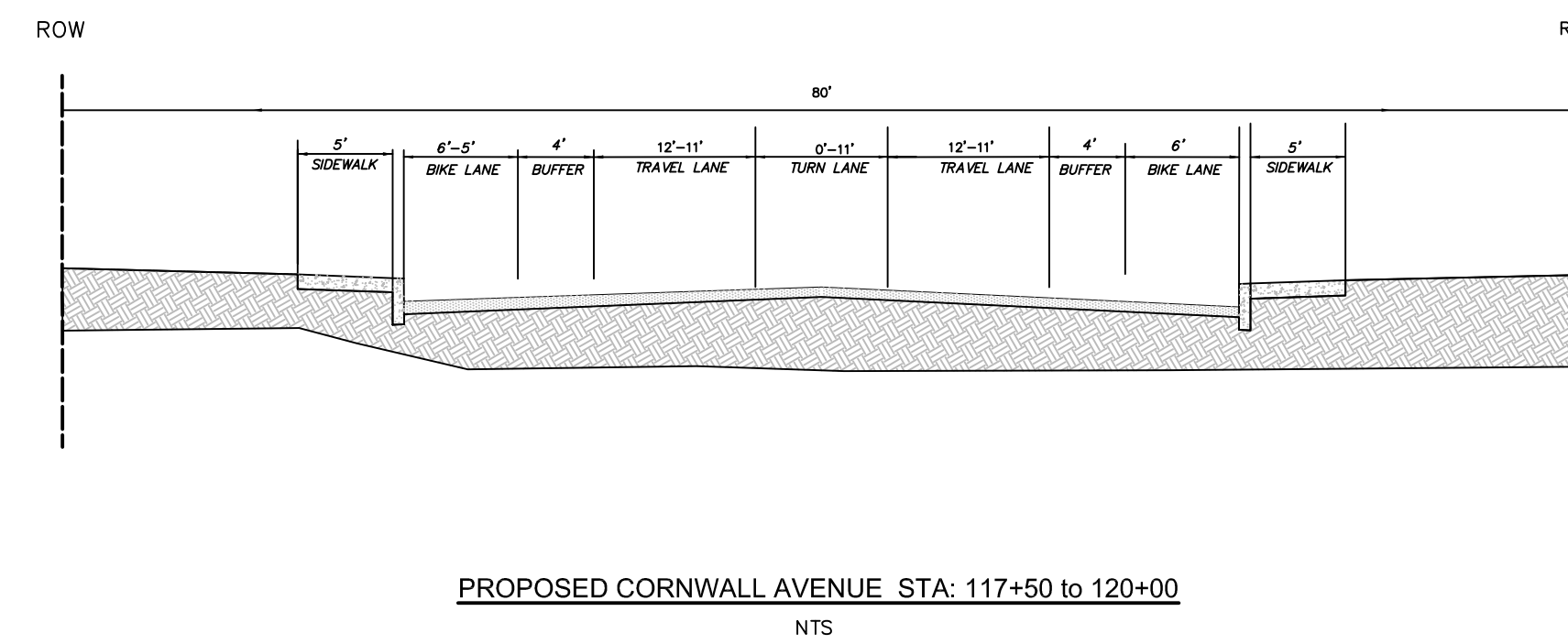
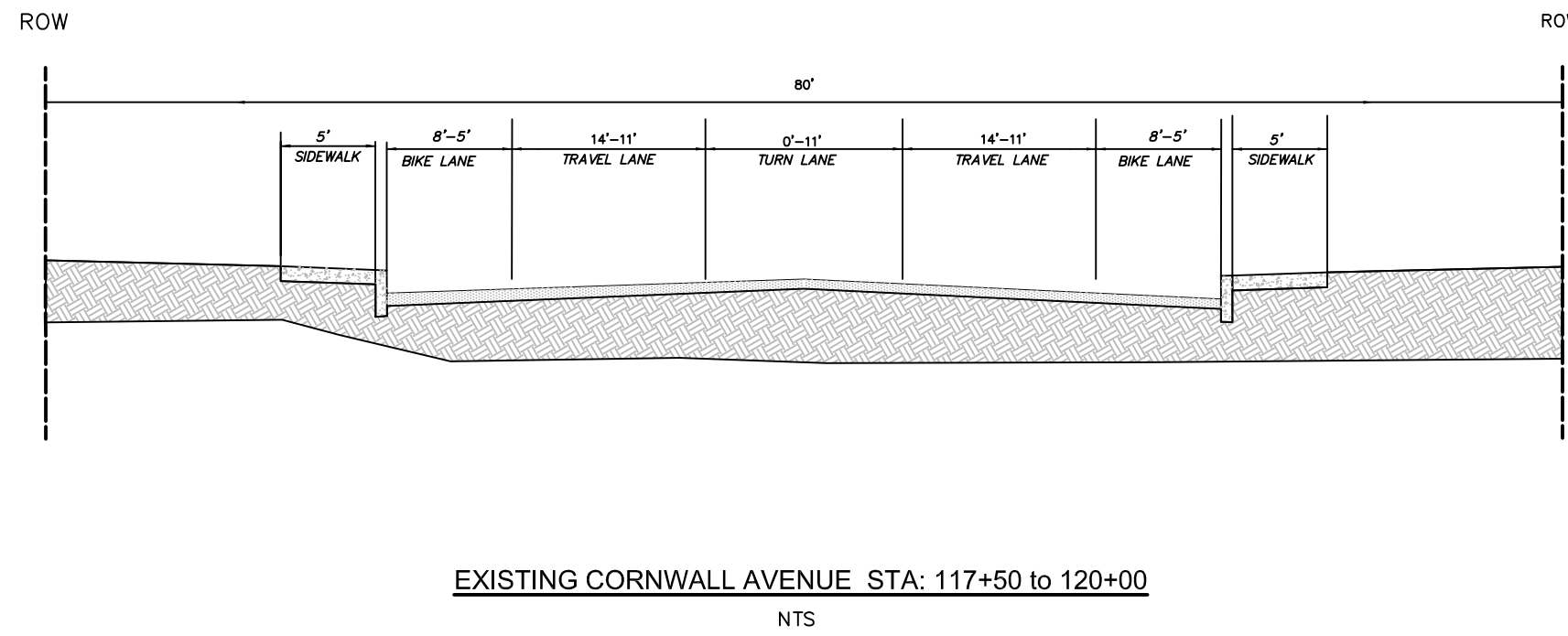
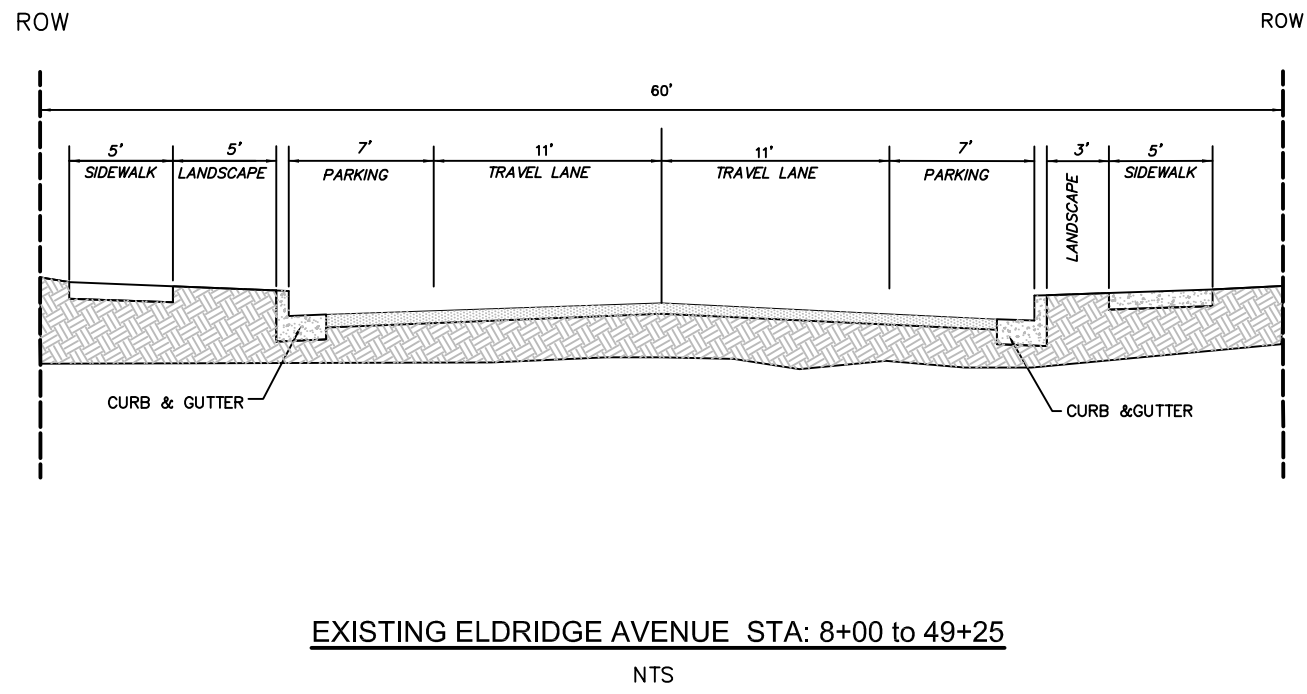
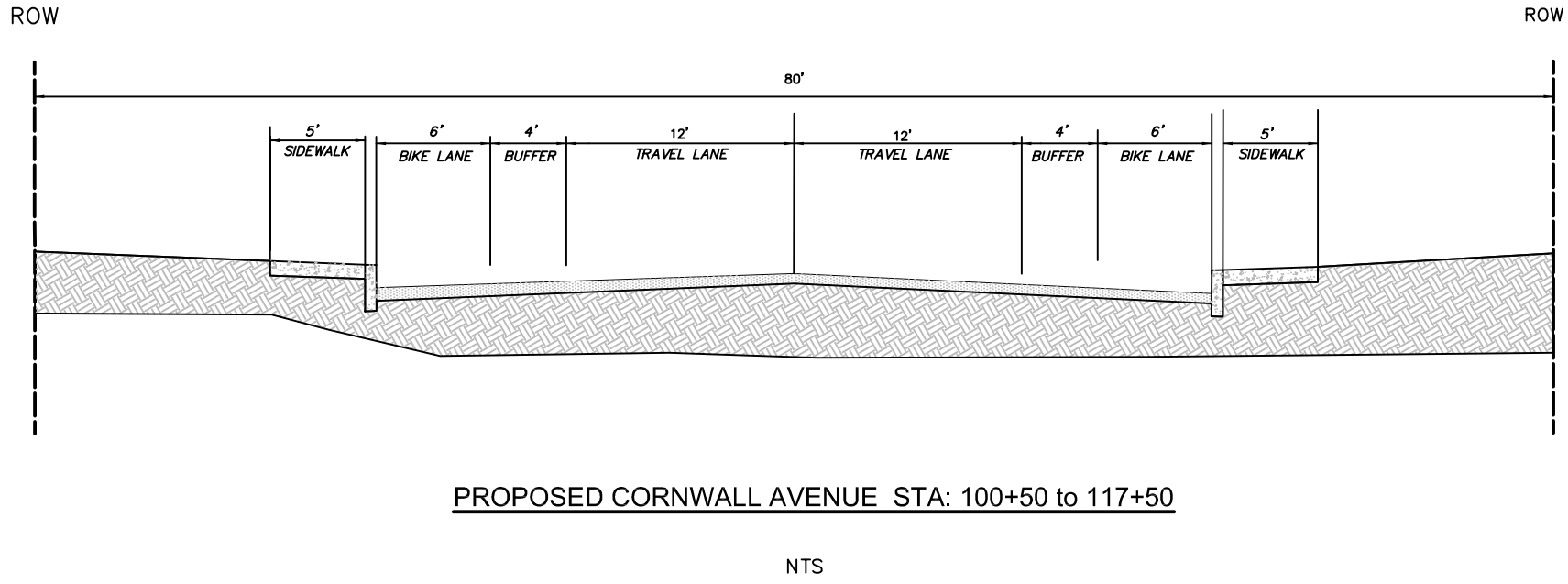
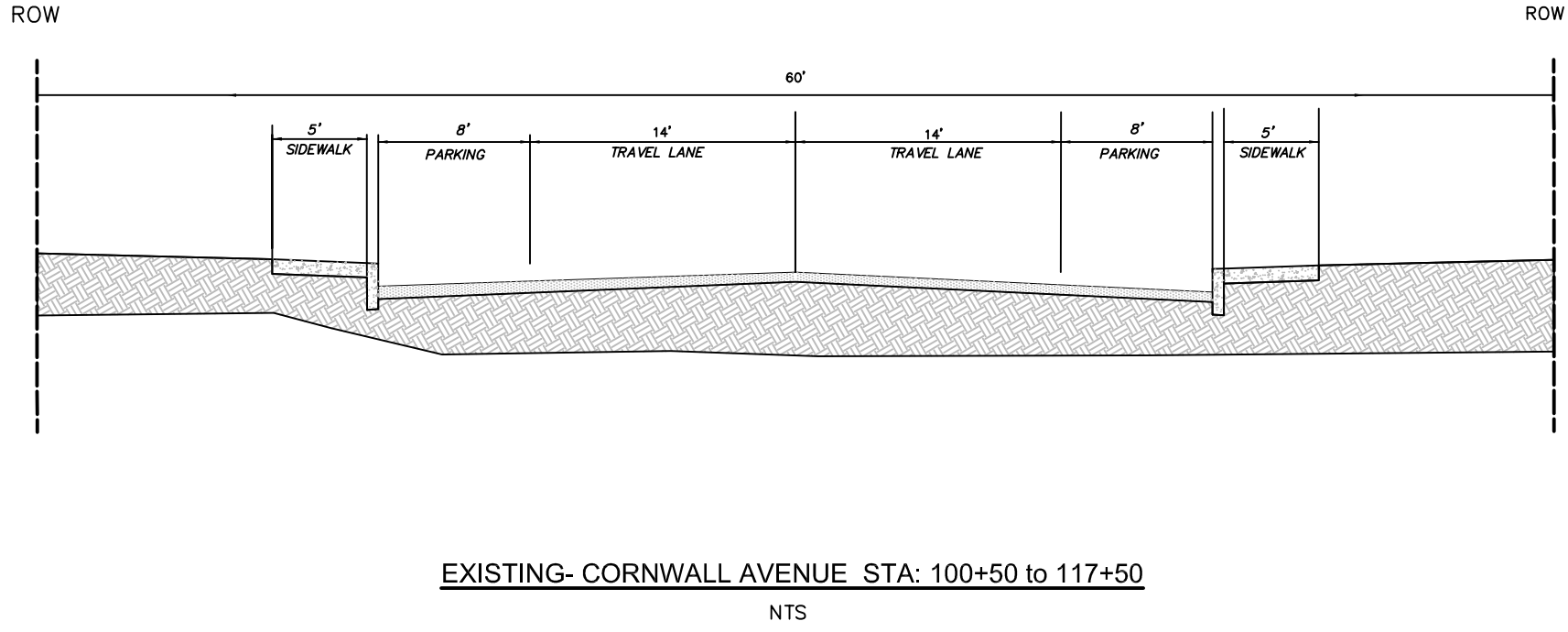
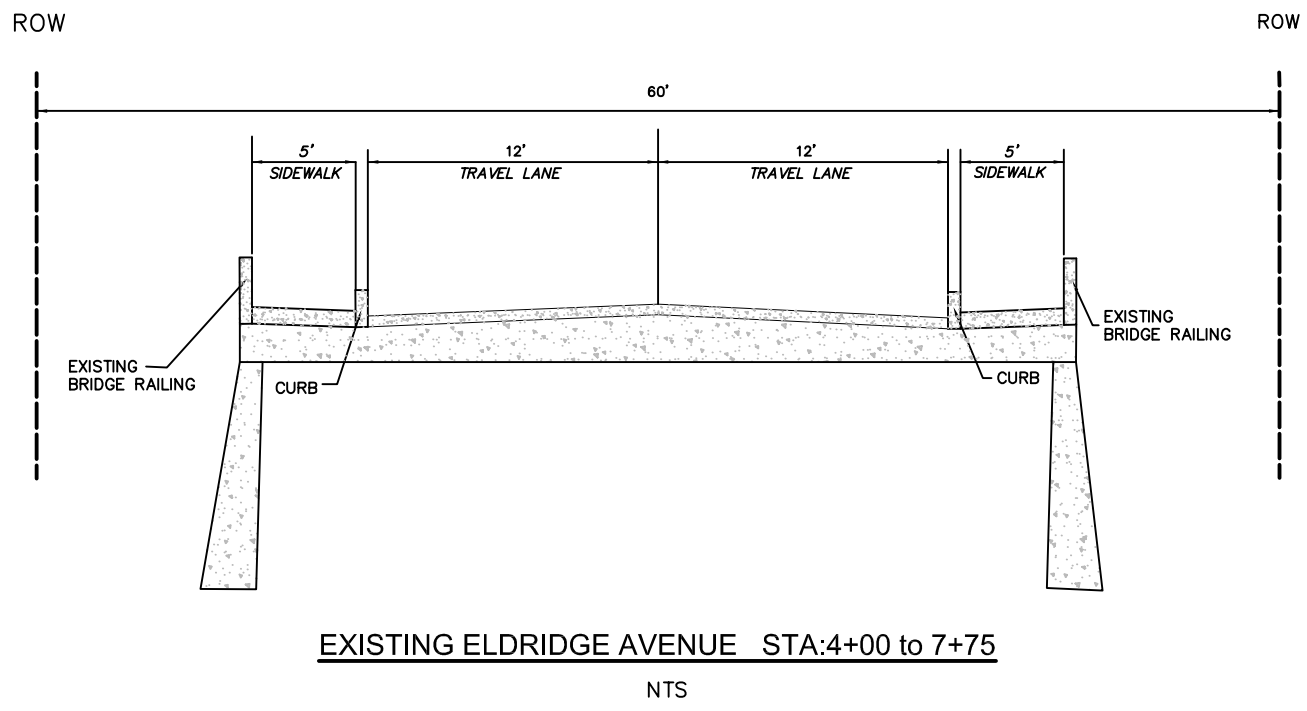
DATUM
NAD 83/98
NAVD 88

Job. No.	ES-0563
Date	02/2023
Field Bk.	_FB

WESTSIDE NON MOTORIZED IMPROVEMENTS
DEMO & TESC PLAN ELDRIDGE AVE. STA: 44+75 to 50+00

SHEET	OF
14	xx

CONTACT PERSON: _____, PROJECT ENGINEER AT 778-7900



	4		
	3		
	2	60% review	
	1		
Date	No	Revision	By

PROJECT ENGINEER	JJB
DESIGNED/DRAWN	ELH
INSPECTOR	?

DIRECTOR OF PUBLIC WORKS	E.C.J.
CITY ENGINEER	C.M.A.S.
OPERATIONS ENGINEER	M.A.O.

CITY OF BELLINGHAM, WASHINGTON
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

SCALE
Horiz. 1"= 20'
Vert. 1"= NA

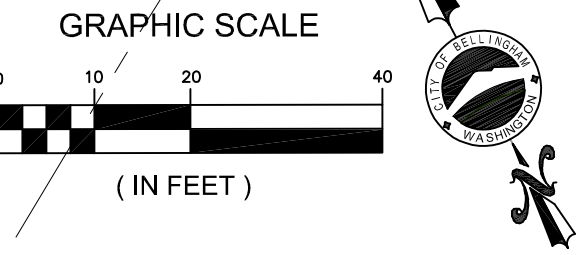
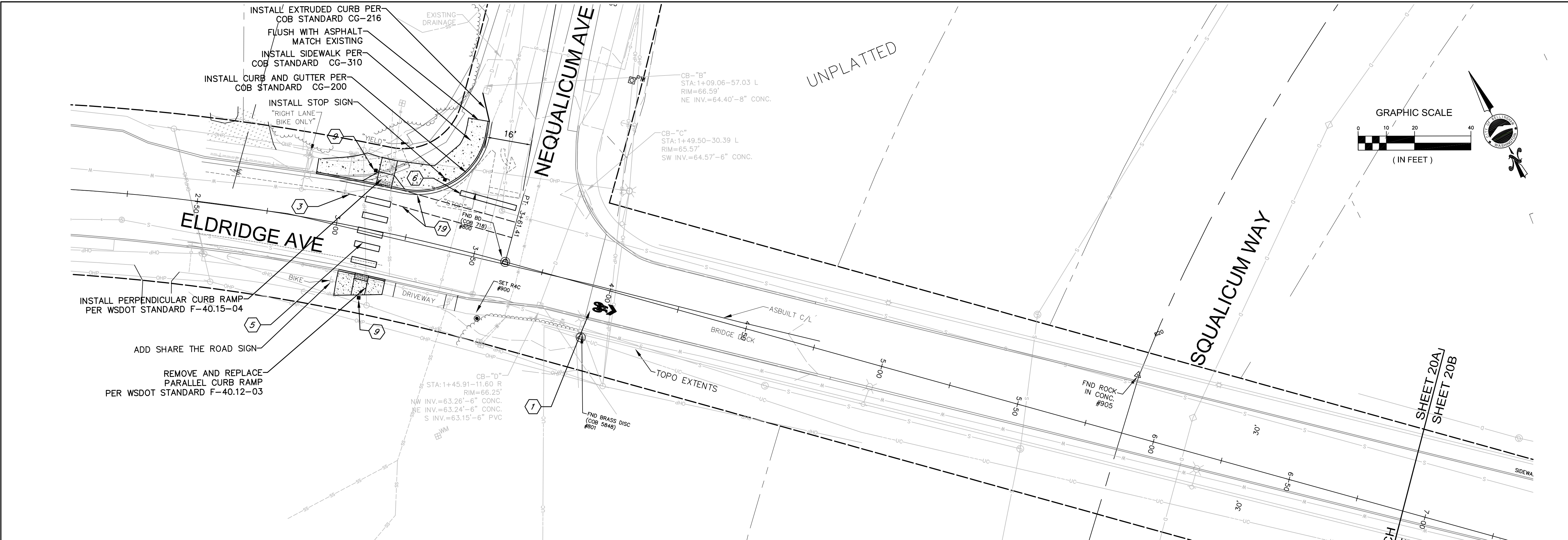
DATUM
NAD 83/98
NAVD 88

Job. No.	ES-0563
Date	02/2023
Field Bk.	FB

WESTSIDE NON MOTORIZED IMPROVEMENTS
TYPICAL SECTIONS EXISTING AND PROPOSED

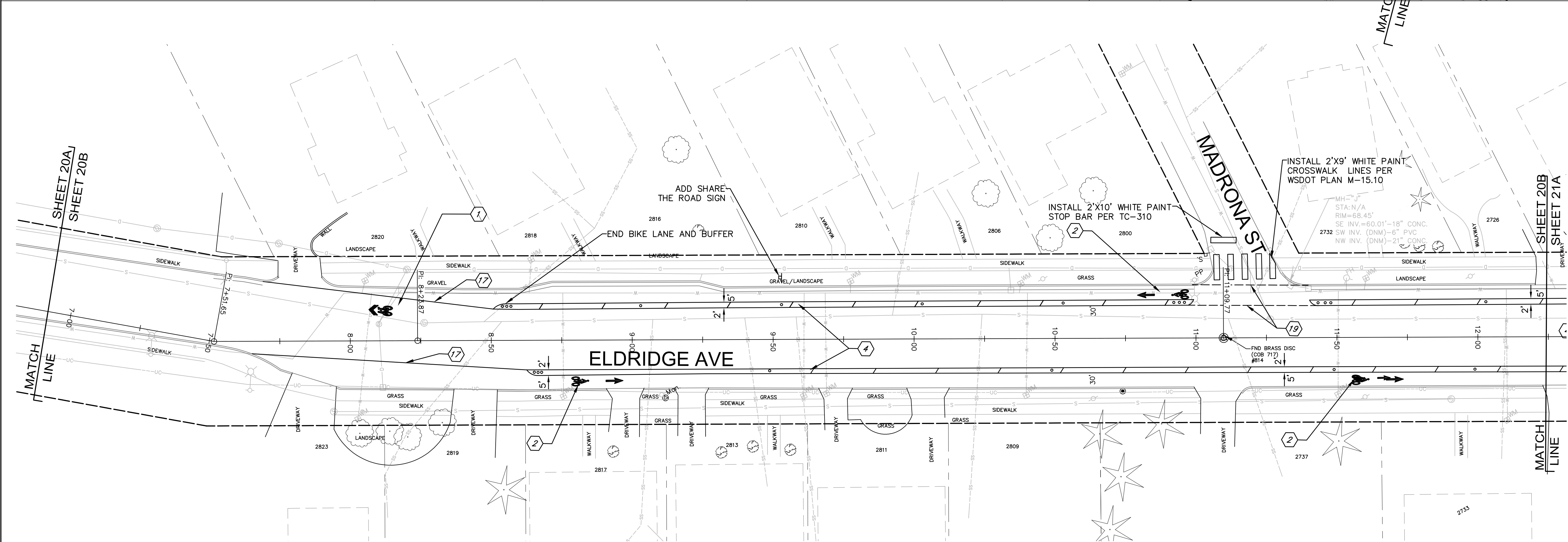
SHEET	OF
19	xx

CONTACT PERSON: , PROJECT ENGINEER AT 778-7900



CONSTRUCTION NOTES:

- 1 INSTALL PLASTIC SHARED LANE SYMBOL AS DIRECTED BY THE ENGINEER
- 2 INSTALL DESIGNATED BIKE LANE AND PER CITY STANDARD PLAN TC-315
- 3 BIKE LANE STRIPING PER CITY STANDARD TC-315
- 4 INSTALL BIKE LANE BUFFER WITH HATCHING AND DELINEATORS. SEE DETAIL SHEET 33
- 5 INSTALL 2'X9' WHITE PLASTIC CROSS-WALK LINES PER WSDOT STANDARD PLAN M-15.10
- 6 24" WHITE PLASTIC STOP LINE (BAR) PER CITY STANDARD PLAN TC-310.
- 7 BUFFER TRANSITION PER DETAIL SHEET 33
- 8 INSTALL RECTANGULAR RAPID FLASHING BEACON(RRFB) PER DETAIL SHEET 34 WITH S1-1 SIGNS.
- 9 INSTALL RECTANGULAR RAPID FLASHING BEACON(RRFB) PER DETAIL SHEET 34 WITH W11-2 SIGNS
- 10 INSTALL RECTANGULAR RAPID FLASHING BEACON(RRFB) PER DETAIL SHEET 34 WITH W11-15 SIGNS
- 11 INSTALL R1-6a SIGN DOUBLE SIDED WITH POST.
- 12 INSTALL PUSHBUTTON POST, AND R10-25 SIGN FOR BICYCLES.
- 13 INSTALL SHORT FLEXIBLE YELLOW DE
- 14 INSTALL DOUBLE YELLOW CENTER STRIP PER COB STANDARD TC-305
- 15 INSTALL DETECTABLE WARNING SURFACE PER WSDOT STANDARD F-45.10-03
- 16 XXX
- 17 INSTALL 8" PLASTIC LANE LINE.
- 18 NOT USED THIS SHEET
- 19 DOTTED EXTENSION LINE PER WSDOT STANDARD M-20.10



	4	60% review	
	3		
	2		
	1		
Date	No	Revision	By

PROJECT ENGINEER	JJB
DESIGNED/DRAWN	ELH
INSPECTOR	?

DIRECTOR OF PUBLIC WORKS	E.C.J.
CITY ENGINEER	C.M.A.S.
OPERATIONS ENGINEER	M.A.O.

CITY OF BELLINGHAM, WASHINGTON
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

SCALE
Horiz. 1"= 20'
Vert. 1"= NA

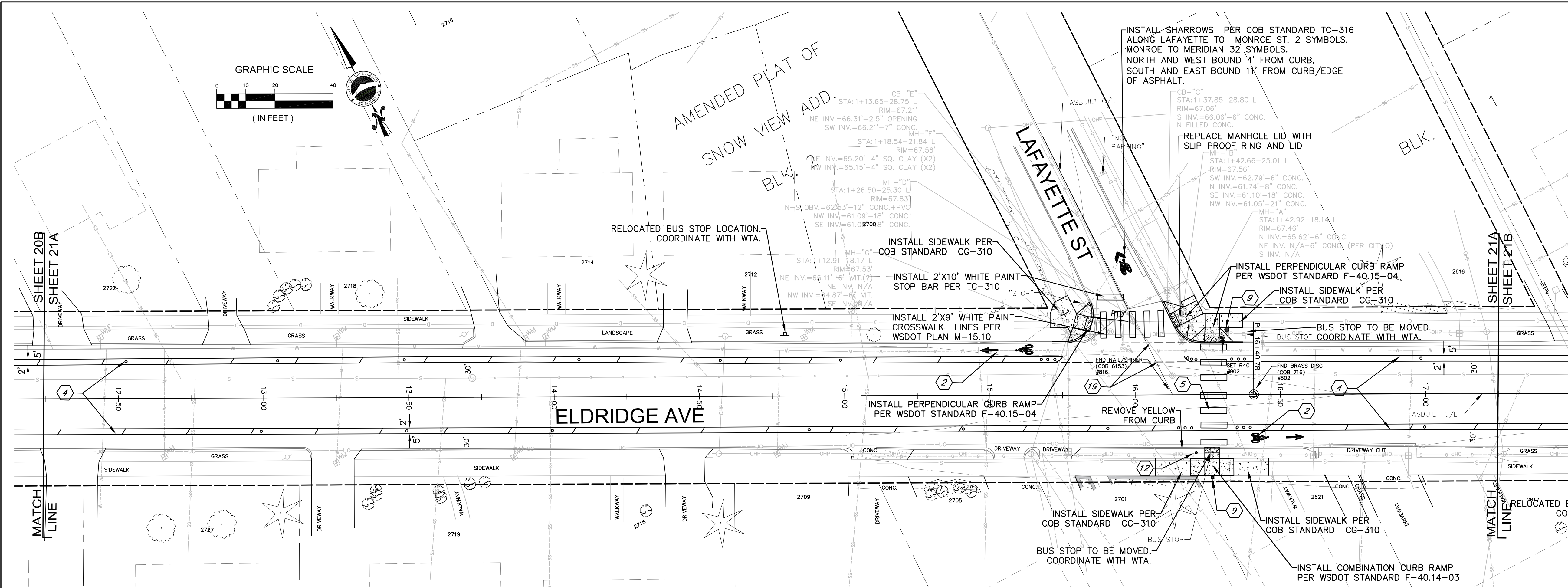
DATUM
NAD 83/98
NAVD 88

Job. No.	ES-0563
Date	02/2023
Field Bk.	FB

WESTSIDE NON MOTORIZED IMPROVEMENTS
ELDRIDGE AVE. STA: 2+50 to 12+25

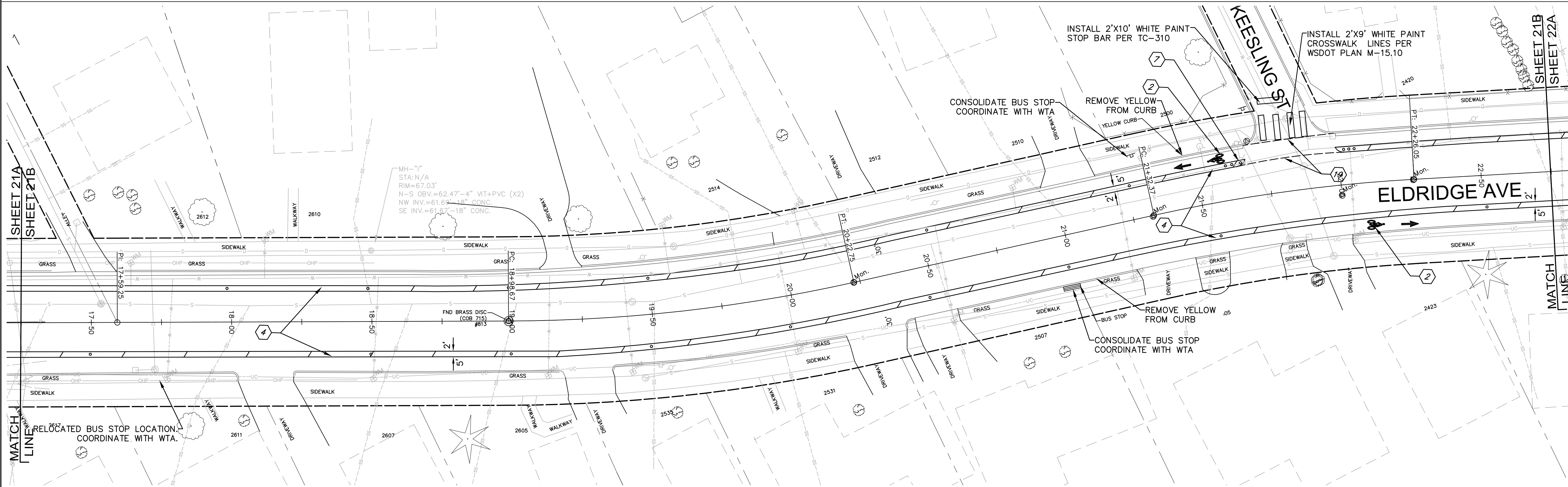
SHEET	OF
20	xx

CONTACT PERSON: , PROJECT ENGINEER AT 778-7900



CONSTRUCTION NOTES:

- 1 INSTALL PLASTIC SHARED LANE SYM AS DIRECTED BY THE ENGINEER
- 2 INSTALL DESIGNATED BIKE LANE AND PER CITY STANDARD PLAN TC-315
- 3 BIKE LANE STRIPING PER CITY STANDARD TC-315
- 4 INSTALL BIKE LANE BUFFER WITH HATCHING AND DELINEATORS. SEE DETAIL SHEET 33
- 5 INSTALL 2'X9' WHITE PLASTIC CROSS-WALK LINES PER WSDOT STANDARD PLAN M-15.10
- 6 24" WHITE PLASTIC STOP LINE (BAR PER CITY STANDARD PLAN TC-310.
- 7 BUFFER TRANSITION PER DETAIL SHEET 33
- 8 INSTALL RECTANGULAR RAPID FLASHING BEACON(RRFB) PER DETAIL SHEET 34 WITH S1-1 SIGNS.
- 9 INSTALL RECTANGULAR RAPID FLASHING BEACON(RRFB) PER DETAIL SHEET 34 WITH W11-2 SIGNS
- 10 INSTALL RECTANGULAR RAPID FLASHING BEACON(RRFB) PER DETAIL SHEET 34 WITH W11-15 SIGN
- 11 INSTALL R1-6a SIGN DOUBLE SIDED WITH POST.
- 12 INSTALL PUSHBUTTON POST, AND R10-25 SIGN FOR BICYCLES.
- 13 INSTALL SHORT FLEXIBLE YELLOW DE
- 14 INSTALL DOUBLE YELLOW CENTER ST PER COB STANDARD TC-305
- 15 INSTALL DETECTABLE WARNING SURF PER WSDOT STANDARD F-45.10-03
- 16 XXX
- 17 INSTALL 8" PLASTIC LANE LINE.
- 18 NOT USED THIS SHEET
- 19 DOTTED EXTENSION LINE PER WSDOT STANDARD M-20.10



4	
3	
2	60% review
1	
Date	No
	Revision
	By

PROJECT ENGINEER	JJB
DESIGNED/DRAWN	ELH
INSPECTOR	?

DIRECTOR OF PUBLIC WORKS	E.C.J.
CITY ENGINEER	C.M.A.S.
OPERATIONS ENGINEER	M.A.O.

CITY OF BELLINGHAM, WASHINGTON
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

SCALE
Horiz. 1"= 20'
Vert. 1"= NA

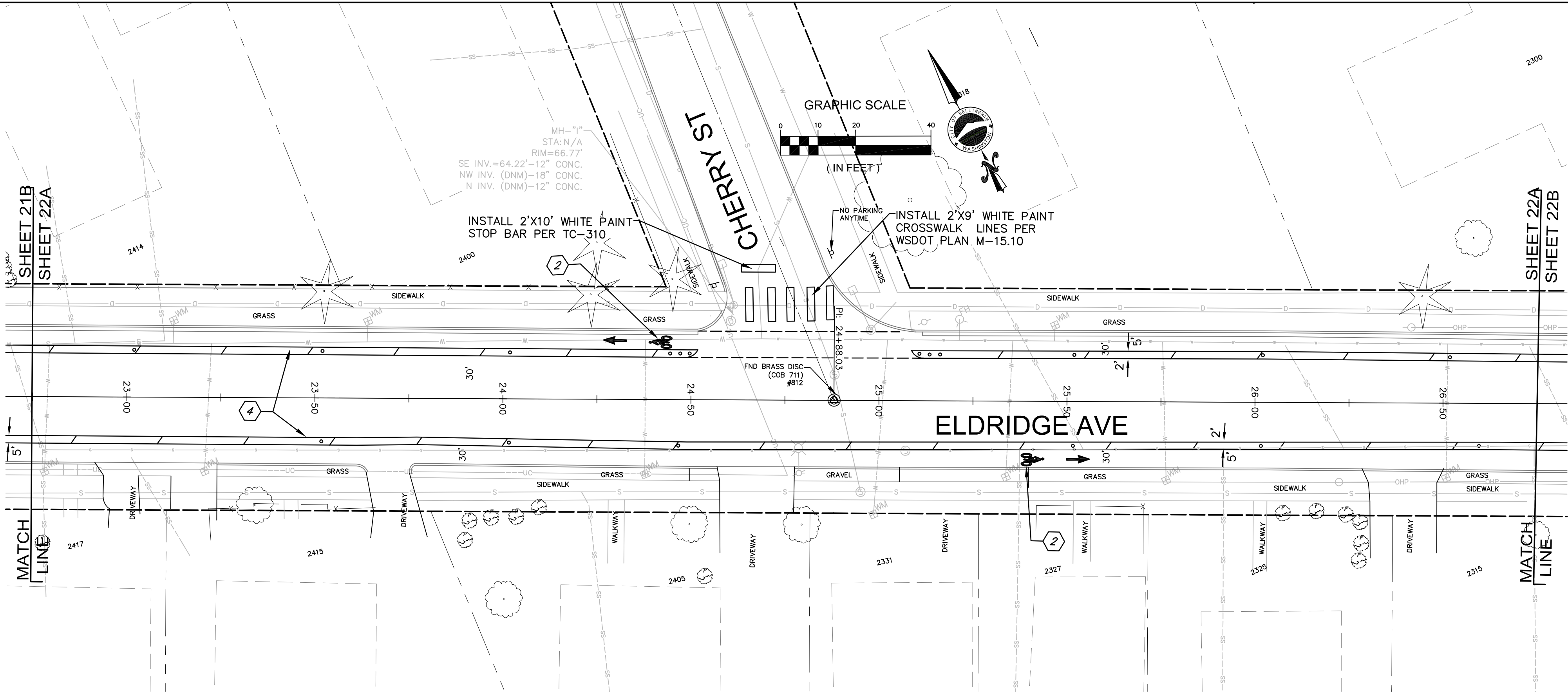
DATUM
NAD 83/98
NAVD 88

Job. No.	ES-0563
Date	02/2023
Field Bk.	_FB

WESTSIDE NON MOTORIZED IMPROVEMENTS
ELDRIDGE AVE. STA: 12+25 to 22+75

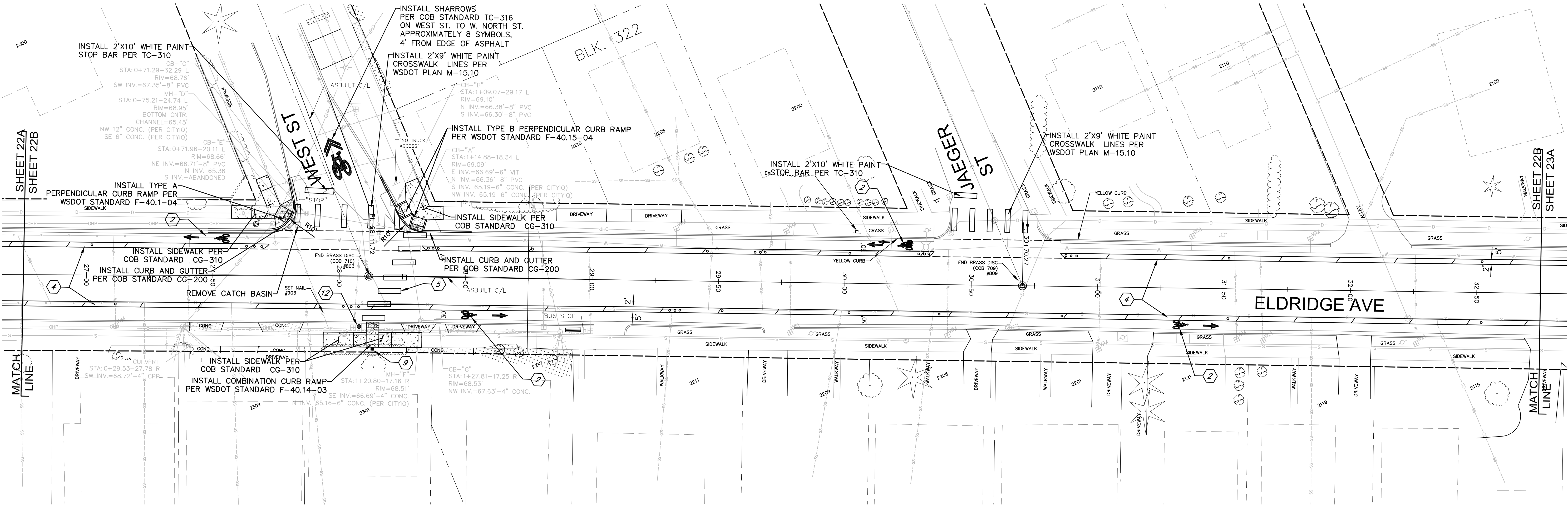
SHEET	OF
21	xx

CONTACT PERSON: , PROJECT ENGINEER AT 778-7900



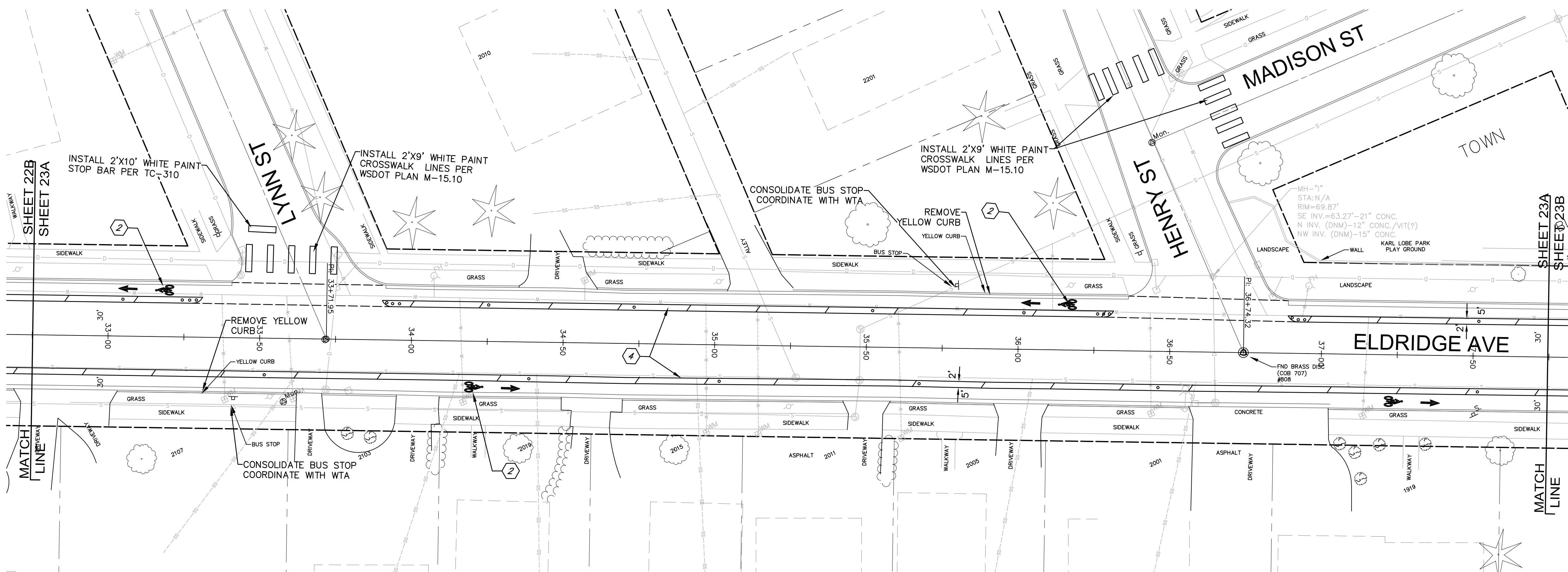
CONSTRUCTION NOTES:

- 1 INSTALL PLASTIC SHARED LANE SYMB AS DIRECTED BY THE ENGINEER
- 2 INSTALL DESIGNATED BIKE LANE AND PER CITY STANDARD PLAN TC-315
- 3 BIKE LANE STRIPING PER CITY STANDARD TC-315
- 4 INSTALL BIKE LANE BUFFER WITH HATCHING AND DELINEATORS. SEE DETAIL SHEET 33
- 5 INSTALL 2'X9' WHITE PLASTIC CROSS-WALK LINES PER WSDOT STANDARD PLAN M-15.10
- 6 24" WHITE PLASTIC STOP LINE (BAR) PER CITY STANDARD PLAN TC-310.
- 7 BUFFER TRANSITION PER DETAIL SHEET 33
- 8 INSTALL RECTANGULAR RAPID FLASHING BEACON(RRFB) PER DETAIL SHEET 34 WITH S1-1 SIGNS.
- 9 INSTALL RECTANGULAR RAPID FLASHING BEACON(RRFB) PER DETAIL SHEET 34 WITH W11-2 SIGNS.
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- 11 INSTALL R1-6a SIGN DOUBLE SIDED WITH POST.
- 12 INSTALL PUSHBUTTON POST, AND R10-25 SIGN FOR BICYCLES.
- 13 INSTALL SHORT FLEXIBLE YELLOW DEL
- 14 INSTALL DOUBLE YELLOW CENTER STF PER COB STANDARD TC-305
- 15 INSTALL DETECTABLE WARNING SURF/ PER WSDOT STANDARD F-45.10-03
- 16 XXX
- 17 INSTALL 8" PLASTIC LANE LINE.
- 18 NOT USED THIS SHEET
- 19 DOTTED EXTENSION LINE PER WSDOT STANDARD M-20.10

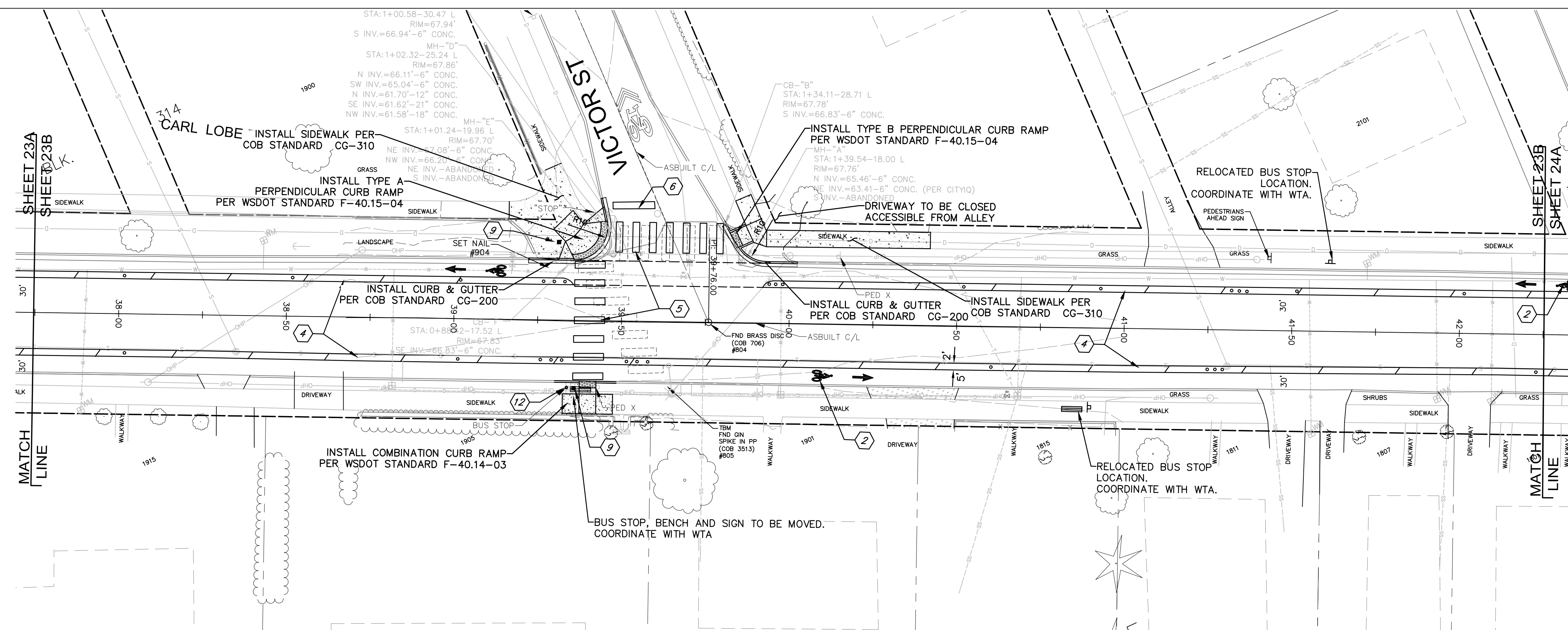


4 3 2 1 Date No Revision By		PROJECT ENGINEER JJB DESIGNED/DRAWN ELH INSPECTOR ?		DIRECTOR OF PUBLIC WORKS E.C.J. CITY ENGINEER C.M.A.S. OPERATIONS ENGINEER M.A.O.		CITY OF BELLINGHAM, WASHINGTON PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION		SCALE Horiz. 1"= 20' Vert. 1"= NA		DATUM NAD 83/98 NAVD 88		Job. No. ES-0563 Date 02/2023 Field Bk. FB		WESTSIDE NON MOTORIZED IMPROVEMENTS ELDRIDGE AVE. STA: 22+75 to 32+75		SHEET 22 OF xx	
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CONTACT PERSON: , PROJECT ENGINEER AT 778-7900

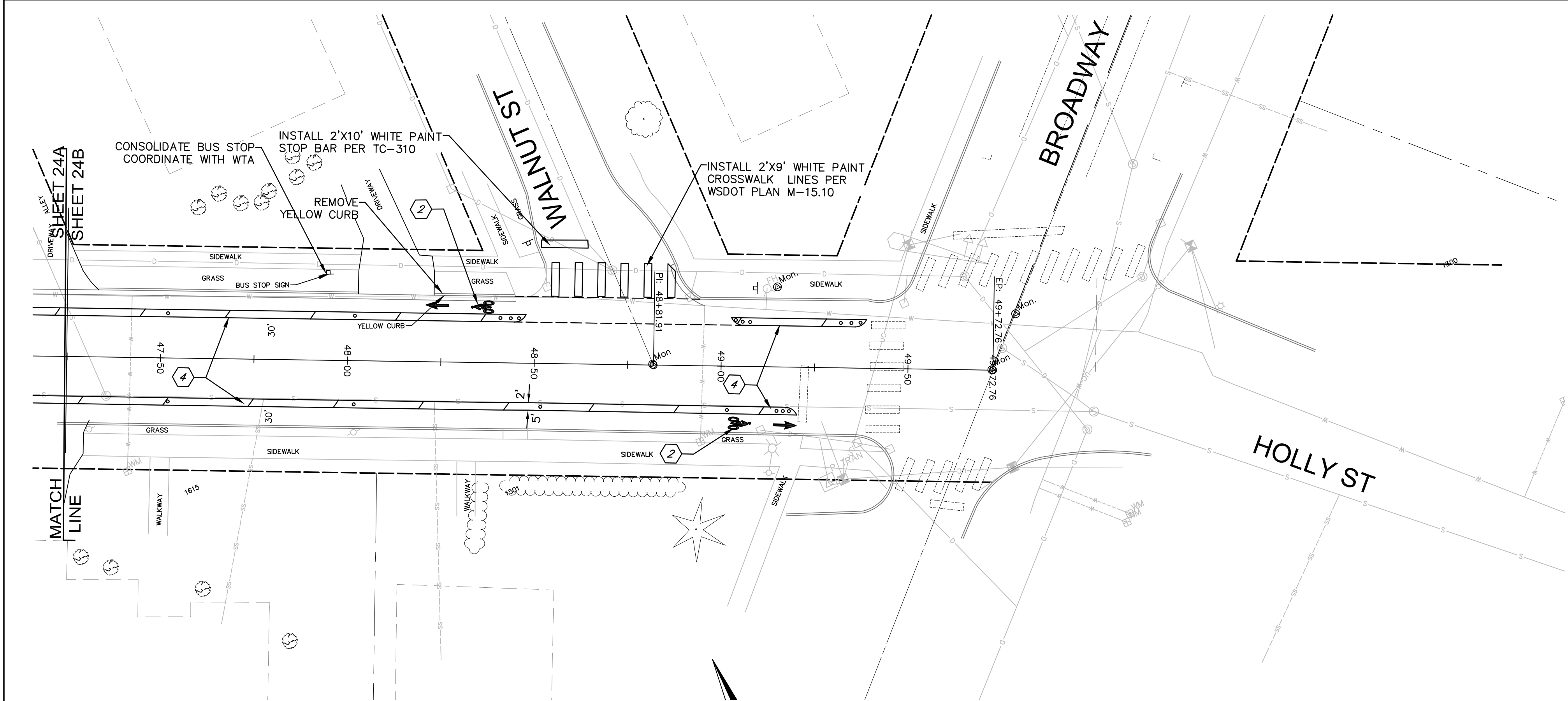
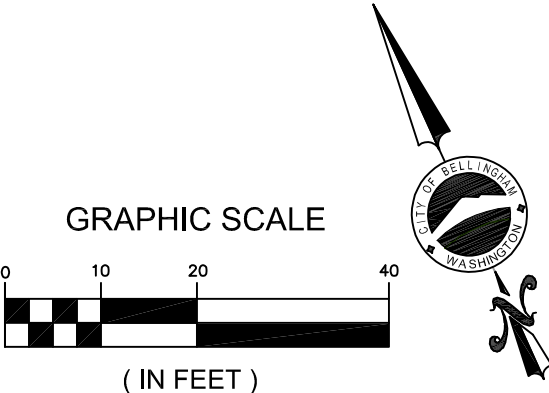
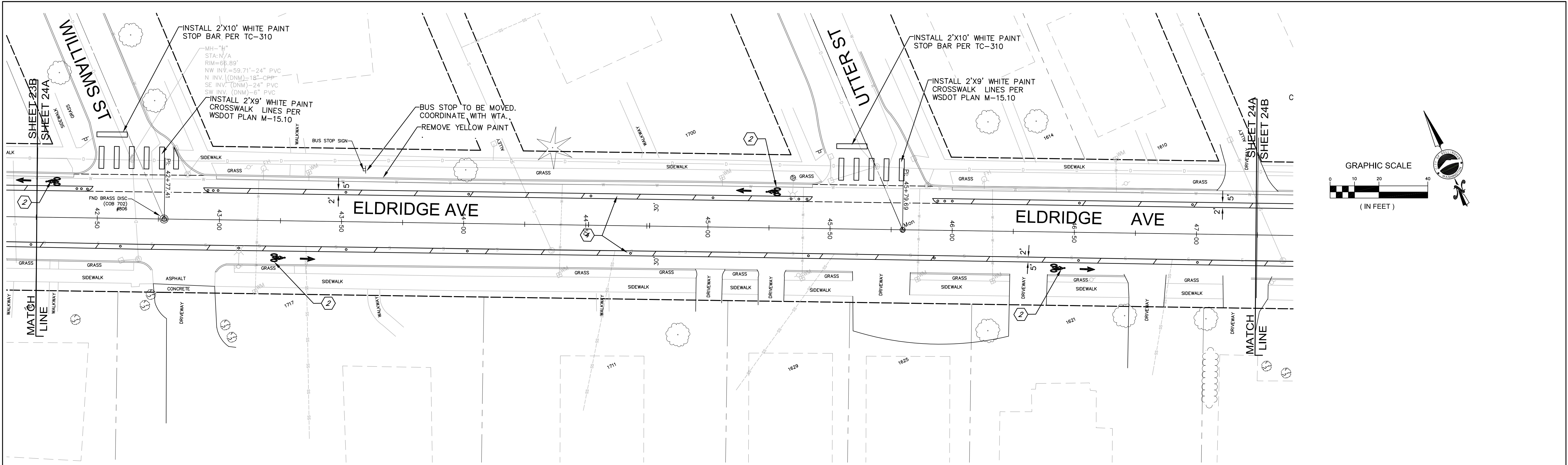


- 1 INSTALL PLASTIC SHARED LANE SYMBOL
AS DIRECTED BY THE ENGINEER
- 2 INSTALL DESIGNATED BIKE LANE AND A
PER CITY STANDARD PLAN TC-315
- 3 BIKE LANE STRIPING
PER CITY STANDARD TC-315
- 4 INSTALL BIKE LANE BUFFER
WITH HATCHING AND DELINEATORS.
SEE DETAIL SHEET 33
- 5 INSTALL 2'X9' WHITE PLASTIC
CROSS-WALK LINES PER
WSDOT STANDARD PLAN M-15.10
- 6 24" WHITE PLASTIC STOP LINE (BAR)
PER CITY STANDARD PLAN TC-310.
- 7 BUFFER TRANSITION
PER DETAIL SHEET 33
- 8 INSTALL RECTANGULAR RAPID
FLASHING BEACON(RRFB) PER
DETAIL SHEET 34 WITH S1-1 SIGNS.
- 9 INSTALL RECTANGULAR RAPID
FLASHING BEACON(RRFB) PER
DETAIL SHEET 34 WITH W11-2 SIGNS.
- 10 INSTALL RECTANGULAR RAPID
FLASHING BEACON(RRFB) PER
DETAIL SHEET 34 WITH W11-15 SIGNS.
- 11 INSTALL R1-6a SIGN DOUBLE
SIDED WITH POST.
- 12 INSTALL PUSHBUTTON POST, AND
R10-25 SIGN FOR BICYCLES.
- 13 INSTALL SHORT FLEXIBLE YELLOW DELINEATOR
- 14 INSTALL DOUBLE YELLOW CENTER STRIPING
PER COB STANDARD TC-305
- 15 INSTALL DETECTABLE WARNING SURFACE
PER WSDOT STANDARD F-45.10-03
- 16 XXX
- 17 INSTALL 8" PLASTIC LANE LINE.
- 18 NOT USED THIS SHEET
- 19 DOTTED EXTENSION LINE PER
WSDOT STANDARD M-20.10



4			PROJECT ENGINEER	JJB	DIRECTOR OF PUBLIC WORKS	E.C.J.	CITY OF BELLINGHAM, WASHINGTON PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION	SCALE	DATUM	Job. No.	ES-0563	WESTSIDE NON MOTORIZED IMPROVEMENTS ELDRIDGE AVE. STA: 32+75 to 42+75	SHEET 23 OF 4x
3			DESIGNED/DRAWN	ELH	CITY ENGINEER	C.M.A.S.		Horiz.	NAD 83/98	Date	02/2023		
2	60% review		INSPECTOR	?	OPERATIONS ENGINEER	M.A.O.		Vert.	NAVD 88	Field Bk.	FB		
1													
Date	No	Revision	By										

CONTACT PERSON: _____, PROJECT ENGINEER AT 778-7900



CONSTRUCTION NOTES:

- 1

INSTALL PLASTIC SHARED LANE SYM AS DIRECTED BY THE ENGINEER
- 2

INSTALL DESIGNATED BIKE LANE AN PER CITY STANDARD PLAN TC-315
- 3

BIKE LANE STRIPING PER CITY STANDARD TC-315
- 4

INSTALL BIKE LANE BUFFER WITH HATCHING AND DELINEATORS. SEE DETAIL SHEET 33
- 5

INSTALL 2'X9' WHITE PLASTIC CROSS-WALK LINES PER WSDOT STANDARD PLAN M-15.10
- 6

24" WHITE PLASTIC STOP LINE (BAF PER CITY STANDARD PLAN TC-310.
- 7

BUFFER TRANSITION PER DETAIL SHEET 33
- 8

INSTALL RECTANGULAR RAPID FLASHING BEACON(RRFB) PER DETAIL SHEET 34 WITH S1-1 SIGNS.
- 9

INSTALL RECTANGULAR RAPID FLASHING BEACON(RRFB) PER DETAIL SHEET 34 WITH W11-2 SIGN
- 10

INSTALL RECTANGULAR RAPID FLASHING BEACON(RRFB) PER DETAIL SHEET 34 WITH W11-15 SIG
- 11

INSTALL R1-6a SIGN DOUBLE SIDED WITH POST.
- 12

INSTALL PUSHBUTTON POST, AND R10-25 SIGN FOR BICYCLES.
- 13

INSTALL SHORT FLEXIBLE YELLOW DEL
- 14

INSTALL DOUBLE YELLOW CENTER STR PER COB STANDARD TC-305
- 15

INSTALL DETECTABLE WARNING SURFA PER WSDOT STANDARD F-45.10-03
- 16

XXX
- 17

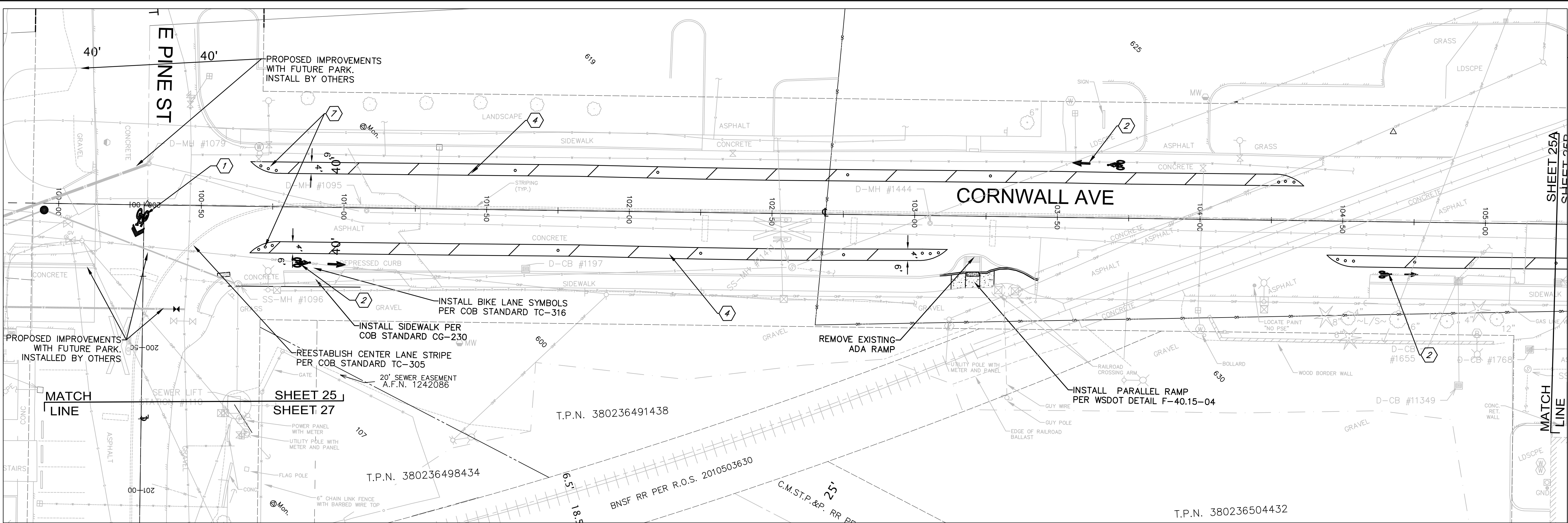
INSTALL 8" PLASTIC LANE LINE.
- 18

NOT USED THIS SHEET
- 19

DOTTED EXTENSION LINE PER WSDOT STANDARD M-20.10

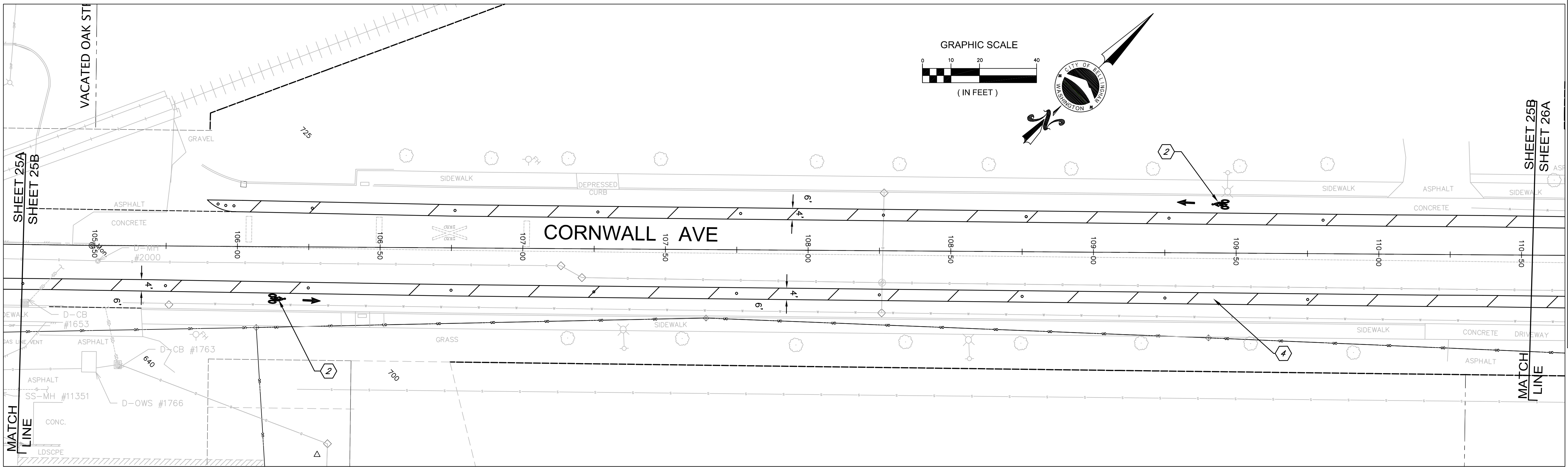
4 3 2 1 Date No Revision By		60% review		PROJECT ENGINEER JJB DESIGNED/DRAWN ELH INSPECTOR ?		DIRECTOR OF PUBLIC WORKS E.C.J. CITY ENGINEER C.M.A.S. OPERATIONS ENGINEER M.A.O.		CITY OF BELLINGHAM, WASHINGTON PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION		SCALE Horiz. 1"= 20' Vert. 1"= NA		DATUM NAD 83/98 NAVD 88		Job. No. ES-0563 Date 02/2023 Field Bk. FB		WESTSIDE NON MOTORIZED IMPROVEMENTS ELDRIDGE AVE. STA: 42+75 to 50+00		SHEET 24 OF 24 xx	
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CONTACT PERSON: , PROJECT ENGINEER AT 778-7900



CONSTRUCTION NOTES:

- 1 INSTALL PLASTIC SHARED LANE SYMBOL AS DIRECTED BY THE ENGINEER
- 2 INSTALL DESIGNATED BIKE LANE AND ARROW SYMBOLS PER CITY STANDARD PLAN TC-315
- 3 BIKE LANE STRIPING PER CITY STANDARD TC-315
- 4 INSTALL BIKE LANE BUFFER WITH HATCHING AND DELINEATORS. SEE DETAIL SHEET 33
- 5 INSTALL 2'X9' WHITE PLASTIC CROSS-WALK LINES PER WSDOT STANDARD PLAN M-15.10
- 6 24" WHITE PLASTIC STOP LINE (BAR) PER CITY STANDARD PLAN TC-310.
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- 8 INSTALL RECTANGULAR RAPID FLASHING BEACON(RRFB) PER DETAIL SHEET 34 WITH S1-1 SIGNS.
- 9 INSTALL RECTANGULAR RAPID FLASHING BEACON(RRFB) PER DETAIL SHEET 34 WITH W11-2 SIGNS.
- 10 INSTALL RECTANGULAR RAPID FLASHING BEACON(RRFB) PER DETAIL SHEET 34 WITH W11-15 SIGNS.
- 11 INSTALL R1-6a SIGN DOUBLE SIDED WITH POST.
- 12 INSTALL PUSHBUTTON POST, AND R10-25 SIGN FOR BICYCLES.
- 13 INSTALL SHORT FLEXIBLE YELLOW DELINEATOR
- 14 INSTALL DOUBLE YELLOW CENTER STRIPE PER COB STANDARD TC-305
- 15 INSTALL DETECTABLE WARNING SURFACE PER WSDOT STANDARD F-45.10-03
- 16 XXX
- 17 INSTALL 8" PLASTIC LANE LINE.
- 18 NOT USED THIS SHEET
- 19 DOTTED EXTENSION LINE PER WSDOT STANDARD M-20.10



4	60% review	
3		
2		
1		
Date	No	Revision
		By

PROJECT ENGINEER	JJB
DESIGNED/DRAWN	ELH
INSPECTOR	?

DIRECTOR OF PUBLIC WORKS	E.C.J.
CITY ENGINEER	C.A.M.S.
OPERATIONS ENGINEER	M.A.O.

CITY OF BELLINGHAM, WASHINGTON
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

SCALE
Horiz. 1"= 20'
Vert. 1"= NA

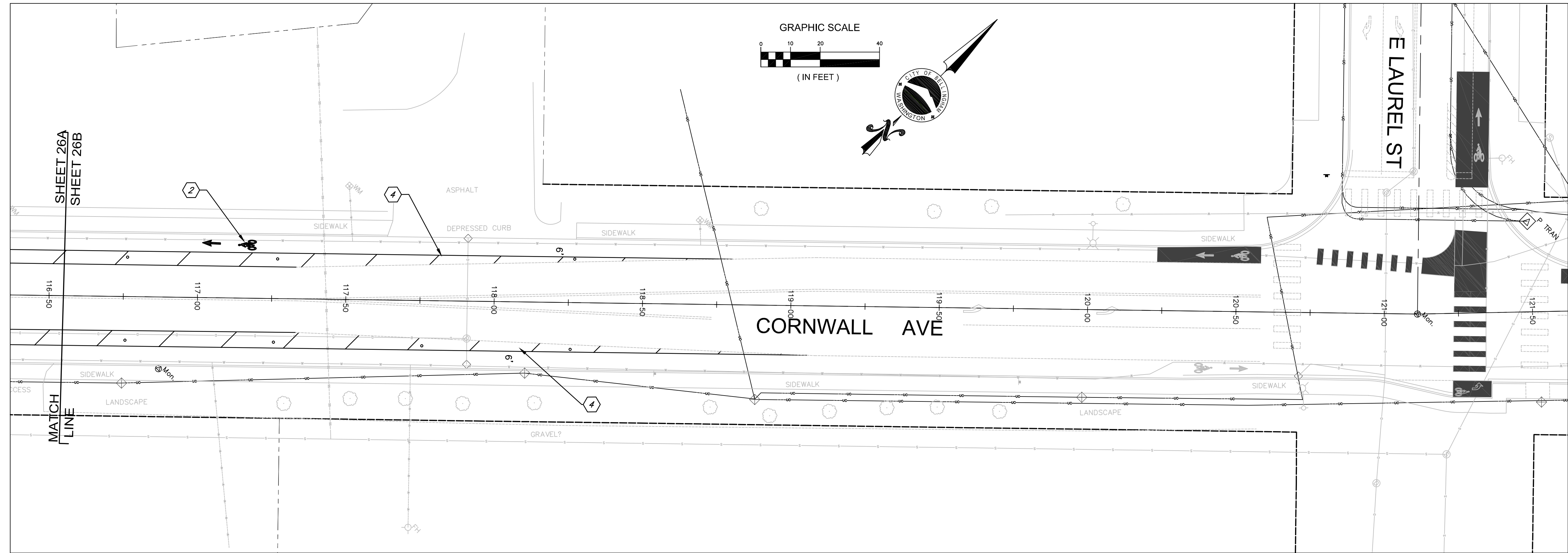
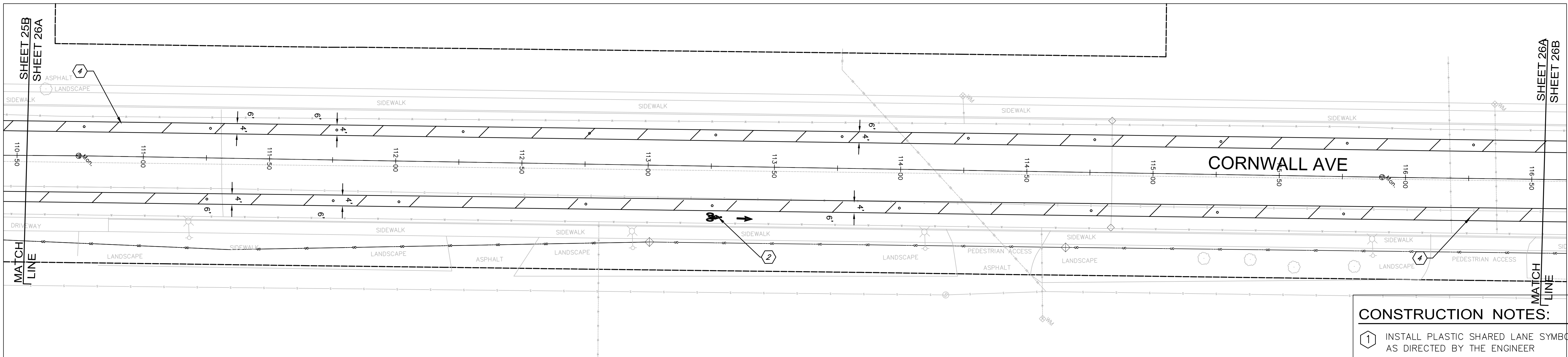
DATUM
NAD 83/98
NAVD 88

Job. No.	ES-0563
Date	02/2023
Field Bk.	_FB

WESTSIDE NON MOTORIZED IMPROVEMENTS
CORNWALL AVE. STA: 100+00 to 110+50

SHEET	OF
25	xx

CONTACT PERSON: _____, PROJECT ENGINEER AT 778-7900



CONSTRUCTION NOTES:

- 1 INSTALL PLASTIC SHARED LANE SYMBOL AS DIRECTED BY THE ENGINEER
- 2 INSTALL DESIGNATED BIKE LANE AND ARROW SYMBOLS PER CITY STANDARD PLAN TC-315
- 3 BIKE LANE STRIPING PER CITY STANDARD TC-315
- 4 INSTALL BIKE LANE BUFFER WITH HATCHING AND DELINEATORS. SEE DETAIL SHEET 33
- 5 INSTALL 2'X9' WHITE PLASTIC CROSS-WALK LINES PER WSDOT STANDARD PLAN M-15.10
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- 14 INSTALL DOUBLE YELLOW CENTER STRIPE PER COB STANDARD TC-305
- 15 INSTALL DETECTABLE WARNING SURFACE PER WSDOT STANDARD F-45.10-03
- 16 XXX
- 17 INSTALL 8" PLASTIC LANE LINE.

	4		
	3	60% review	
	2		
	1		
Date	No	Revision	By

PROJECT ENGINEER	JJB
DESIGNED/DRAWN	ELH
INSPECTOR	?

DIRECTOR OF PUBLIC WORKS	E.C.J.
CITY ENGINEER	C.A.M.S.
OPERATIONS ENGINEER	M.A.O.

CITY OF BELLINGHAM, WASHINGTON
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

SCALE
Horiz. 1"= 20'
Vert. 1"= NA

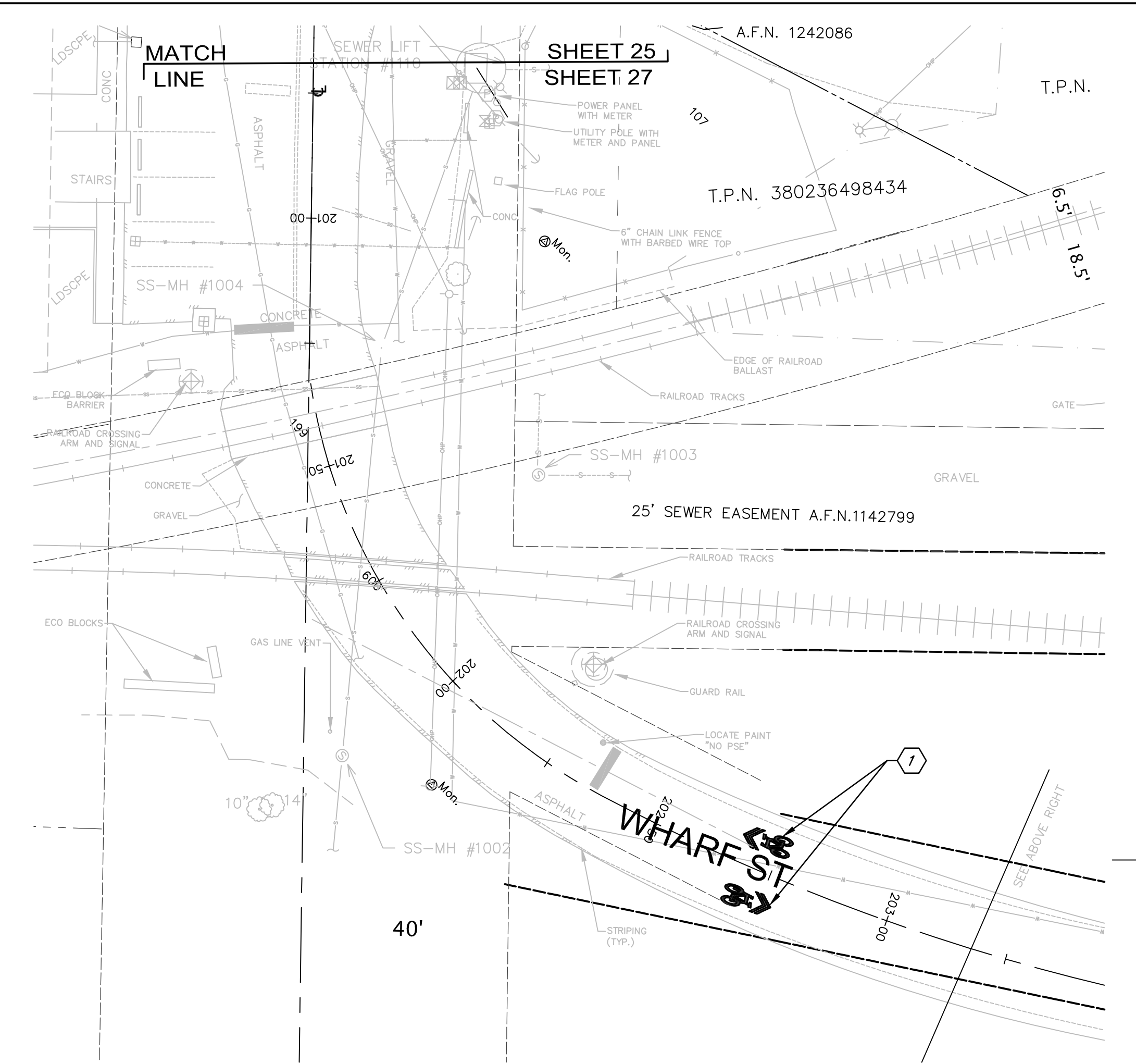
DATUM
NAD 83/98
NAVD 88

Job. No.	ES-0563
Date	02/2023
Field Bk.	FB

WESTSIDE NON MOTORIZED IMPROVEMENTS
CORNWALL AVE. STA: 110+50 to 121+50

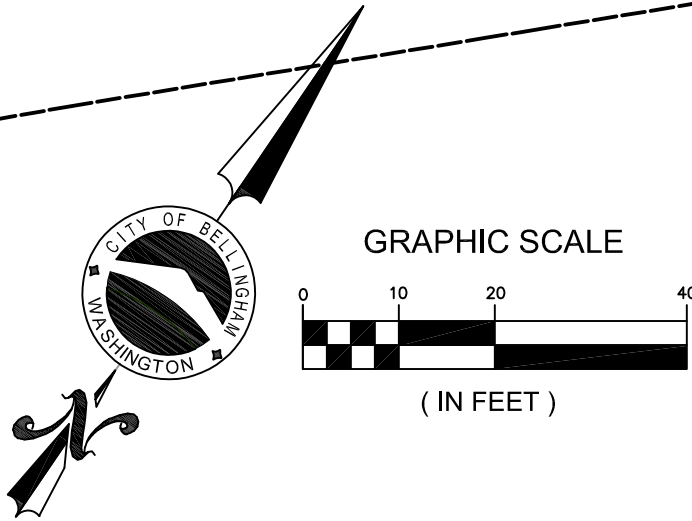
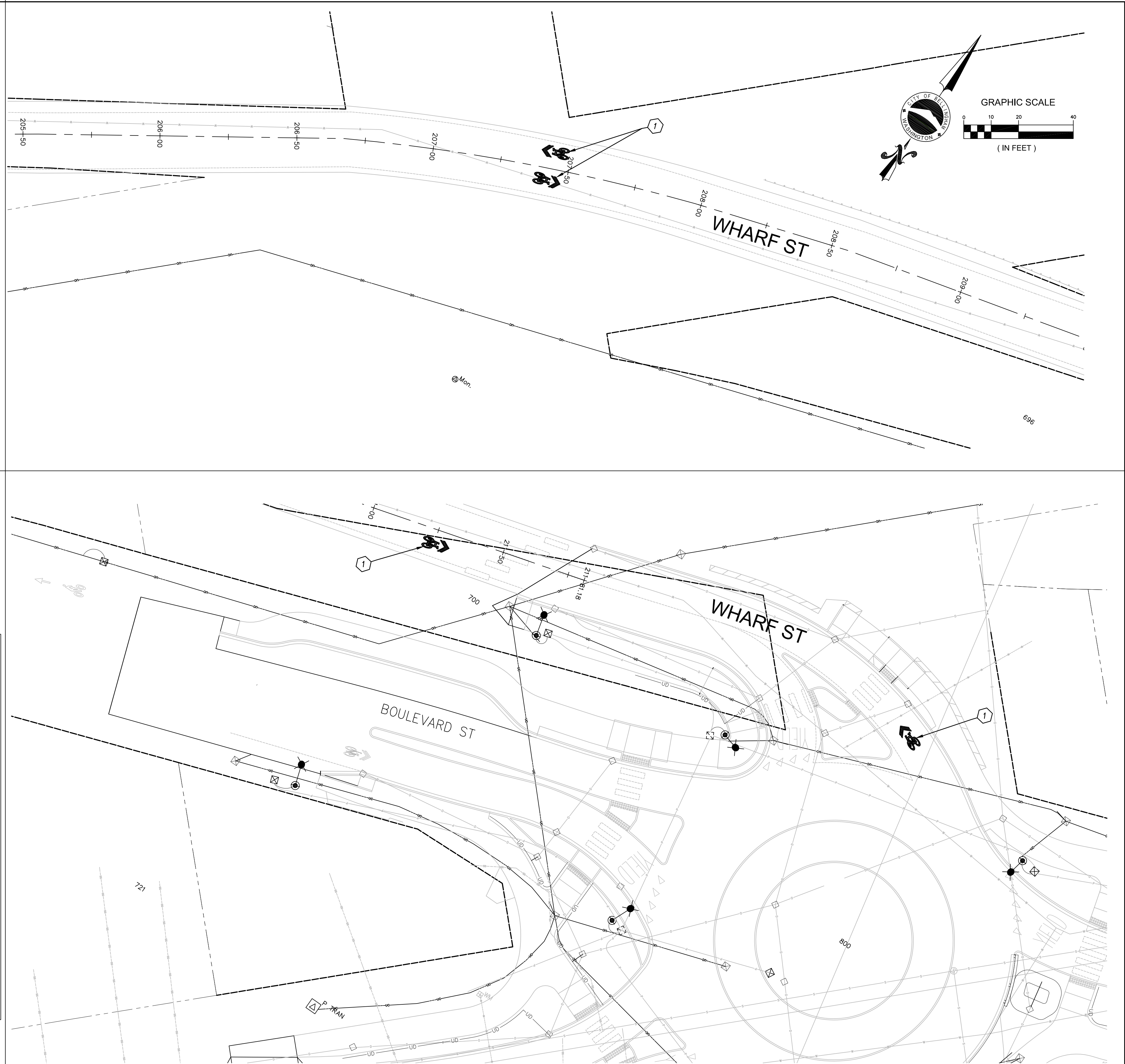
SHEET	OF
26	xx

CONTACT PERSON: , PROJECT ENGINEER AT 778-7900



- CONSTRUCTION NOTES:**
- 1 INSTALL PLASTIC SHARED LANE SYMBOL AS DIRECTED BY THE ENGINEER
 - 2 INSTALL DESIGNATED BIKE LANE AND ARROW SYMBOLS PER CITY STANDARD PLAN TC-315
 - 3 BIKE LANE STRIPING PER CITY STANDARD TC-315
 - 4 INSTALL BIKE LANE BUFFER WITH HATCHING AND DELINEATORS. SEE DETAIL SHEET 33
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- DETAIL SHEET 34 WITH ST-1 SIGNS.
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 - 14 INSTALL DOUBLE YELLOW CENTER STRIPE PER COB STANDARD TC-305
 - 15 INSTALL DETECTABLE WARNING SURFACE PER WSDOT STANDARD F-45.10-03
 - 16 XXX
 - 17 INSTALL 8" PLASTIC LANE LINE.
 - 18 NOT USED THIS SHEET



	4	60% review	
	3		
	2		
	1		
Date	No	Revision	By

PROJECT ENGINEER	JJB
DESIGNED/DRAWN	ELH
INSPECTOR	?

DIRECTOR OF PUBLIC WORKS	E.C.J.
CITY ENGINEER	C.A.M.S.
OPERATIONS ENGINEER	M.A.O.

CITY OF BELLINGHAM, WASHINGTON
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

SCALE
Horiz. 1"= 20'
Vert. 1"= NA

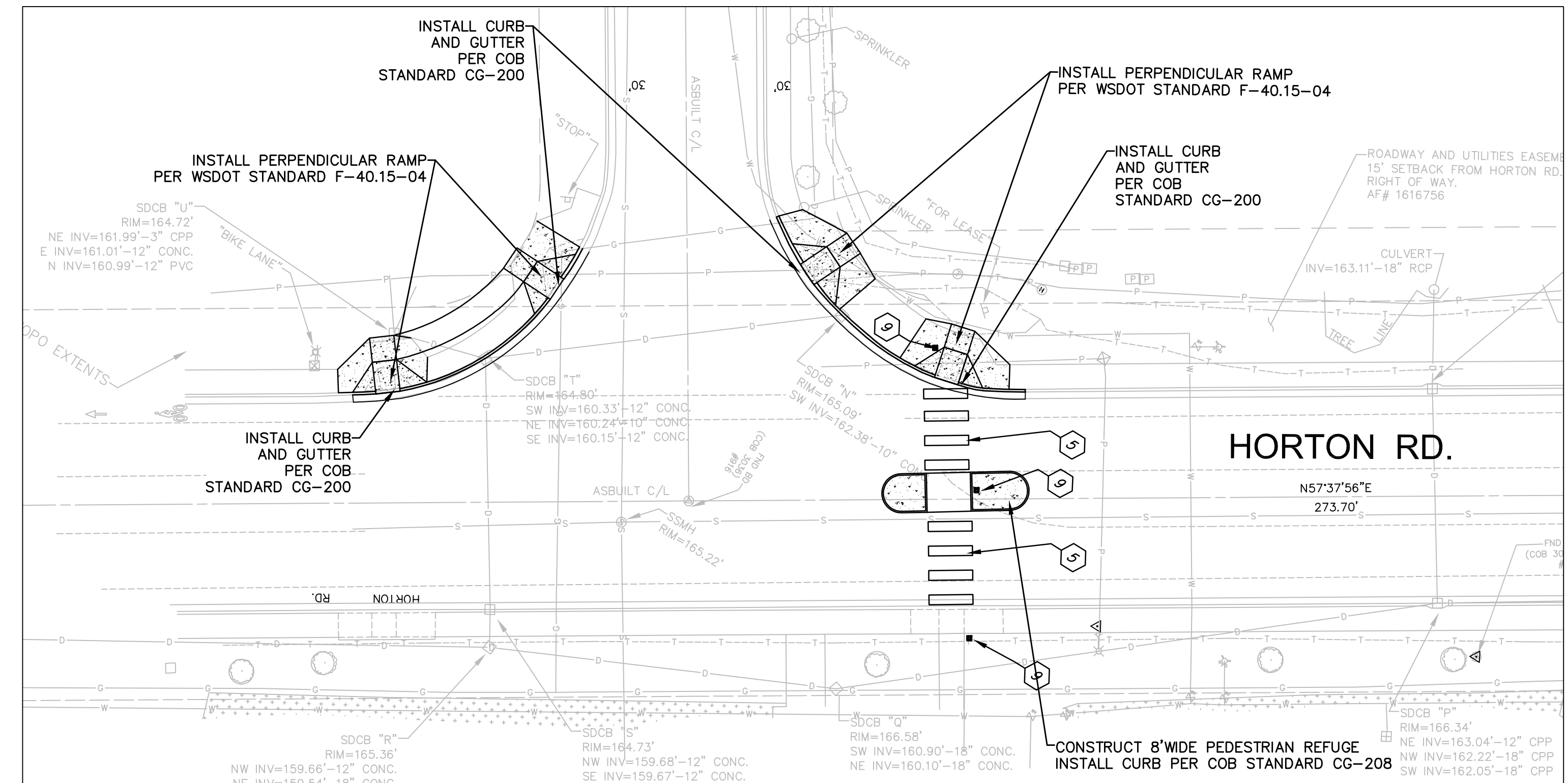
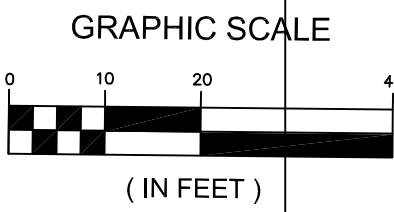
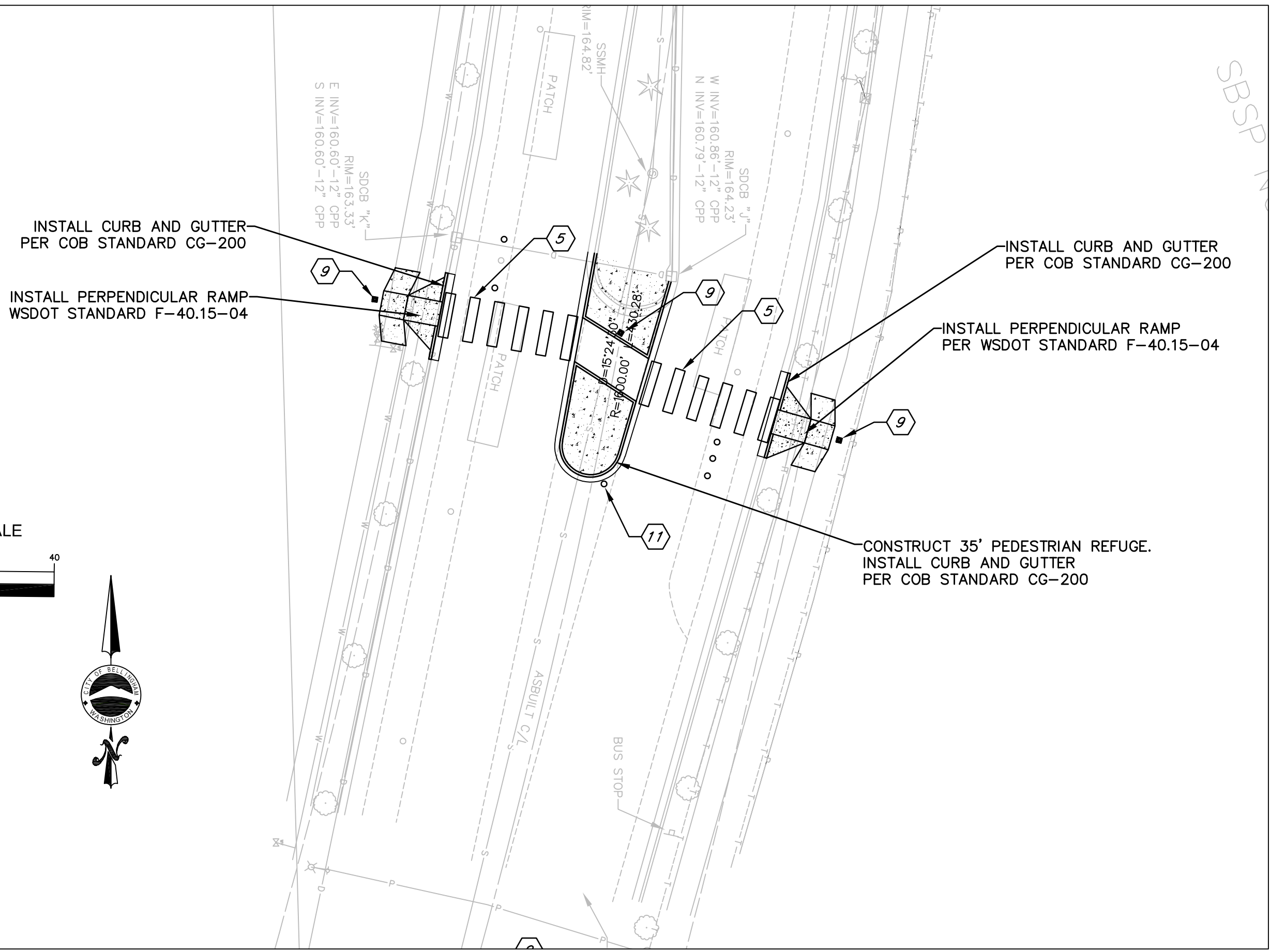
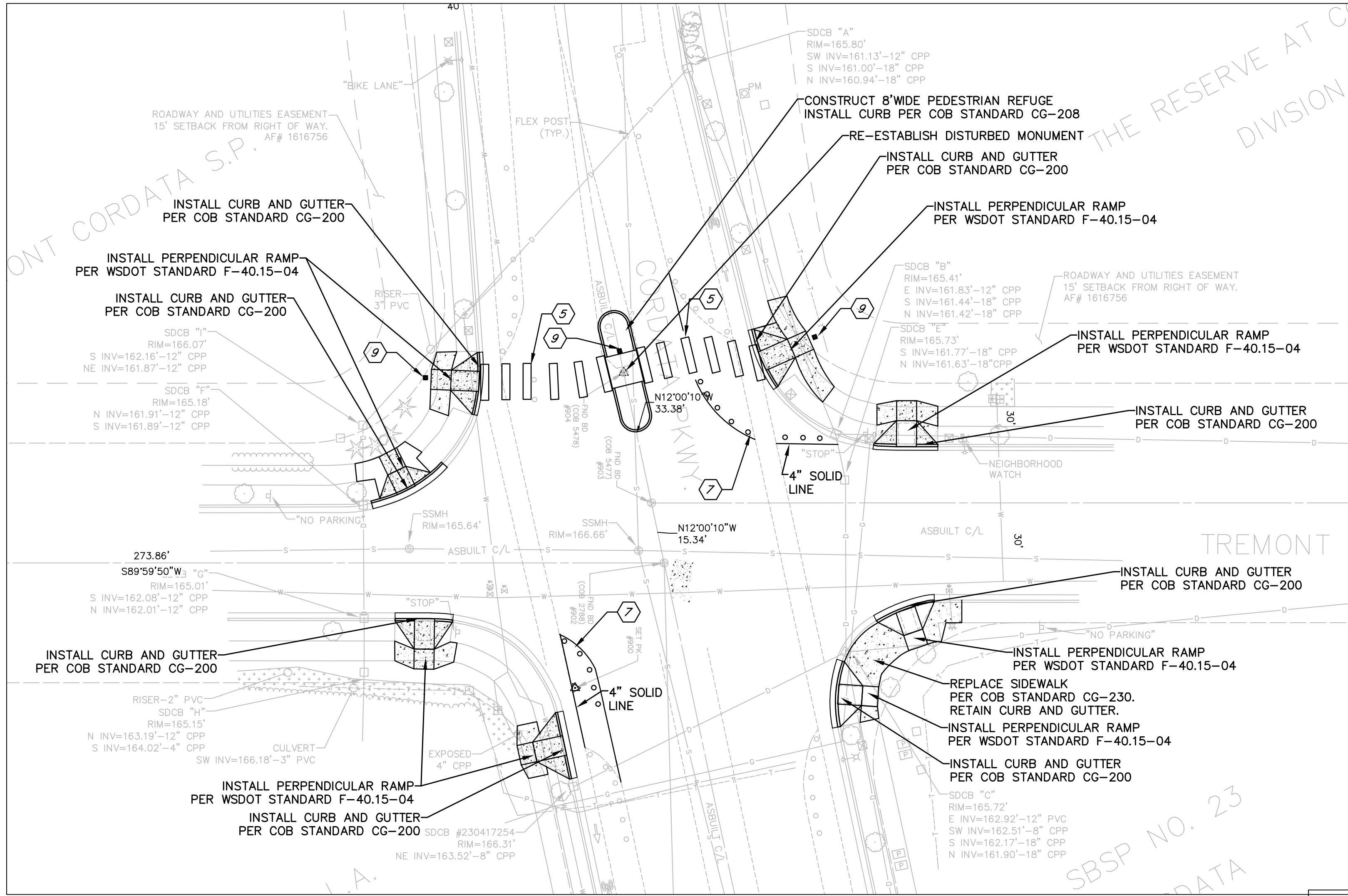
DATUM
NAD 83/98
NAVD 88

Job. No.	ES-0563
Date	02/2023
Field Bk.	_FB

WESTSIDE NON MOTORIZED IMPROVEMENTS
CHANNELIZATION WHARF ST.

SHEET	OF
27	xx

CONTACT PERSON: _____, PROJECT ENGINEER AT 778-7900



CONSTRUCTION NOTES:

- 1 INSTALL PLASTIC SHARED LANE SYMBOL AS DIRECTED BY THE ENGINEER
- 2 INSTALL DESIGNATED BIKE LANE AND ARROW SYMBOLS PER CITY STANDARD PLAN TC-315
- 3 BIKE LANE STRIPING PER CITY STANDARD TC-315
- 4 INSTALL BIKE LANE BUFFER WITH HATCHING AND DELINEATORS. SEE DETAIL SHEET 33
- 5 INSTALL 2'X9' WHITE PLASTIC CROSS-WALK LINES PER WSDOT STANDARD PLAN M-15.10
- 6 24" WHITE PLASTIC STOP LINE (BAR) PER CITY STANDARD PLAN TC-310.
- 7 BUFFER TRANSITION PER DETAIL SHEET 33
- 8 INSTALL RECTANGULAR RAPID FLASHING BEACON(RRFB) PER DETAIL SHEET 34 WITH S1-1 SIGNS.
- 9 INSTALL RECTANGULAR RAPID FLASHING BEACON(RRFB) PER DETAIL SHEET 34 WITH W11-2 SIGNS.

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- 13 INSTALL SHORT FLEXIBLE YELLOW DELINEATOR
- 14 INSTALL DOUBLE YELLOW CENTER STRIPE PER COB STANDARD TC-305
- 15 INSTALL DETECTABLE WARNING SURFACE PER WSDOT STANDARD F-45.10-03
- 16 XXX
- 17 INSTALL 8" PLASTIC LANE LINE.
- 18 NOT USED THIS SHEET
- 19 DOTTED EXTENSION LINE PER WSDOT STANDARD M-20.10

4	3		
3	2	60% review	
2	1		
Date	No	Revision	By

PROJECT ENGINEER	JJB
DESIGNED/DRAWN	ELH
INSPECTOR	?

DIRECTOR OF PUBLIC WORKS	E.C.J.
CITY ENGINEER	C.A.M.S.
OPERATIONS ENGINEER	M.A.O.

CITY OF BELLINGHAM, WASHINGTON
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

SCALE
Horiz. 1"=20'
Vert. 1"=NA

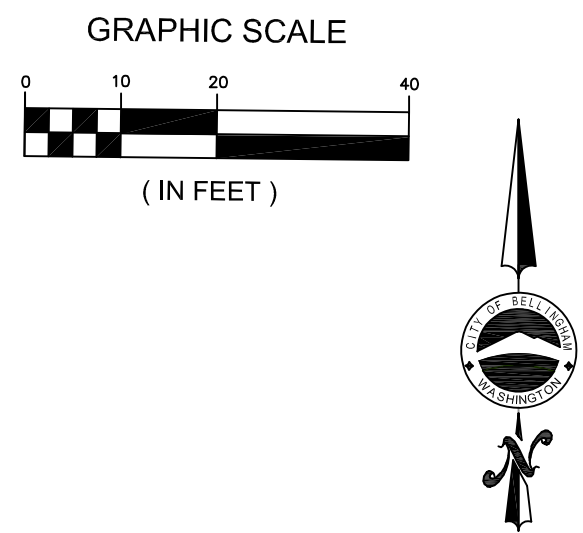
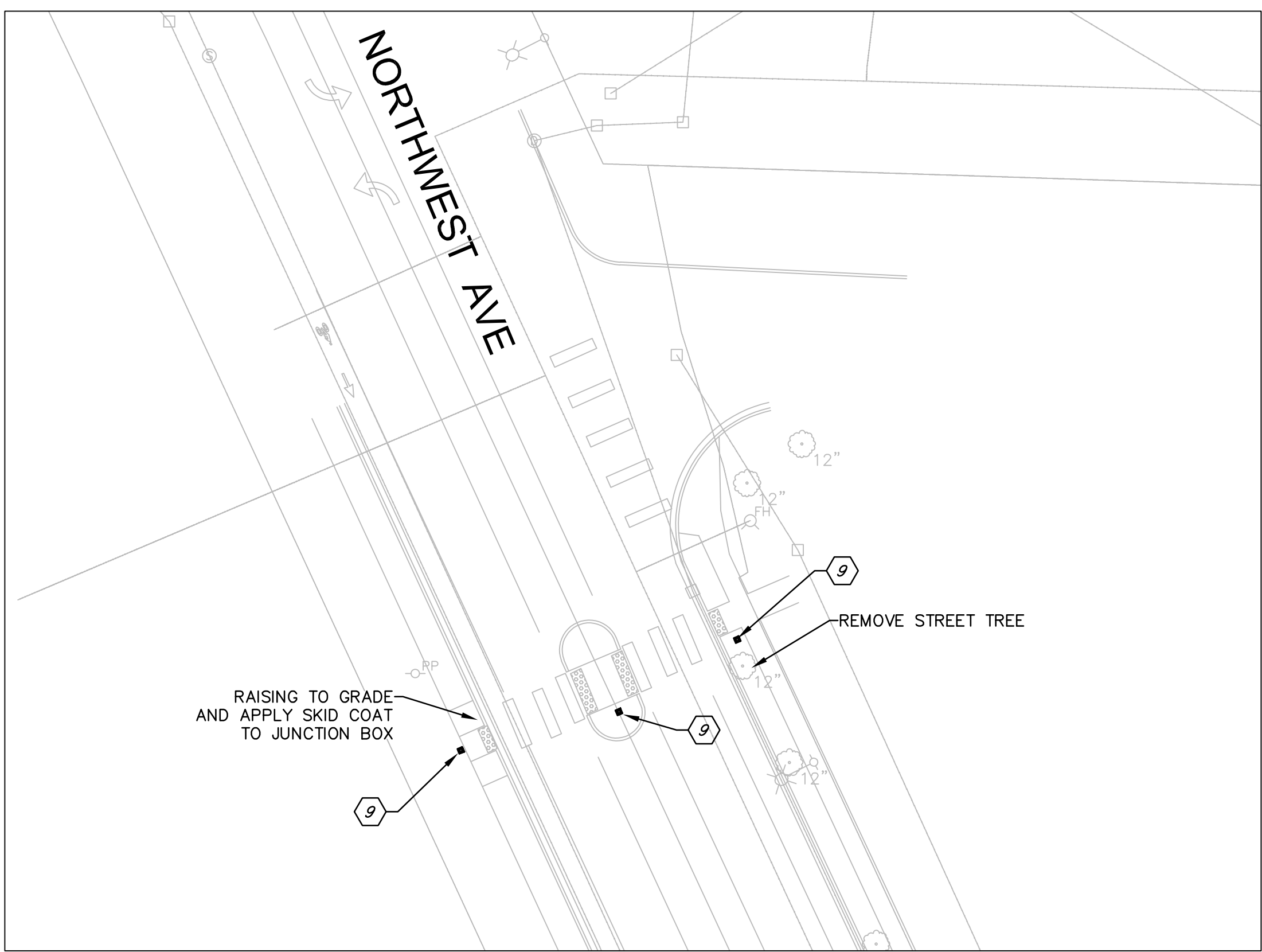
DATUM
NAD 83/98
NAVD 88

Job. No.	ES-0563
Date	02/2023
Field Bk.	_FB

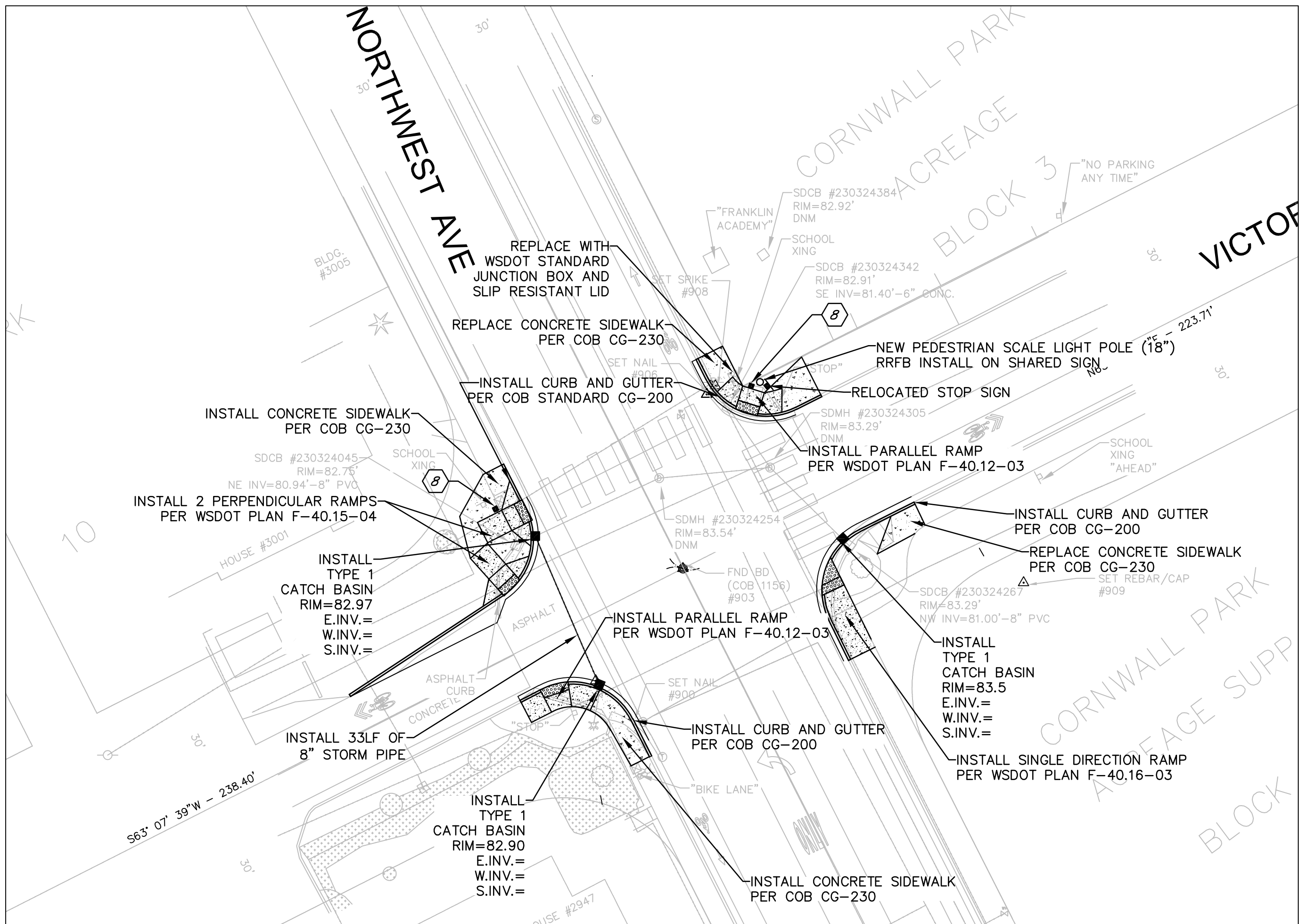
WESTSIDE NON MOTORIZED IMPROVEMENTS
CHANNELIZATION & RRFB INTERSECTIONS 1, 2, 3

SHEET	OF
28	xx

CONTACT PERSON: _____, PROJECT ENGINEER AT 778-7900



- 1 INSTALL PLASTIC SHARED LANE SYMBOL
AS DIRECTED BY THE ENGINEER
- 2 INSTALL DESIGNATED BIKE LANE AND ARROW SYMBOLS
PER CITY STANDARD PLAN TC-315
- 3 BIKE LANE STRIPING
PER CITY STANDARD TC-315
- 4 INSTALL BIKE LANE BUFFER
WITH HATCHING AND DELINEATORS.
SEE DETAIL SHEET 33
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CROSS-WALK LINES PER
WSDOT STANDARD PLAN M-15.10
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PER WSDOT STANDARD F-45.10-03
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- 18 NOT USED THIS SHEET
- 19 DOTTED EXTENSION LINE PER
WSDOT STANDARD M-20.10



	4		
	3		
	2	60% review	
	1		
Date	No	Revision	By

PROJECT ENGINEER JJB
DESIGNED/DRAWN ELH
INSPECTOR ?

DIRECTOR OF PUBLIC WORKS E.C.J.
CITY ENGINEER C.A.M.S.
OPERATIONS ENGINEER M.A.O.

CITY OF BELLINGHAM, WASHINGTON
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

SCALE

Horiz. 1" = 20'

Vert. 1" = NA

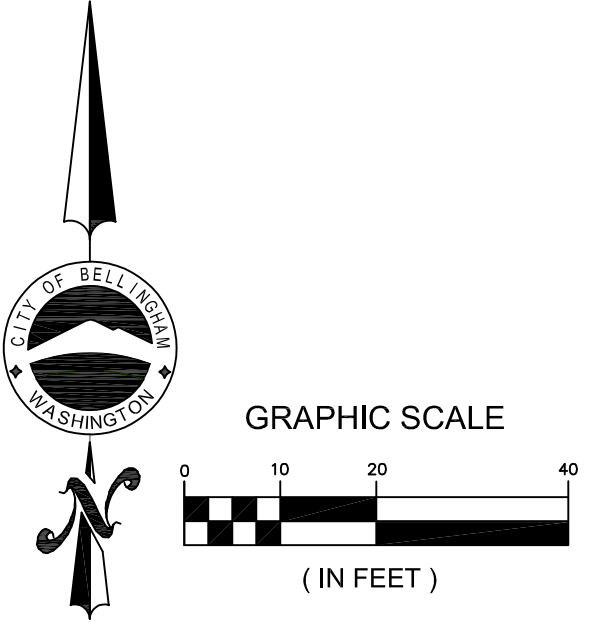
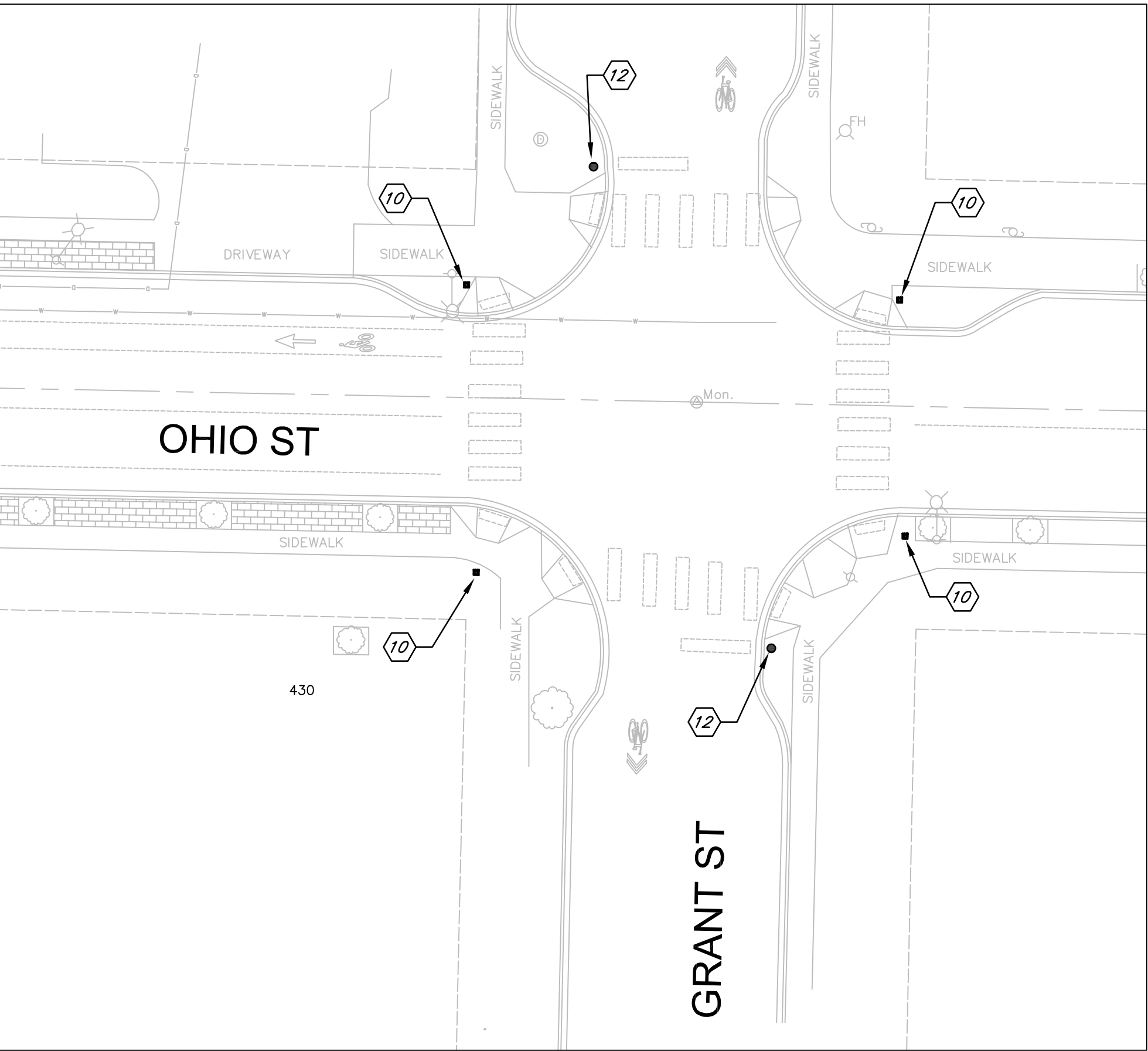
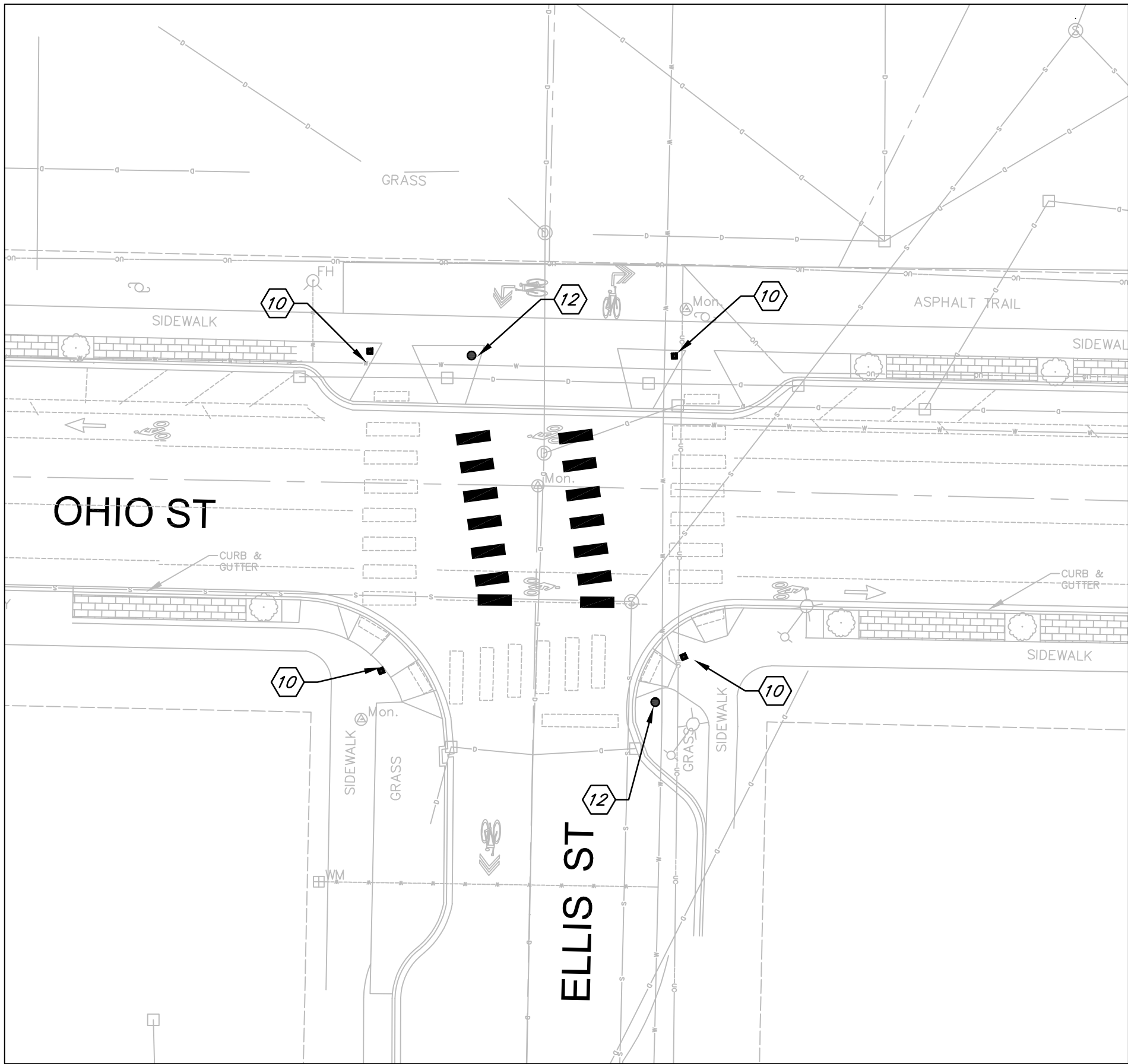
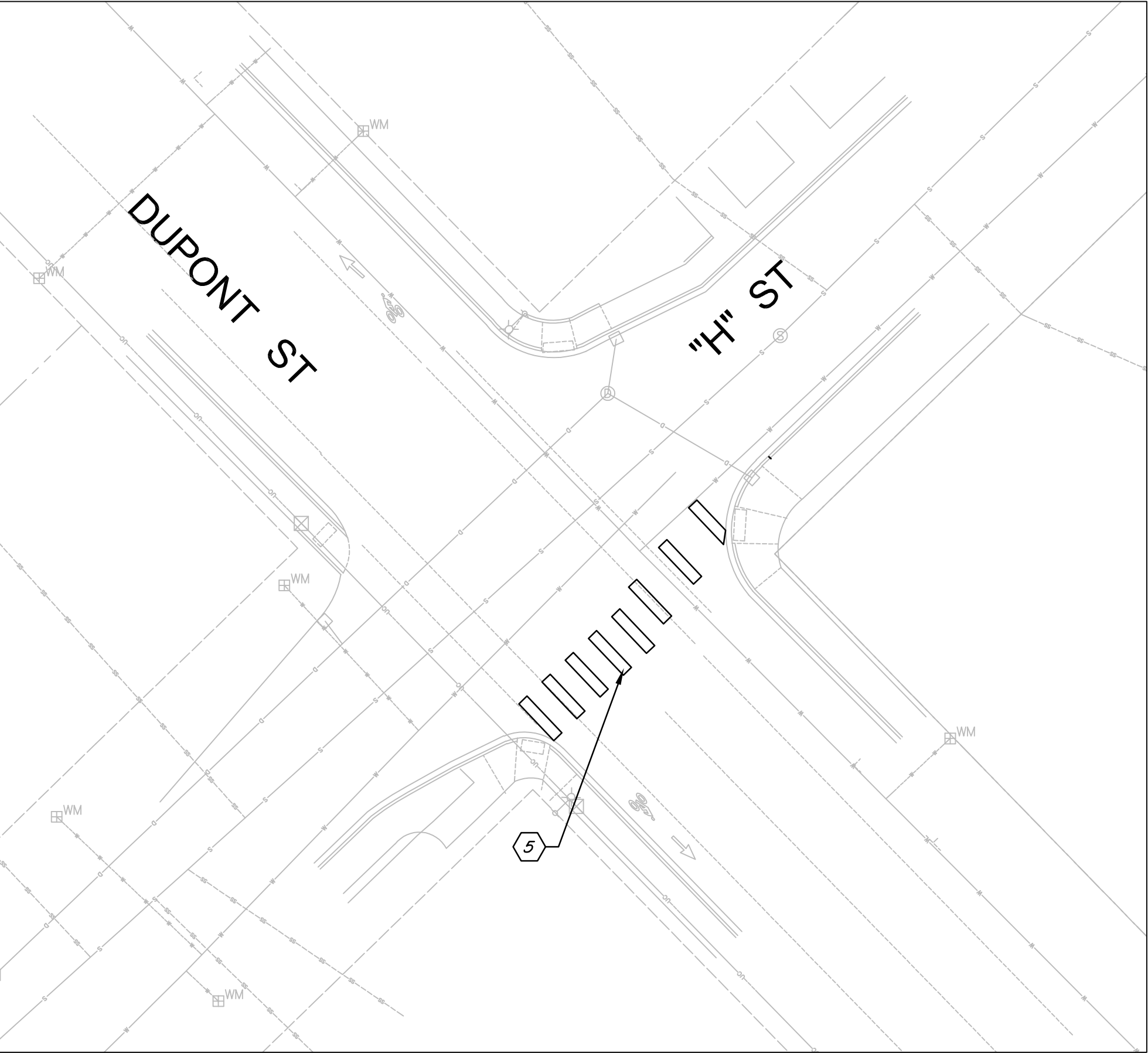
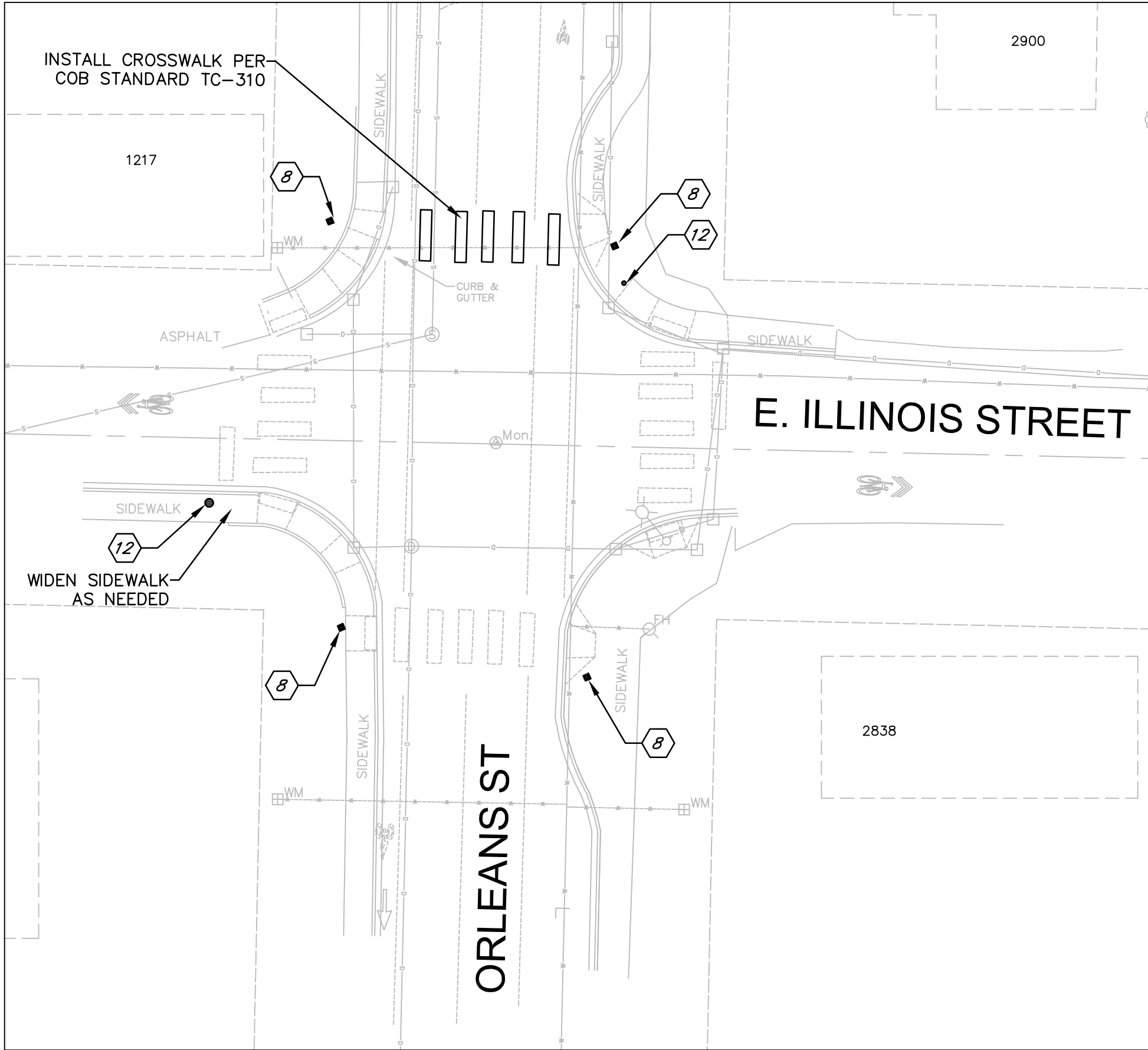
DATUM
NAD 83/98
NAVD 88

Job. No. ES-0563
Date 02/2023
Field Bk. FB

WESTSIDE NON-MOTORIZED IMPROVEMENTS CHANNELIZATION & RRFB 4, 5, & 6

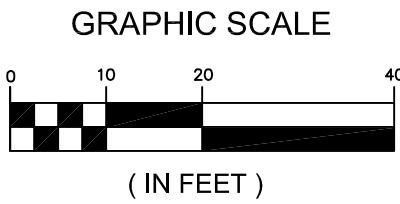
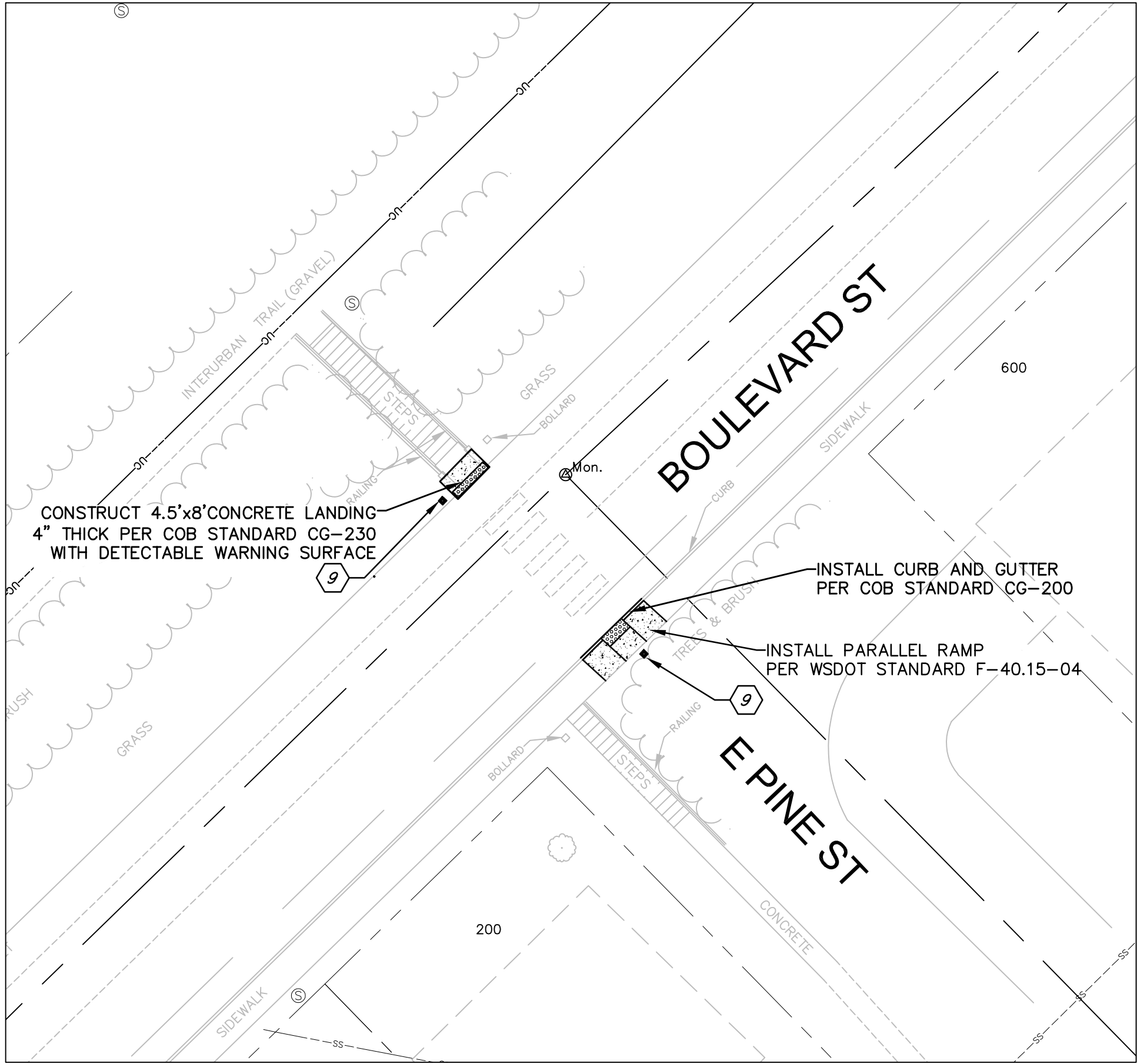
SHEET
29 OF
xx

CONTACT PERSON: _____, PROJECT ENGINEER AT 778-7900



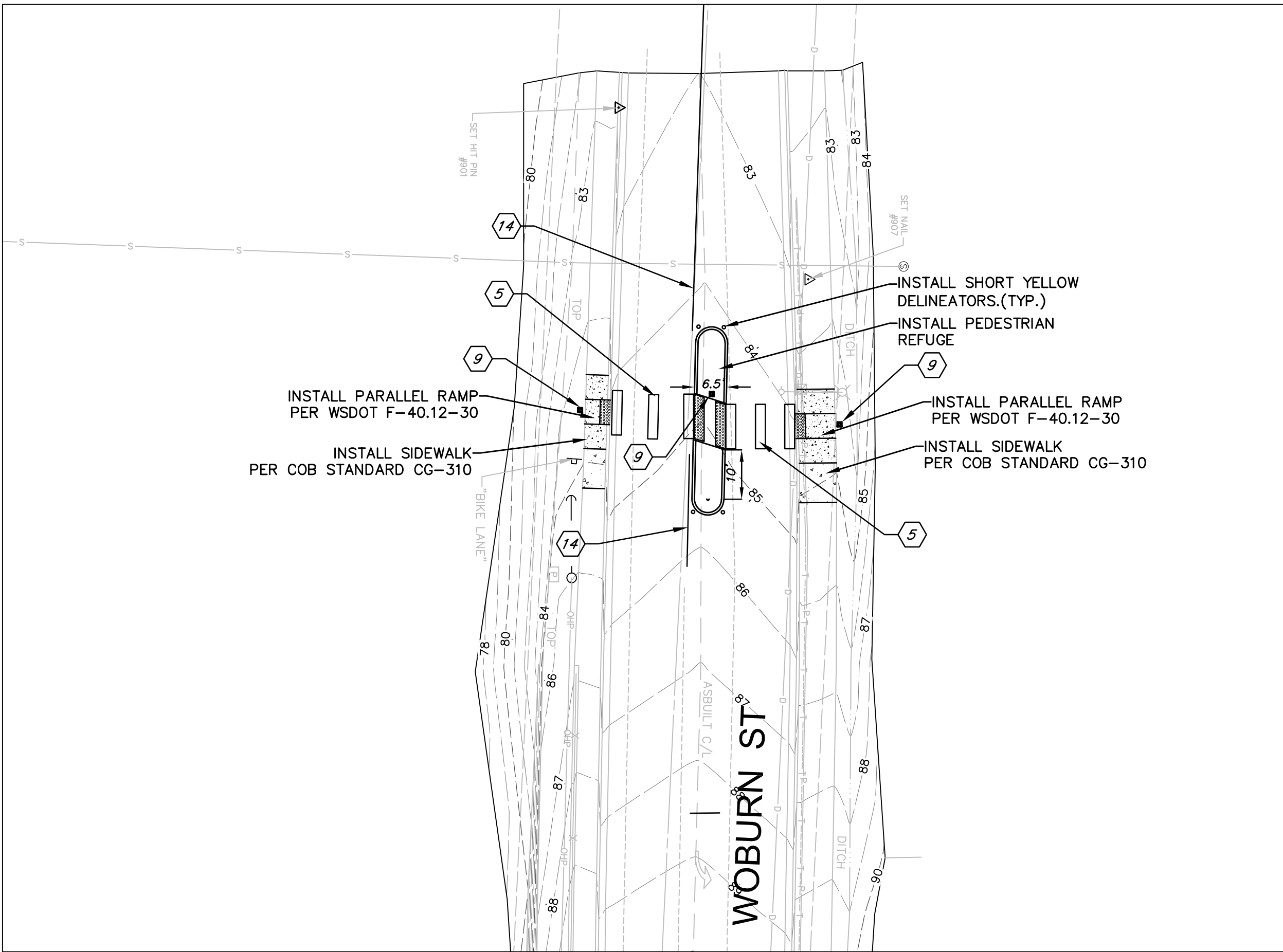
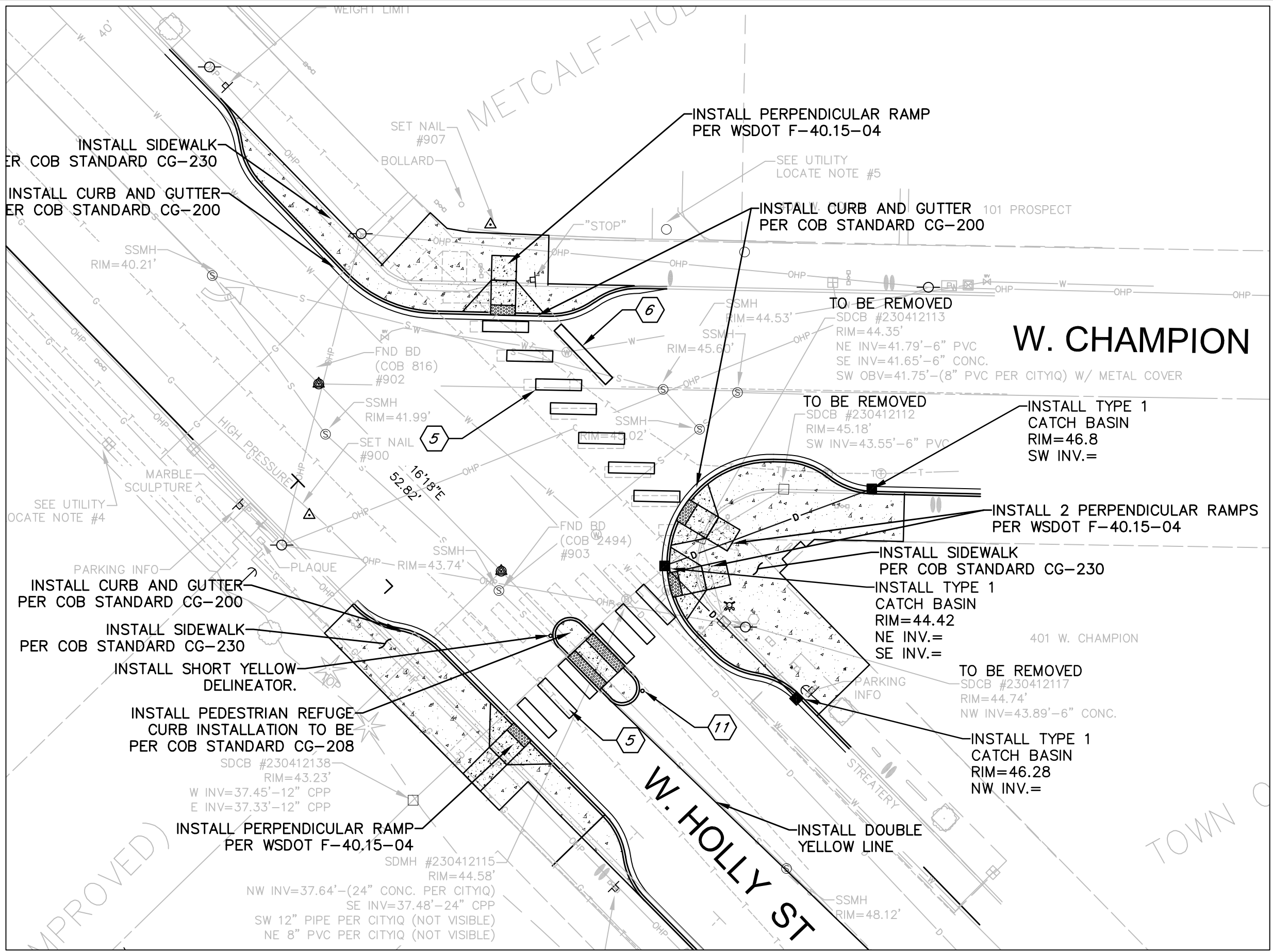
CONSTRUCTION NOTES:

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- 18 NOT USED THIS SHEET
- 19 DOTTED EXTENSION LINE PER



CONSTRUCTION NOTES:

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4			
3			
2		30% DESIGN	
1			
Date	No	Revision	By

PROJECT ENGINEER	JJB
DESIGNED/DRAWN	ELH
INSPECTOR	?

DIRECTOR OF PUBLIC WORKS	E.C.J.
CITY ENGINEER	C.A.M.S.
OPERATIONS ENGINEER	M.A.O.

CITY OF BELLINGHAM, WASHINGTON
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

SCALE
Horiz. 1"=20'
Vert. 1"=NA

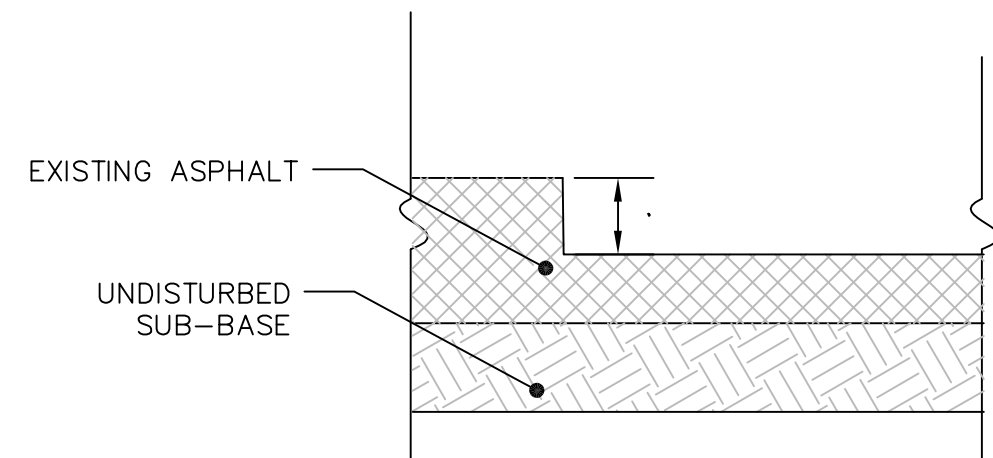
DATUM
NAD 83/98
NAVD 88

Job. No.	ES-0563
Date	02/2023
Field Bk.	_FB

WESTSIDE NON MOTORIZED IMPROVEMENTS
CHANNELIZATION & RRFB INTERSECTIONS 9, 10, & 13

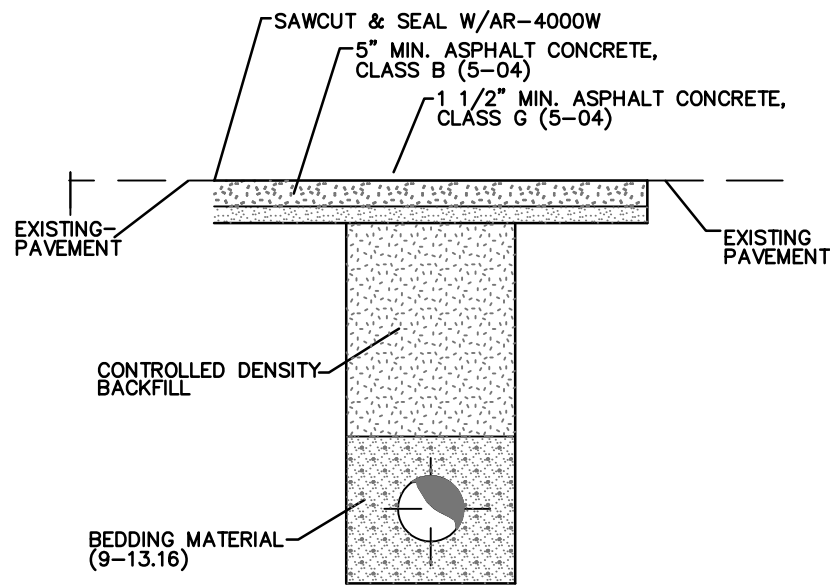
SHEET	OF
31	xx

CONTACT PERSON: , PROJECT ENGINEER AT 778-7900

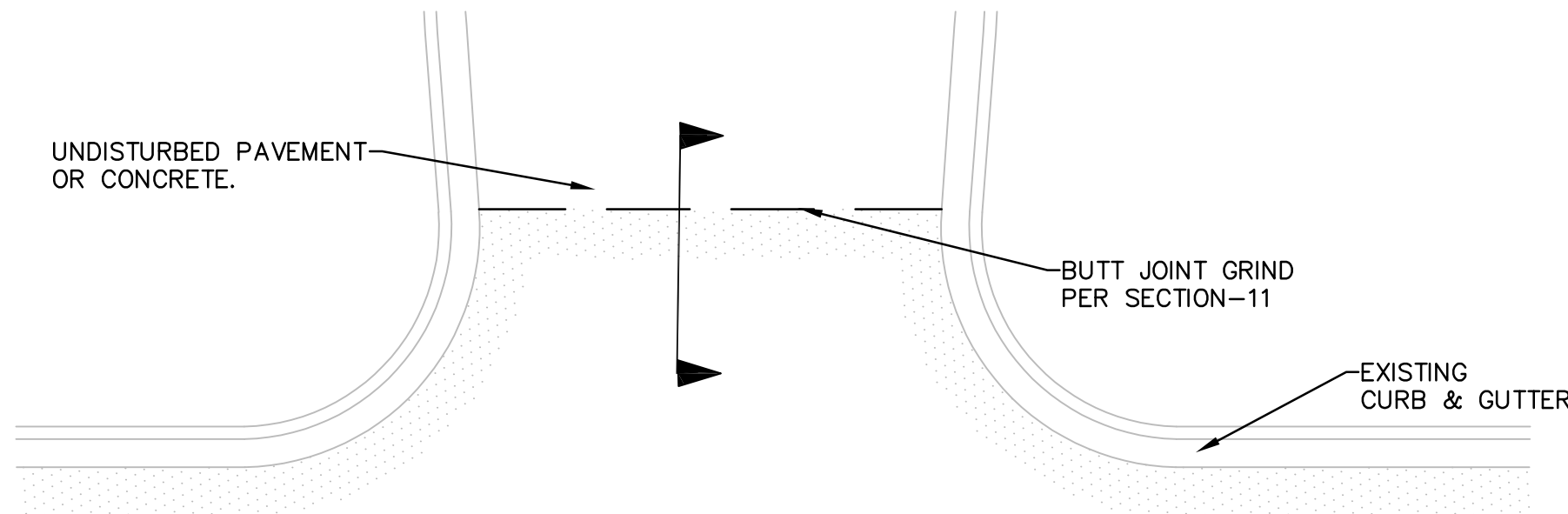


BUTT JOINT FOR OVERLAY GRINDING

NTS



to be completed



TYPICAL BUTT JOINT GRIND AT INTERSECTION

NTS

	4		
	3		
	2	60% review	
	1		
Date	No	Revision	By

PROJECT ENGINEER	JJB
DESIGNED/DRAWN	ELH
INSPECTOR	?

DIRECTOR OF PUBLIC WORKS	E.C.J.
CITY ENGINEER	C.M.A.S.
OPERATIONS ENGINEER	M.A.O.

CITY OF BELLINGHAM, WASHINGTON
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

SCALE
Horiz. 1"= 20'
Vert. 1"= NA

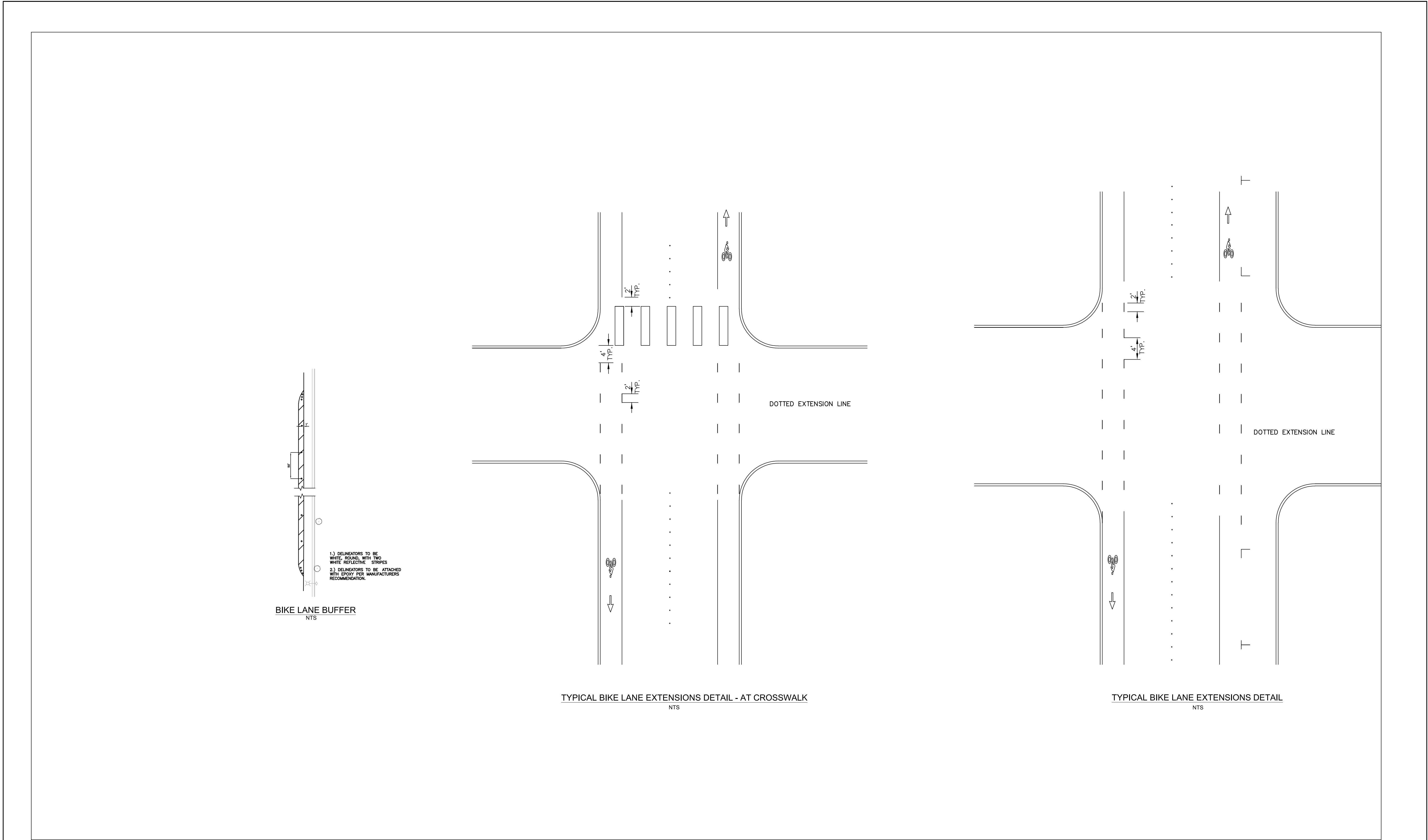
DATUM
NAD 83/98
NAVD 88

Job. No.	ES-0563
Date	02/2023
Field Bk.	FB

WESTSIDE NON MOTORIZED IMPROVEMENTS
PAVING DETAILS

SHEET	OF
32	xx

CONTACT PERSON: , PROJECT ENGINEER AT 778-7900



	4		
	3		
	2	60% review	
	1		
Date	No	Revision	By

PROJECT ENGINEER	JJB
DESIGNED/DRAWN	ELH
INSPECTOR	?

DIRECTOR OF PUBLIC WORKS	E.C.J.
CITY ENGINEER	C.M.A.S.
OPERATIONS ENGINEER	M.A.O.

CITY OF BELLINGHAM, WASHINGTON
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

SCALE
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Vert. 1"= NA

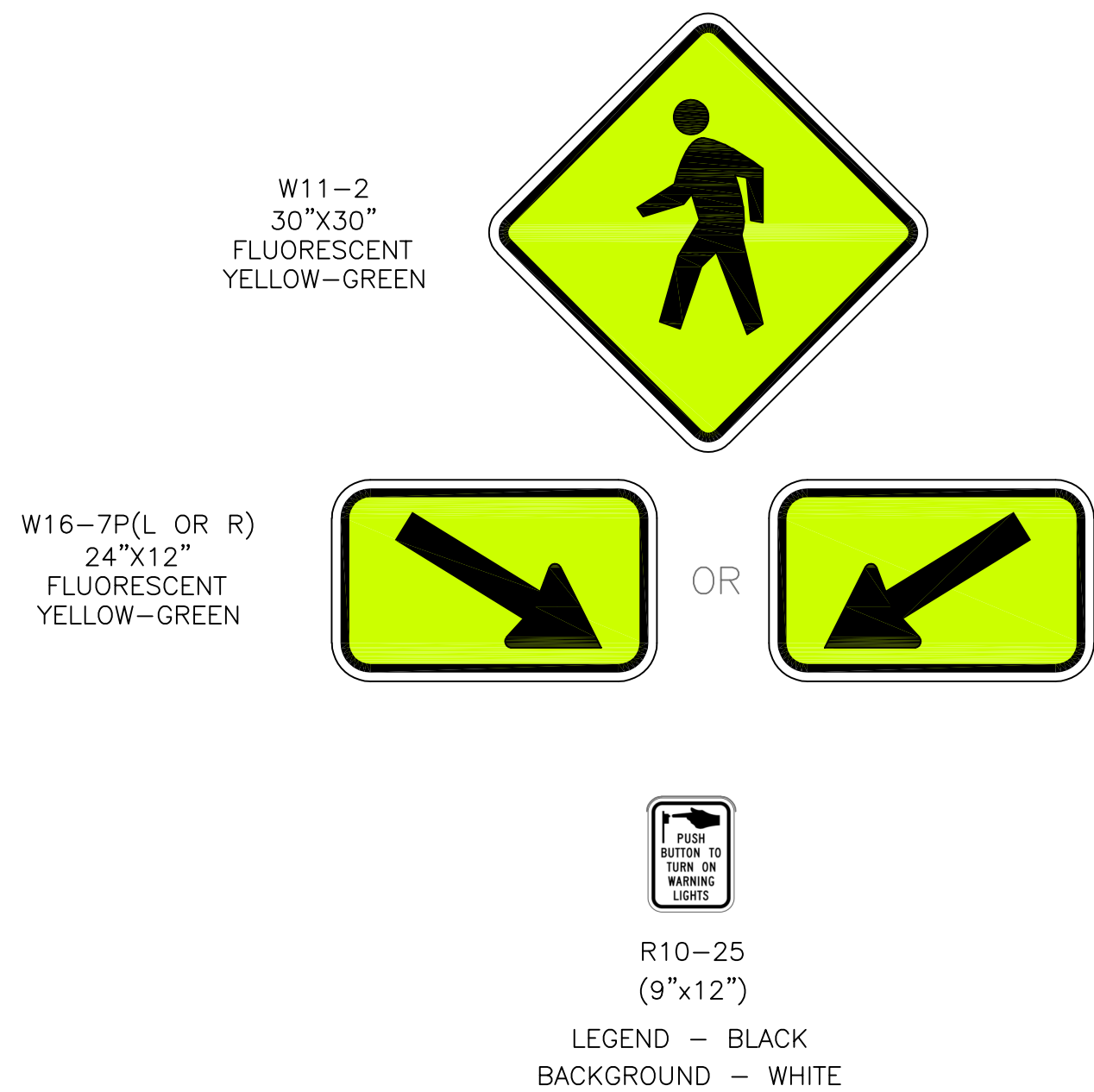
DATUM
NAD 83/98
NAVD 88

Job. No.	ES-0563
Date	02/2023
Field Bk.	FB

WESTSIDE NON MOTORIZED IMPROVEMENTS
CHANNELIZATION DETAILS

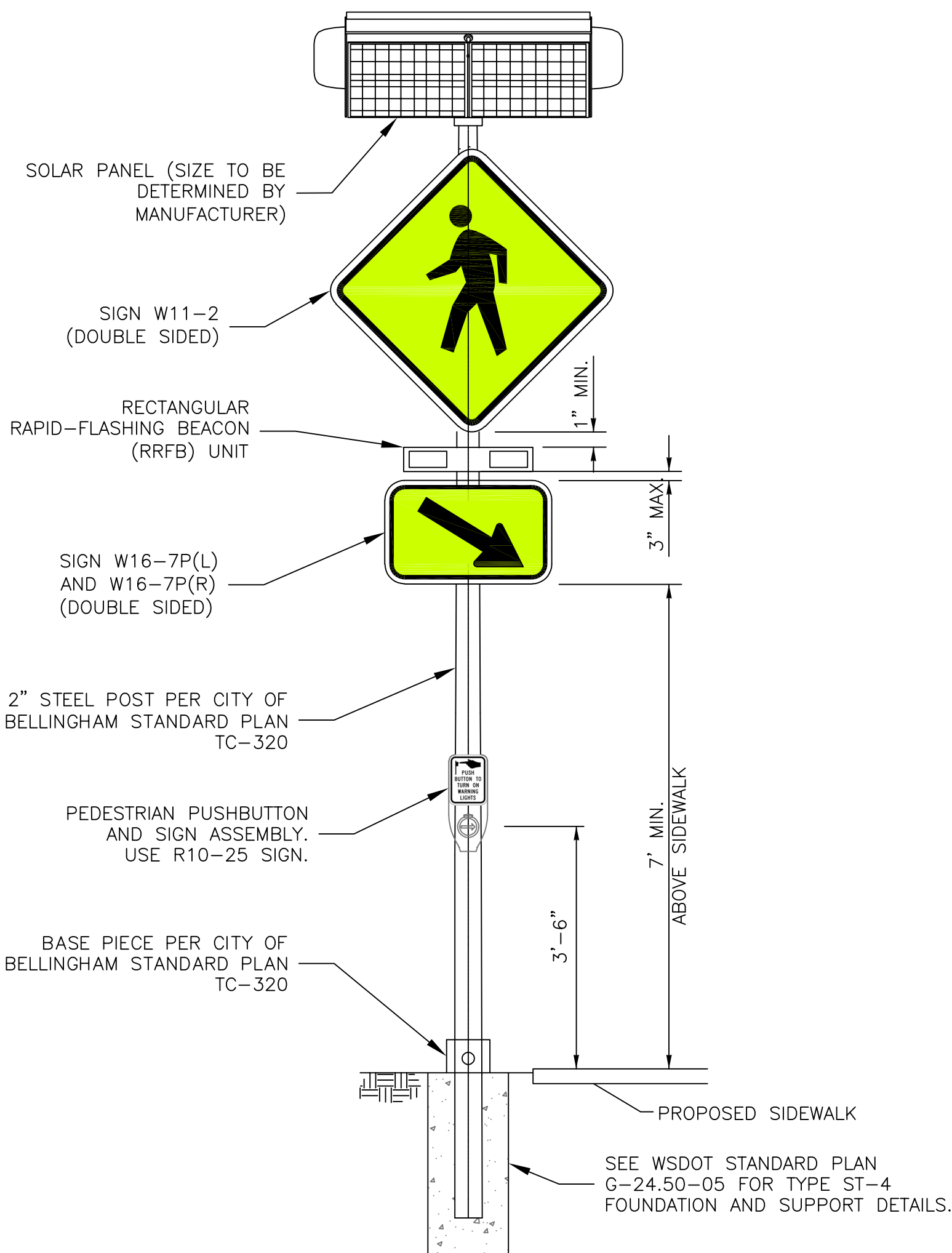
SHEET	OF
33	xx

CONTACT PERSON: , PROJECT ENGINEER AT 778-7900

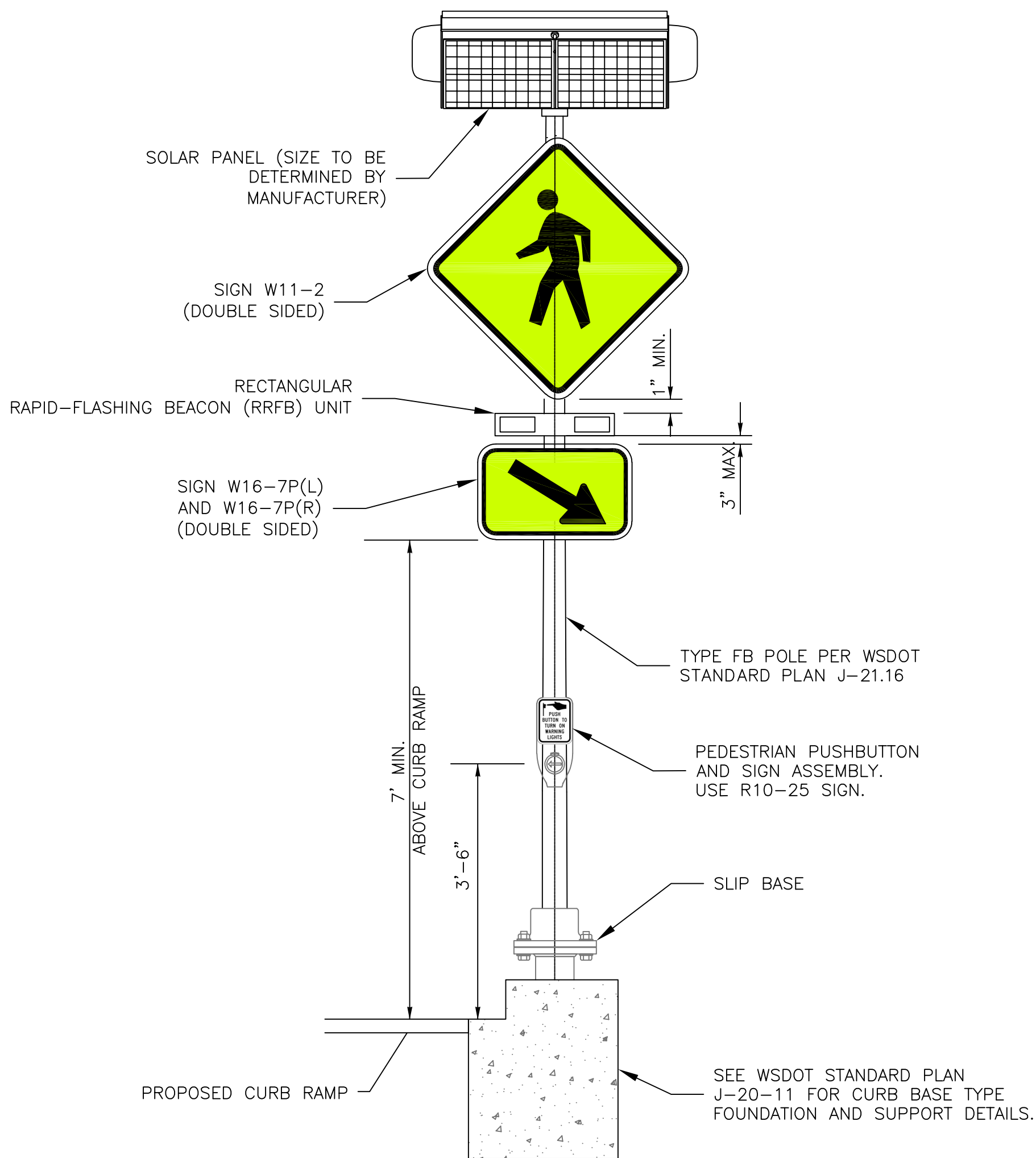


RRFB DETAIL NOTES:

1. RRFB SIGNS, AS SHOWN ON THIS DETAIL AND THE PLANS, SHALL BE PROVIDED BY THE CONTRACTOR.
2. ALL OTHER GROUND-MOUNTED SMALL SIGNS SHALL BE PROVIDED BY THE CITY OF BELLINGHAM.
3. ORIENT SOLAR PANEL PER MANUFACTURER'S RECOMMENDATION.
4. TREE TRIMMING MAY BE REQUIRED FOR OPTIMAL SOLAR PANEL PLACEMENT.
5. PEDESTRIAN PUSHBUTTONS SHALL BE PLACED WITHIN IN 9 INCH REACH FROM CURB RAMP LANDING AREAS, PER ADA ACCESSIBILITY GUIDELINES. THOSE INTENDED FOR BICYCLE USE SHALL BE PLACED 18 INCH REACH FROM FACE OF CURB.
6. THE CONTRACTOR SHALL VERIFY FOUNDATION LOCATIONS ARE FREE OF UTILITY CONFLICTS.
7. WHERE PEDESTRIAN REFUGE PRESENT, INSTALL DOUBLE SIDED RRFB ON REFUGE AND SINGLE SIDED ON EACH SIDE OF THE STREET.
8. ANY PUSHBUTTON SHALL ACTIVATE ALL RRFB'S IN AN INTERSECTION WHEN DUAL CROSSINGS ARE PROVIDED.



TYPICAL INSTALLATION



CURB BASE TYPE INSTALLATION

RECTANGULAR RAPID FLASHING BEACON (RRFB) AND SIGN DETAIL

N.T.S.

	4		
	3		
	2	60% review	
	1		
Date	No	Revision	By

PROJECT ENGINEER JJB
DESIGNED/DRAWN ELH
INSPECTOR ?

DIRECTOR OF PUBLIC WORKS E.C.J.
CITY ENGINEER C.M.A.S.
OPERATIONS ENGINEER M.A.O.

CITY OF BELLINGHAM, WASHINGTON
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

SCALE
Horiz. 1"=20'
Vert. 1"=NA

DATUM
NAD 83/98
NAVD 88

Job. No. ES-0563
Date 02/2023
Field Bk. FB

WESTSIDE NON MOTORIZED IMPROVEMENTS
RRFB DETAILS

SHEET 34 OF xx

CONTACT PERSON: , PROJECT ENGINEER AT 778-7900