

Lowman Beach Park Shoreline Restoration

Parks Specification # 0000 PW # 0000-000 Project # PRK732303-08

Funding Source: Seattle Parks District/Other Funding Source

Owner:

City of Seattle Department of Finance & Administrative Services,
City Purchasing & Contracting Services

Administering Department:

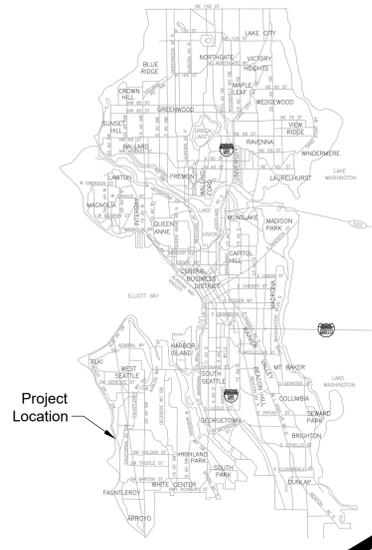
City of Seattle Department of Parks and Recreation, Planning & Development Division
800 Maynard Avenue South, Third Floor, Seattle, WA 98134

Project Manager: David Graves 206-684-7048

Project Design Team:

Environmental Science Associates (Prime), Reid Middleton (Structural).

Primary Contact: Pablo Quiroga 415-262-2305



VICINITY MAP
CITY OF SEATTLE - NOT TO SCALE

Project Address
7017 Beach Drive Southwest
Seattle, WA

LEGAL DESCRIPTION

Lincoln Beach Addition Park Reserve and Tidelands Adjacent



LOCATION MAP
NOT TO SCALE

STANDARD ABBREVIATIONS

Aban	Abandon(ed)	Gal	Gallon	Qty	Quantity
Adj	Adjust	GPM	Gallons Per Minute	R	Radius
ADA	Americans with Disabilities Act	Galv	Galvanized/Galvanized	RR	Railroad
AIC	Aerial Interconnect	GIP	Galvanized Iron Pipe	Rwy	Railway
Al	Aluminum	GSP	Galvanized Steel Pipe	Reconn	Reconnect
AP	Angle Point	GM	Gas Meter	Red	Reducer
Approx	Approximate	G Reg	Gas Regulator	Ref	Refer/Reference
Asph	Asphalt	Gas V	Gas Valve	Reinf	Reinforcing/Reinforcement
ABW	Asphalt Bike Way	Gr	Grade	RCP	Reinforced Concrete Pipe
ATB	Asphalt Treated Base	Gnd	Ground	Reloc	Relocate
ACV	Automatic Control Valve	GP	Guy Pole	Rem	Remove
AVB	Automatic Vacuum Breaker	HH	Handhole	R&R	Remove and Replace
Ave	Avenue	HPS	High Pressure Gas	Repl	Replace
Avg	Average	HPSS	High Pressure Sodium	Req'd	Required
BV	Ball Valve	Horiz	Horizontal	Ret	Retire(d)
BOC	Beginning of Curb	HB	Hose Bib	Rt	Right
BO	Blow Off	HC	Hose Connection	R/W	Right of Way
BF	Bottom Face	Hse	House	RGS	Rigid Galvanized Steel
Br	Brick	Hyd	Hydrant	RS	Rigid Steel
Blkhd	Bulkhead	In	Inch/Inches	Rdwy	Roadway
BFV	Butterfly Valve	Inl	Inlet	RD	Roof Drain
Cb	Cable	ID	Inside Diameter	SB	Sand Box
Cal	Caliper	IE	Invert Elevation	SC	Seattle City Light
CIP	Cast Iron Pipe	Inv	Invert (Line)	SED	Seattle Engineering Dept.
CB	Catch Basin	IP	Iron Pipe	SWD	Seattle Water Department
CL	Center Line	Irrg	Irrigation	SG	Subgrade
C-C	Center to Center	IRC	Irrigation Controller	SD	Service Drain
CLF	Chain Link Fence	Irrg	Irrigation	Sht	Sheet
Ch	Chamber	CI	Class	SS	Side Sewer - Combined
Ch	Chamber	IH	Irrigation Head	SSS	Side Sewer - Sanitary
CO	Clean Out	Jt	Joint	SI	Sleeve
Clr	Clearance	JB	Junction Box	Spes	Spaces
Conc	Concrete	KV	Kilovolt	Spec	Specification(s)
CBW	Concrete Bike Way	LT	Large Inlet Top	SH	Sprinkler Head
CC	Concrete Culvert	LL	Left	Sq	Square
CW	Concrete Walk	LP	Light Pole	Std	Standard
Cond	Condition	LF	Lineal Feet	Stl	Steel
Cd	Conduit	Loc	Location/Locate	Stl P	Steel Pipe
Conn	Connect	MH	Manhole	St	Street
CMP	Corrugated Metal Pipe	MCV	Manual Control Valve	SDS	Street Designation Sign
Cont	Continuous	MDV	Manual Drain Valve	SLHH	Street Light Handhole
Cr	Cross	Max	Maximum	SNS	Street Name Sign
Cu Ft	Cubic Feet	MJ	Mechanical Joint	Struct	Structural/Structure
Cu Yd	Cubic Yard	MVL	Mercury Vapor Light	SL	Survey Line
Culv	Culvert	Misc	Miscellaneous	T	Tee
C&G	Curb and Gutter	ML	Monument Line	Tel	Telephone
CR	Curb Radius	NIC	Not In Contract	TCb	Telephone Cable
Dept	Department	NTS	Not To Scale	TCd	Telephone Conduit
Dia	Diameter	No.	Number	TC	Top of Curb
DB	Direct Burial Cable	OC	On Center	THH	Telephone Handhole
DGV	District Gate Valve	OD	Outside Diameter	TVCb	Television Cable
DCV	Double Check Valve	Pav	Pavement	TVHH	Television Handhole
Dwy	Driveway	PPB	Pedestrian Push Button	Temp	Temporary
DIP	Ductile Iron Pipe	PDP	Perforated Drain Pipe	TH	Testhole
Ea	Each	PS	Pipe Sewer Combined	TF	Top Face
Esmt	Easement	PSS	Pipe Sewer Sanitary	Tr	Traffic
Ecc	Eccentric	PSD	Pipe Storm Drain	TrCb	Traffic Cable
Elec	Electric/Electrical	PSDD	Pipe Storm Drain Detention	TrCd	Traffic Conduit
ECb	Electric Cable	PE	Plain End	TCHH	Traffic Handhole
ECd	Electric Conduit	PL	Plate	TRSB	Traffic Signal Box
ED	Electric Duct	PCC	Point of Compound Curvature	TRSP	Traffic Signal Pole
EMH	Electric Manhole	PC	Point of Curvature	XP	Transmission Pole
EV	Electric Vault	PI	Point of Intersection	Typ	Typical
Ei	Elevation	PRC	Point of Reverse Curve	VCh	Valve Chamber
Elev	Elevation	PT	Point of Tangency	V/Var	Variable
Encl	Enclosure	PVC	Polyvinyl Chloride	Vert	Vertical
EOC	End of Curb	LBS	Pounds	VB	Valve Box
Eq	Equal	PSI	Pounds per Square Inch	V/C	Vertical Curve
Ex	Existing	PP	Power Pole	W	Water
Exp	Expansion	PPL	Power Pole with Light	WM	Water Meter
Ft	Feet	PRV	Pressure Reducing Valve	WCR	Wheel Chair Ramp
FLP	Field Light Pole	PVB	Pressure Vacuum Breaker	w	With
Fig	Figure	PL	Proposed	WP	Wood Pole
FF	Finished Floor	Prop	Proposed	WSP	Wood Stave Pipe
FG	Finish Grade				
FS	Finished Surface (paving)				
FM	Force Main				

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APPROVED FOR ADVERTISING:

Liz Alzeer

City Purchasing & Contracting Services

Seattle, Washington _____ Date _____ 20____

Signature: _____
Director, City Purchasing & Contracting Services

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1		
NO.	REVISION - AS BUILT	DATE

REVIEWED: _____ DATE _____
PARK ENGINEER

All work done in accordance with the City of Seattle Standard Plans and Specifications in effect on the date shown above, and supplemented by Special Provisions.

LOWMAN BEACH PARK

LOWMAN BEACH PARK SHORELINE RESTORATION

TITLE SHEET

DESIGNED PDQ	DATE 01/24/2020
DRAWN HKS, ABG	SHEET 1 OF 36
CHECKED BTB	
ORDINANCE NO. X	G1
SPECIFICATION NO. X	
SCALE AS NOTED	

GENERAL NOTES

GENERAL

- WORK SHALL CONFORM TO ALL LOCAL, STATE AND FEDERAL LAWS AND REGULATIONS AND PERMITS ISSUED FOR THE PROJECT. CONTRACTOR SHALL HAVE A COPY OF ALL PERMITS ONSITE AT ALL TIMES AND COMPLY WITH ALL CONDITIONS STIPULATED IN THE PERMITS.
- ANY DISCREPANCY BETWEEN PERMITS AND DESIGN DRAWINGS SHALL BE IMMEDIATELY REPORTED TO OWNER FOR RESOLUTION PRIOR TO AFFECTED WORK BEING PERFORMED. CONTRACTOR SHALL REVIEW DESIGN DRAWINGS PRIOR TO MOBILIZATION AND SHALL ALLOW ENOUGH TIME FOR ANY IDENTIFIED POTENTIAL PERMIT ISSUES TO BE RESOLVED WITHOUT IMPACTING CONSTRUCTION SCHEDULE.
- THE CONTRACTOR IS RESPONSIBLE FOR PROTECTING ALL EXISTING FACILITIES, RESIDENTIAL STRUCTURES, INFRASTRUCTURE, IMPROVEMENTS, AND VEGETATION NOT PLANNED FOR DEMOLITION OR REMOVAL, AND SHALL REPLACE IN-KIND ANY DAMAGED FACILITIES OR VEGETATION AT ITS OWN EXPENSE AND TO THE OWNER'S SATISFACTION.
- PRIOR TO ANY GROUND DISTURBANCE, CONTRACTOR SHALL LOCATE ALL UNDERGROUND AND OVERHEAD UTILITIES IN ACCORDANCE WITH SPECIFICATIONS AND STATE LAW. UPON LEARNING OF THE EXISTENCE AND/OR LOCATIONS OF ANY UNDERGROUND UTILITIES NOT SHOWN OR SHOWN INACCURATELY ON THE PLANS OR NOT PROPERLY MARKED BY THE UTILITY OWNER, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE UTILITY OWNER AND THE CITY OF SEATTLE BY TELEPHONE AND IN WRITING.
- PROJECT SITE IS GENERALLY LOCATED NEAR THE MARINE ENVIRONMENT, AND PORTIONS OF THE SITE ARE IN THE INTERTIDAL ZONE. TIDAL ACCESSES RESTRICTIONS WILL APPLY DURING CONSTRUCTION, WHICH MAY LIMIT THE CONTRACTOR'S ACCESS TO CERTAIN AREAS DURING A TYPICAL WORKDAY: CONTRACTOR SHALL FAMILIARIZE ITSELF WITH ALL APPLICABLE PERMIT RESTRICTIONS PRIOR TO MOBILIZING.
- CONDITIONS ARE DYNAMIC, AND WORK AREAS ARE SUBJECT TO THE ACTION OF THE FLUCTUATING TIDES, WAVES, BOAT WAKES, AND CURRENTS. CONTRACTOR SHALL BE FAMILIAR WITH MARINE CONDITIONS AND IMPLEMENT CONSTRUCTION TECHNIQUES APPROPRIATE TO CONDUCT AND PROTECT WORK AS REQUIRED.
- CONTRACTOR SHALL HAVE COPIES OF THE APPROVED PLANS, SPECIFICATIONS, AND PERMITS ON SITE AND READILY AVAILABLE AT ALL TIMES.
- ALL CONSTRUCTION WORK AFFECTING AREAS BELOW MHHW MUST BE CONDUCTED DURING THE IN-WATER WORK WINDOW JULY 16TH TO FEBRUARY 15TH.

SURVEY

- PROJECT COORDINATE SYSTEM:
HORIZONTAL DATUM: NORTH AMERICAN DATUM OF 1983 (NAD83) WASHINGTON STATE PLANE NORTH, US SURVEY FEET.
VERTICAL DATUM: NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88), US SURVEY FEET. SUBTRACT 2.34FT FROM NAVD88 ELEVATION DATA TO CONVERT TO MLLW.
- AN EXISTING CONDITIONS GRADE SURFACE WAS DEVELOPED USING THE SURVEY CONDUCTED BY PARKS IN JANUARY 2017 AND ESA DATA POINTS FROM JANUARY 2019.
- SPOT ELEVATIONS WITHIN THE SITE ARE BASED ON GROUND SURVEY CONDUCTED BY PARKS IN JANUARY 2017. ADDITIONAL BEACH PROFILE DATA WAS COLLECTED BY ESA IN JANUARY 2019.
- AERIAL PHOTOGRAPHY PROVIDED BY ESA, 2018: HIGH-RESOLUTION IMAGERY FROM DRONE FOR LOWMAN BEACH PARK PROJECT.
- ALL EXISTING UTILITY LOCATIONS AND DESCRIPTION SHOWN ON DRAWINGS REPRESENT CONDITIONS ENCOUNTERED AT TIME OF SURVEY (PARKS, JANUARY 2017, ESA, JANUARY 2019). SITE CONDITIONS ARE DYNAMIC AND SUBJECT TO CHANGE. CONTRACTOR SHALL CONDUCT SURVEY PRIOR TO CONSTRUCTION TO VERIFY SITE CONDITIONS. CONTRACTOR SHALL PROMPTLY NOTIFY THE PROJECT OWNER OF POTENTIAL CONFLICTS.

ACCESS, STAGING AND ENVIRONMENTAL PROTECTION

- ACCESS TO THE SITE IS ON PUBLIC ROADS. COORDINATE WITH THE CITY OF SEATTLE FOR APPROVED HAUL ROUTES AND TRAFFIC PERMITS AND APPROVALS.
- CONTRACTOR SHALL RESTORE ALL STREET FEATURES IMPACTED BY CONSTRUCTION. FEATURES INCLUDE BUT NOT LIMITED TO PAVEMENT, CURBS, GUTTERS, SIDEWALKS, DRIVEWAYS, SIGNAGE, MAILBOXES, UTILITIES, DITCHES AND SWALES.
- CONTRACTOR SHALL COORDINATE WITH THE CITY OF SEATTLE PRIOR TO MOBILIZING EQUIPMENT. CONTRACTOR SHALL NOT BLOCK ACCESS TO ADJACENT PROPERTIES OR TRAFFIC. CONTRACTOR SHALL SUBMIT AND RECEIVE APPROVAL OF TRAFFIC CONTROL PLAN PRIOR TO START OF CONSTRUCTION.
- CONTRACTOR SHALL CONFINE CONSTRUCTION OPERATION TO WITHIN PERMANENT EASEMENTS, TEMPORARY CONSTRUCTION EASEMENTS, OR PUBLIC RIGHT-OF-WAY ONLY.
- ELIMINATE OR MINIMIZE NON-STORM DISCHARGE FROM THE CONSTRUCTION SITE TO PUGET SOUND AND ALL OTHER WATER BODIES INCLUDING GROUNDWATER.
- ALL MATERIALS THAT COULD CAUSE WATER POLLUTION (I.E., MOTOR OIL, FUELS, PAINTS, ETC.) SHALL BE STORED IN A CLOSED CONTAINER AND USED IN A MANNER THAT WILL NOT CAUSE POLLUTION. ALL DISCARDED MATERIAL AND ANY ACCIDENTAL SPILLS SHALL BE REMOVED FROM THE SITE AND DISPOSED OF AT AN APPROVED DISPOSAL SITE.
- TREAT AND DISPOSE OF REMOVED WATER IN COMPLIANCE WITH ALL PERMITS. AT A MINIMUM, TREAT ALL REMOVED WATER AS NEEDED TO REMOVE SUSPENDED SEDIMENT PRIOR TO ANY DISCHARGE OFFSITE.

DEMOLITION NOTES

- THE CONTRACTOR SHALL VERIFY ALL LEVELS, DIMENSIONS, AND EXISTING CONDITIONS IN THE FIELD PRIOR TO PLACING A BID. THE CONTRACTOR SHALL NOTIFY THE OWNER OF ANY DISCREPANCIES OR FIELD CHANGES PRIOR TO PLACING THEIR BID.
- BEFORE PROCEEDING WITH ANY DEMOLITION WORK, THE CONTRACTOR SHALL SUBMIT A DETAILED WORK PLAN TO THE OWNER'S REPRESENTATIVE, FOR REVIEW AND APPROVAL, AS REQUIRED IN THE SPECIFICATIONS, INCLUDING THE SEQUENCING, TIMING, EQUIPMENT, MEANS AND METHODS, AND LOGISTICS OF OPERATIONS.
- ONSITE CONDITIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR DOCUMENTING THE PRE-CONSTRUCTION STATE OF THE SITE.
- THE EXISTING SEAWALL AND SURROUNDINGS ARE IN A DETERIORATED CONDITION. CONTRACTOR SHALL DETERMINE ANY SAFE LOADING CONDITION RESTRICTIONS APPLICABLE TO DEMOLITION ACTIVITIES BEFORE ALLOWING ANY EQUIPMENT TO BE NEAR THE SEAWALL.
- CONTRACTOR IS REQUIRED TO PROTECT EXISTING NEARBY STRUCTURES FROM DAMAGE DURING DEMOLITION. ALL STRUCTURES TO REMAIN SHALL BE RESTORED TO PRE-PROJECT CONDITIONS UPON COMPLETION OF THE WORK TO THE SATISFACTION OF THE OWNER.
- THE DEPTH OF THE EXISTING ADJACENT RETAINING WALL TO REMAIN IS UNKNOWN. TEMPORARY SHORING MAY BE REQUIRED TO PROVIDE BOTH VERTICAL AND LATERAL SUPPORT FOR THE EXISTING RETAINING WALL DURING CONSTRUCTION OF THE SEAWALL AND NEW RETAINING WALL. THE COST OF THIS TEMPORARY SHORING SHALL BE INCLUDED IN THE CONTRACTORS BID.
- DEMOLITION MATERIALS SHALL BE RECYCLED AT A PERMITTED FACILITY OR DISPOSED OF IN A PERMITTED LANDFILL IN ACCORDANCE WITH THE SPECIFICATIONS.
- BURIED DEBRIS FROM A PREVIOUS SEAWALL IS PRESENT ON SITE. THE CONTRACTOR SHALL REMOVE AND DISPOSE OF THIS DEBRIS.

EROSION CONTROL

- INSTALL A TEMPORARY STABILIZED CONSTRUCTION ENTRANCE TO REMOVE SOIL FROM VEHICLES EXITING THE SITE. PREVENT TRACKING OF SEDIMENT ONTO PUBLIC ROADS, AND SWEEP STREET USED FOR VEHICLE ACCESS TO ENSURE ROADS REMAIN CLEAN.
- CONDUCT GRADING OPERATIONS IN A MANNER THAT CONTROLS WIND BLOWN DIRT AND DUST AND PROTECTS NEIGHBORING PROPERTIES. AT MINIMUM PERFORM WATERING AS NEEDED TO PREVENT VISIBLE DUST FROM LEAVING THE JOB SITE.
- FOLLOWING GRADING, ALL DISTURBED AREAS SHALL BE SEEDED AND STABILIZED AS SHOW ON THE EROSION CONTROL AND LANDSCAPE PLANS.
- APPLY AND MIX SOIL AMENDMENTS AS SPECIFIED BY SPECS.
- ADDITIONAL NOTES ON SHEETS ESC1, ESC2, AND ESC3.

CONSTRUCTION

- THE PROJECT INVOLVES EXCAVATION, TRANSPORT, AND PLACEMENT OF MATERIAL WITHIN THE INTERTIDAL RANGE.
- THE CONTRACTOR IS RESPONSIBLE FOR ALL WATER MANAGEMENT THROUGHOUT CONSTRUCTION, INCLUDING DEWATERING AND DRAINAGE.
- PRIOR TO MOBILIZING MATERIAL AND EQUIPMENT AT THE SITE, CONTRACTOR SHALL SUBMIT A WORK AND ACCESS PLAN, FOR APPROVAL BY THE OWNER'S REPRESENTATIVE. CONTRACTOR SHALL FAMILIARIZE THEMSELVES WITH SITE CHARACTERISTICS, INTENT OF THE WORK, AND ALL APPLICABLE PERMIT CONDITIONS. CONTRACTOR SHALL DOCUMENT THEIR UNDERSTANDING THEREOF IN THE WORK AND ACCESS PLAN.

IRRIGATION

- SEE NOTES ON SHEET L1.

PLANTING

- SEE NOTES ON SHEET L3.

PROJECT BENCHMARK

POINT TABLE				
NUMBER	DESCRIPTION	NORTHING	EASTING	ELEVATION
95	BRASS CAP	209,337.43	1,252,060.77	26.32
97	TACK/LEAD	200,839.77	1,254,103.75	13.31
112	MAG NAIL	200,815.72	1,254,279.25	17.38
118	TACK/LEAD	200,839.82	1,254,103.58	13.31
120	MAG NAIL	200,831.35	1,254,360.21	22.87

NOTES:

- PROJECT BENCHMARK PER SEATTLE PARKS, JANUARY, 2017.
- POINT NUMBER 95 IS NOT SHOWN ON PLANS, LOCATED NEAR INTERSECTION OF SW OREGON ST AND BEACH DRIVE SW.

TIDE DATUM TABLE

STATION 9447130, SEATTLE, WA, EPOCH 1983-2001		
DATUM		EL. NAVD 88, FT
MEAN HIGHER HIGH WATER	MHHW	9.02
MEAN HIGH WATER	MHW	8.15
MEAN TIDE LEVEL	MTL	4.32
MEAN SEA LEVEL	MSL	4.3
MEAN LOW WATER	MLW	0.49
NAVD 88	NAVD88	0.0
MEAN LOWER LOW WATER	MLLW	-2.34

NOTE: TIDAL WATER LEVELS ARE APPROXIMATE AND ARE PROVIDED FOR CONTRACTORS INFORMATION ONLY. ACTUAL WATER LEVELS AT THE TIME OF CONSTRUCTION MAY FLUCTUATE ABOVE AND BELOW THE LEVELS IN THIS TABLE. REFER TO GENERAL NOTES.

KNOWN UTILITIES ON SITE

ITEM	GENERAL LOCATION	WITHIN GRADING LIMITS?	MIN. DEPTH OF COVER BELOW EG	MAX. DEPTH OF COVER BELOW EG	ACTION	SHEET REFERENCE
66" RCP PSD	PARALLEL NORTH PROPERTY LINE, OFFSET APPROX. 15-20' INTO SITE	Y	2'	10'	PIP. POTHOLE TO CONFIRM ALIGNMENT AND ELEVATION. EXCAVATE TO MID-HEIGHT OF PIPE IN VICINITY OF SEAWALL, LEAVE UNCOVERED FOR DURING OF SEAWALL INSTALLATION	D2, C4, S42
18" RCP PSD & CMP OUTFALL SEGMENT	PARALLEL NORTH PROPERTY LINE, OFFSET APPROX. 20-25' INTO SITE	Y	0', OUTLET THROUGH SEAWALL	8'	DEMO PORTIONS AND CAP AS SHOWN ON DEMO SHEETS.	D1, C6
18" PSD (ABANDONED)	EAST OF (E) GRAVEL PATHS, SOUTH OF PLAYGROUND AREA	Y	UNKNOWN	UNKNOWN	PIP. IF PIPE IS EXPOSED DURING GRADING, DEMOLISH AND CAP TO LIMIT OF GRADING. DEPTH OF PIPE UNKNOWN.	D1
6" PERFORATED PVC DRAIN & INLET STRUCTURE	DRAIN FOLLOWS (E) GRAVEL PATH SOUTH AND WEST ARMS. INLET LOCATED BETWEEN (E) TENNIS COURT AND (E) SEAWALL. OUTLET DRAINS THROUGH (E) RETAINING WALL	Y	0', OUTLET THROUGH SEAWALL	1.5'	DEMO INLET STRUCTURE. DEMO PORTION OF DRAIN WITHIN GRADING LIMITS. CAP AND ABANDON.	D1, D2
27" SEWER FORCE MAINS (2)	PARALLEL EAST PROPERTY LINE, OFFSET APPROX. 50' INTO SITE	N	6.5'	9'	PIP. NOTE 10' OFFSET BUFFER FOR GRADING WORK.	D1, D3, C6
72" CSO OVERFLOW DRAIN	PARALLEL SOUTH PROPERTY LINE, OUTSIDE OF GRADING LIMITS.	N	UNKNOWN	UNKNOWN	PIP	G3, D1
VAULTS, DUCTS, OVERFLOWS, AND VALUES - MURRAY CSO CONTROL FACILITY	SOUTHEAST CORNER OF PROPERTY	N	GROUND LEVEL	VARIES	PIP. USE DESIGNATED SITE ACCESS ROUTES AND STAGING AREAS.	G3, D1
UTILITY BOXES	OUTSIDE PROJECT LIMITS NEAR SOUTHWEST CORNER OF SITE.	N	GROUND LEVEL	GROUND LEVEL	PIP. USE DESIGNATED SITE ACCESS ROUTES AND STAGING AREAS	G3, D1

>>>>CAUTION - CALL 811<<<<
UTILITY NOTIFICATION CENTER
BEFORE YOU DIG!

WWW.CALL811.COM

Also, verify all underground utilities not located by the 811 service by using a commercial location service and call SPR Inspection Request Line (206) 684-7034.

3		
2		
1		
NO.	REVISION - AS BUILT	DATE

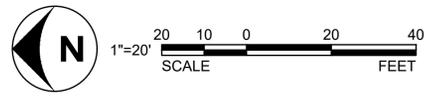
REVIEWED: _____ DATE _____
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LOWMAN BEACH PARK
LOWMAN BEACH PARK
SHORELINE RESTORATION

GENERAL NOTES	
DESIGNED PDQ	DATE 01/24/2020
DRAWN HKS	SHEET 2 OF 36
CHECKED BTB	
ORDINANCE NO. X	G2
SPECIFICATION NO. X	
SCALE AS NOTED	



NOTES:

1. EXISTING GRADE SURFACE BASED ON SURVEY CONDUCTED BY SEATTLE PARKS AND RECREATION (2017) AND ESA DATA (2019). SEE SHEET G2 GENERAL NOTES SURVEY SECTION.
2. PROPERTY LINES SHOWN ARE FOR INFORMATIONAL PURPOSES ONLY.
3. LOCATION OF EXISTING OUTFALL AND PELLY CREEK PIPE IS APPROXIMATE. VERIFY IN THE FIELD.
4. SEE SHEET G2 FOR SITE BENCHMARK COORDINATES.
5. EXTENT OF STORM DRAIN NOT SHOWN. V.I.F.
6. EXISTING IRRIGATION INFRASTRUCTURE SHOWN ON SHEET D3.
7. BENCHMARK POINT TABLE SHOWN ON SHEET G2

SUBSURFACE INFRASTRUCTURE ASSOCIATED WITH MURRAY CSO CONTROL FACILITY (EAST), TYP. PIP

PROPERTY LINE (NOTE 2)

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ABBREVIATIONS:

PIP	PROTECT IN PLACE
VIF	VERIFY IN FIELD
TYP	TYPICAL
OHWM	ORDINARY HIGH WATER MARK
MHHW	MEAN HIGHER HIGH WATER
RCP	REINFORCED CONCRETE PIPE
PSS	PIP SANITARY SEWER
CSO	COMBINED SEWER DIVERSION

LEGEND:

	PROPERTY LINE
	PROJECT LIMITS
	(E) CONTOUR, MAJOR
	(E) CONTOUR, MINOR
	OHWM
	MHHW
	(E) FENCE
	(E) 66" PIPE
	PELLY CREEK 18"
	(E) GRAVEL PATH
	(E) ASPHALT
	PUBLIC SIGN
	BENCHMARK

3		
2		
1		
NO.	REVISION - AS BUILT	DATE

REVIEWED: _____ DATE _____
PARK ENGINEER

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REGISTERED PROFESSIONAL ENGINEER
42109

Seattle Parks & Recreation

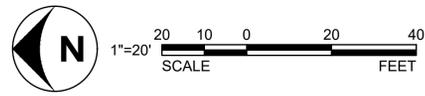
LOWMAN BEACH PARK

LOWMAN BEACH PARK SHORELINE RESTORATION

EXISTING CONDITIONS

DESIGNED PDQ	DATE 01/24/2020
DRAWN HKS	SHEET 3 OF 36
CHECKED BTB	
ORDINANCE NO. X	G3
SPECIFICATION NO. X	
SCALE AS NOTED	

PLOT DATE: 1/30/2020 7:22:52 PM PLOTTED BY: PABLO QUIROGA FILE NAME: \\sfb-fie01\PROJECTS\SEA\16xxxx\160292.dwg Lowman Beach Park\08_CADD\wg1\G3_EXISTING_CONDITIONS.dwg



NOTES:

1. CONTRACTORS ACCESS SHALL BE LIMITED TO CONSTRUCTION ACCESS, STAGING PREP, AND PROJECT LIMITS SHOWN ON THIS PLAN OR APPROVED BY OWNER. BEACH DRIVE SW ALLEY IS THE ONLY ACCESS ROAD TO THE SITE.
2. USE OF (E) BEACH FOR STAGING AND CONSTRUCTION ACTIVITIES IS PROHIBITED OUTSIDE OF GRADING LIMITS.
3. PRIMARY STAGING AREA TO BE USED DURING DEMOLITION AND SEAWALL CONSTRUCTION.
4. SECONDARY STAGING AREA TO BE USED DURING GRADING, PELLY CREEK DAYLIGHTING, AND BEACH PLACEMENT.
5. REBUILD GRAVEL PATH IF DAMAGED.
6. CONTRACTOR'S ATTENTION IS DIRECTED TOWARD BURIED SEWER LINES (SEE SHEETS G2-G3) LOCATED BELOW ACCESS AREAS: CONTRACTOR SHALL PROTECT BURIED PIPELINES FROM CONSTRUCTION LOADS BY INSTALLING LOAD-SPREADING SURFACE TREATMENTS, LIMITING LOADS OR OTHER MEANS APPROVED BY CLIENT REPRESENTATIVE.
7. ENFORCE APPLICABLE BMP'S AT ALL TIMES. SEE SPECIFICATIONS.
8. PROTECT (E) IRRIGATION NETWORK PRIOR TO DEMOLITION. SEE SHEET D3 FOR IRRIGATION NETWORK DEMOLITION.



**>>>>CAUTION - CALL 811<<<<
UTILITY NOTIFICATION CENTER
BEFORE YOU DIG!**

WWW.CALL811.COM

Also, verify all underground utilities not located by the 811 service by using a commercial location service and call SPR Inspection Request Line (206) 684-7034.

ABBREVIATIONS:

PIP	PROTECT IN PLACE
(E)	EXISTING
FT	FEET
BMPs	BEST MANAGEMENT PRACTICES

LEGEND:

	PROPERTY LINE
	PROJECT LIMITS
	(E) FENCE
	(E) GRAVEL PATH
	(E) ASPHALT
	ACCESS ROUTE
	STAGING
	GRADING LIMIT
	STABILIZED CONSTRUCTION ENTRANCE

3		
2		
1		
NO.	REVISION - AS BUILT	DATE

REVIEWED: _____ DATE _____
PARK ENGINEER

All work done in accordance with the City of Seattle Standard Plans and Specifications in effect on the date shown above, and supplemented by Special Provisions.

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LOWMAN BEACH PARK

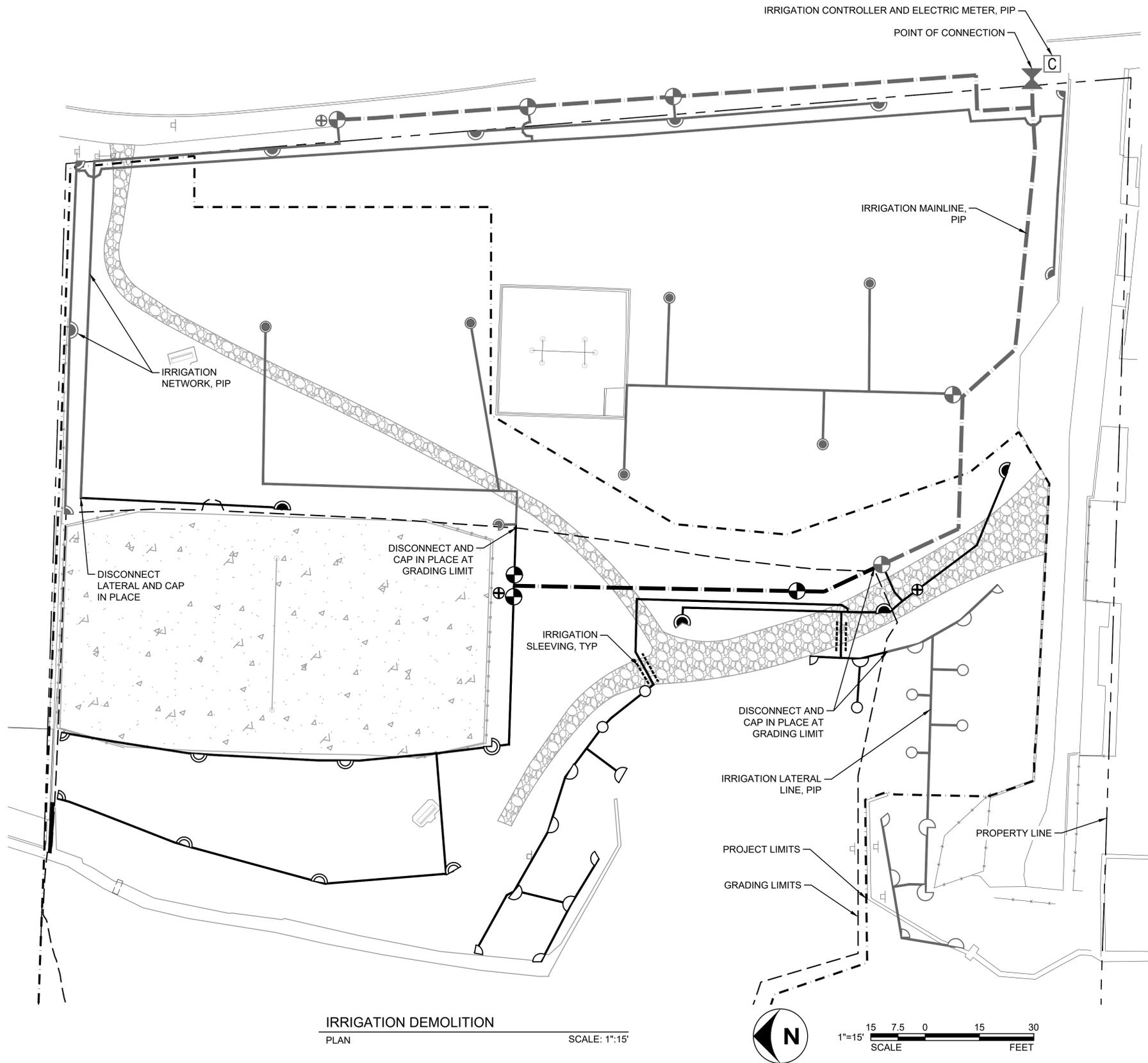
**LOWMAN BEACH PARK
SHORELINE RESTORATION**

SITE ACCESS & STAGING

DESIGNED PDQ	DATE 01/24/2020
DRAWN HKS	SHEET 4 OF 36
CHECKED BTB	G4
ORDINANCE NO. X	
SPECIFICATION NO. X	
SCALE AS NOTED	

PLOT DATE: 1/30/2020 7:23:13 PM PLOTTED BY: PABLO QUIROGA FILE NAME: \\sfb-fie01\projects\SEA\16xxxx\160292.dwg Lowman Beach Park\08_CADD\dwg\G4 SITE ACCESS & STAGING.dwg

PLOT DATE: 1/30/2020 7:24:14 PM PLOTTED BY: PABLO QUIROGA FILE NAME: \\sfb-fie01\PROJECTS\SEA\16xxxx\160292.dwg LOWMAN BEACH PARK\08_CADD\dwg\1D3_IRRIGATION DEMOLITION.dwg



IRRIGATION DEMOLITION
PLAN SCALE: 1"=15'

NOTES:

1. IRRIGATION NETWORK BASED ON CITY OF SEATTLE DEPT. OF PARKS AND REC. RECORD DRAWING DATED 8/5/96. ORIGINAL AS BUILT DRAWING PRODUCED BY OHNO CONSTRUCTION 6/9/95.
2. CONTRACTOR SHALL SELECTIVELY DEMO PORTIONS OF EX. IRR SYSTEM AS SHOWN. ORPHANED SECTIONS PROTECTED IN PLACE SHALL BE RECONNECTED AFTER GRADING IS COMPLETE.

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WWW.CALL811.COM

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ABBREVIATIONS:

IRR. PIP IRRIGATION PROTECT IN PLACE

LEGEND:

- PROPERTY LINE
- - - PROJECT LIMITS
- - - GRADING LIMIT
- ==== IRR. MAINLINE (PIP)
- ==== IRR. LATERAL LINE (PIP)
- ==== IRR. MAINLINE (DEMO)
- ==== IRR. LATERAL LINE (DEMO)
- [C] CONTROLLER
- ⊗ POINT OF CONNECTION
- ⊕ CONTROL VALVE
- ⊕ QUICK COUPLING VALVE
- ⊕ TORO 640 SERIES ROTORS
- ⊕ TORO 300 SERIES ROTORS
- ⊕ RAINBIRD SPRINKLERS

3		
2		
1		
NO.	REVISION - AS BUILT	DATE

REVIEWED: _____ DATE _____
PARK ENGINEER

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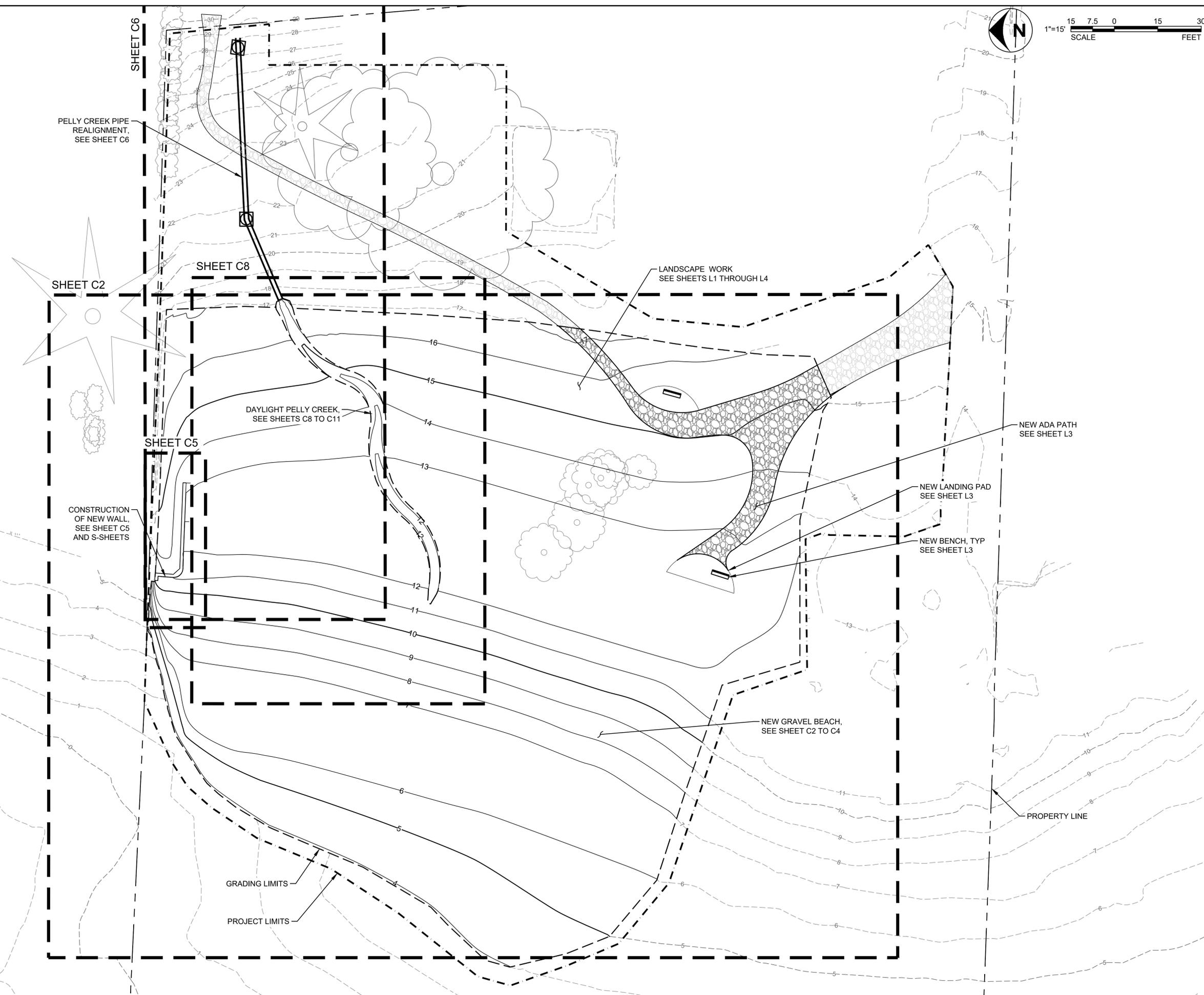
LOWMAN BEACH PARK

LOWMAN BEACH PARK SHORELINE RESTORATION

IRRIGATION DEMOLITION

DESIGNED ABG	DATE 01/24/2020
DRAWN MFN	
CHECKED TLJ	SHEET 7 OF 36
ORDINANCE NO. X	D3
SPECIFICATION NO. X	
SCALE AS NOTED	

PLOT DATE: 1/30/2020 7:24:31 PM PLOTTED BY: PABLO QUIROGA FILE NAME: \\sfb-fieo\p\PROJECTS\SEA\16xxxx\1602922.00 Lowman Beach Park\08_CADD\dwg\CT_OVERALL DESIGN PLAN.dwg



>>>>CAUTION - CALL 811<<<<
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BEFORE YOU DIG!
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 Also, verify all underground utilities not located by the 811 service by using a commercial location service and call SPR Inspection Request Line (206) 684-7034.

NOTES:

ABBREVIATIONS:
 TYP TYPICAL

- LEGEND:
- PROPERTY LINE
 - - - PROJECT LIMITS
 - 10 (E) CONTOUR, MAJOR
 - 10 (E) CONTOUR, MINOR
 - 10 (N) CONTOUR, MAJOR
 - 10 (N) CONTOUR, MINOR
 - - - GRADING LIMITS
 - - - SHEET MATCHLINE
 - == (N) PELLY CREEK PIPE
 - [Pattern] (E) GRAVEL PATH
 - [Pattern] (N) GRAVEL PATH
 - [Pattern] (N) GRAVEL BEACH

3		
2		
1		
NO.	REVISION	DATE
	AS BUILT	

REVIEWED: _____ DATE _____
 PARK ENGINEER

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LOWMAN BEACH PARK
LOWMAN BEACH PARK
SHORELINE RESTORATION
OVERALL DESIGN PLAN

DESIGNED PDQ	DATE 01/24/2020
DRAWN HKS	SHEET 8 OF 36
CHECKED BTB	
ORDINANCE NO. X	C1
SPECIFICATION NO. X	
SCALE AS NOTED	

>>>>CAUTION - CALL 811<<<<
UTILITY NOTIFICATION CENTER
BEFORE YOU DIG!
WWW.CALL811.COM

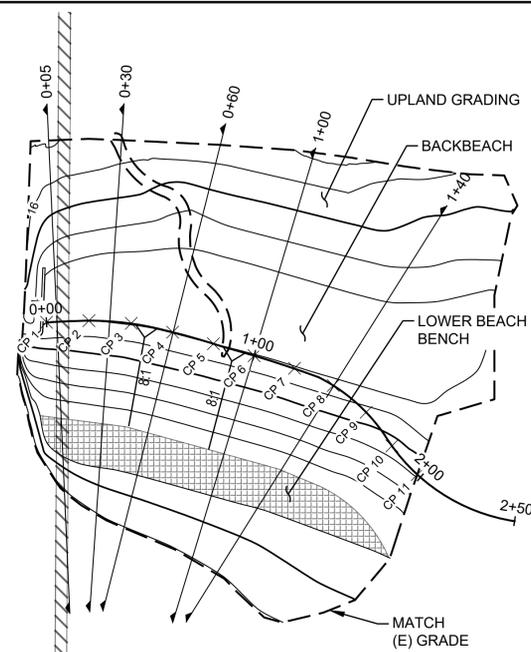
Also, verify all underground utilities not located by the 811 service by using a commercial location service and call SPR Inspection Request Line (206) 684-7034.

ABBREVIATIONS:

MHHW	MEAN HIGHER HIGH WATER
(N)	NEW
(E)	EXISTING
FT	FEET
TYP	TYPICAL
RCP	REINFORCE CONCRETE PIPE
PIP	PROTECT IN PLACE
PSD	PUBLIC STORM DRAIN
EL	ELEVATION

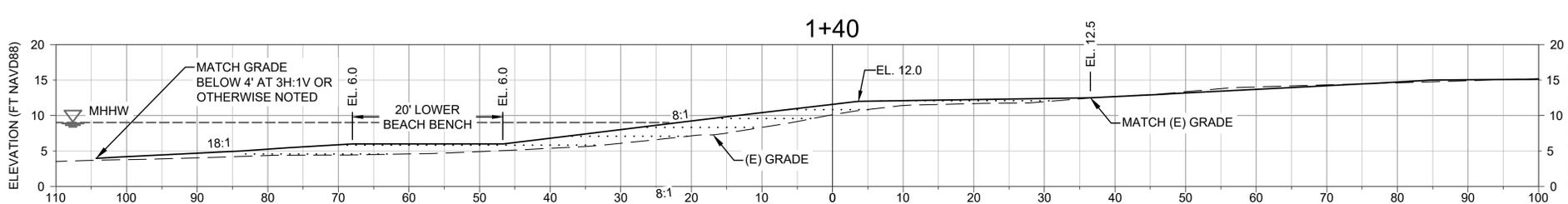
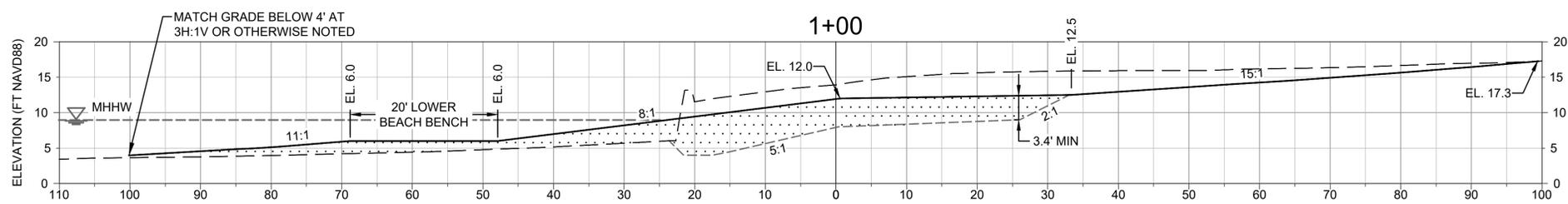
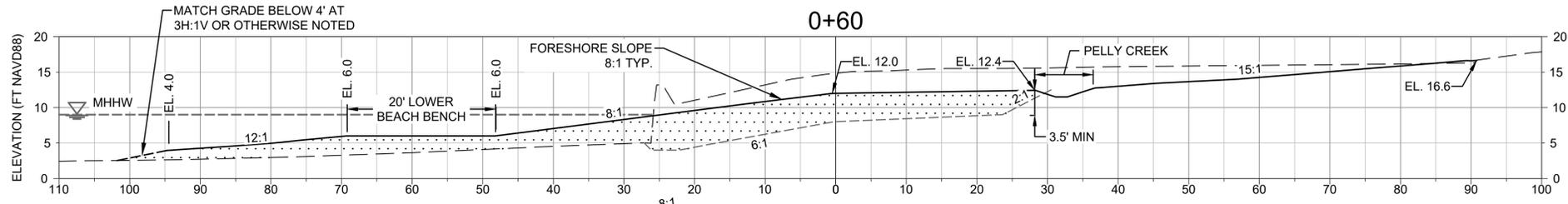
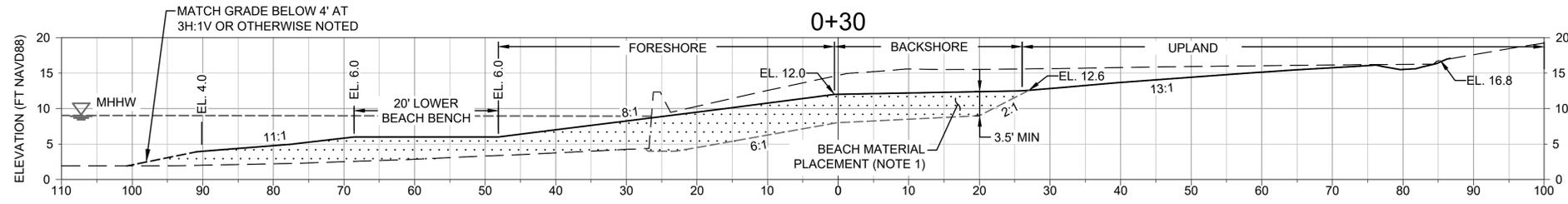
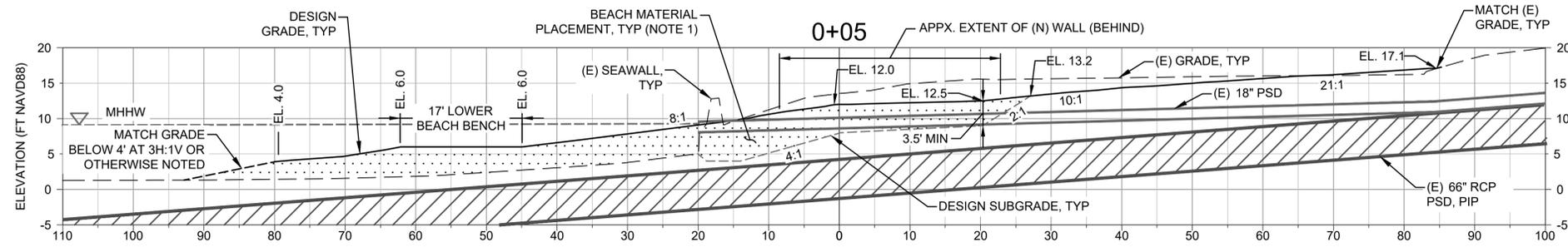
LEGEND:

	WATER SURFACE EL.
	(E) GRADE, SECTION
	(N) GRADE, SECTION
	(N) SUBGRADE
	BEACH FILL
	66" RCP PSD



SECTION LAYOUT
 PLAN VIEW SCALE: 1" = 40'

CONTROL POINT TABLE				
NUMBER	DESCRIPTION	NORTHING	EASTING	ELEVATION
1	CP 1	201,094.73	1,254,145.70	13.72
2	CP 2	201,074.75	1,254,146.48	11.99
3	CP 3	201,054.77	1,254,145.23	12.01
4	CP 4	201,035.24	1,254,141.08	12.01
5	CP 5	201,015.99	1,254,135.63	12.00
6	CP 6	200,996.80	1,254,130.03	11.92
7	CP 7	200,977.73	1,254,124.11	11.89
8	CP 8	200,959.47	1,254,116.02	11.58
9	CP 9	200,943.97	1,254,103.46	10.67
10	CP 10	200,931.79	1,254,087.64	9.55
11	CP 11	200,919.81	1,254,074.22	9.13



BEACH GRADING SECTIONS
 SECTIONS SCALE: 1" = 10'

- NOTES:**
- EXCAVATE TO DESIGN SUBGRADE BEFORE PLACING BEACH SEDIMENT.
 - STOCKPILE SALVAGEABLE GRAVEL MATERIAL FOR REUSE. STOCKPILE SHALL BE CLEANED OF SEDIMENT AND DEBRIS PRIOR TO REUSE, PER SPECIFICATIONS.
 - HORIZONTAL PLACEMENT CONTROL OF NEW BEACH GRADING SHOWN ON TABLE.
 - CONTRACTOR SHALL PLACE BEACH MATERIAL AS SHOWN ON THE SECTIONS ON THIS SHEET AND SHEET C4.

3		
2		
1		
NO.	REVISION - AS BUILT	DATE

REVIEWED: _____ DATE _____
 PARK ENGINEER

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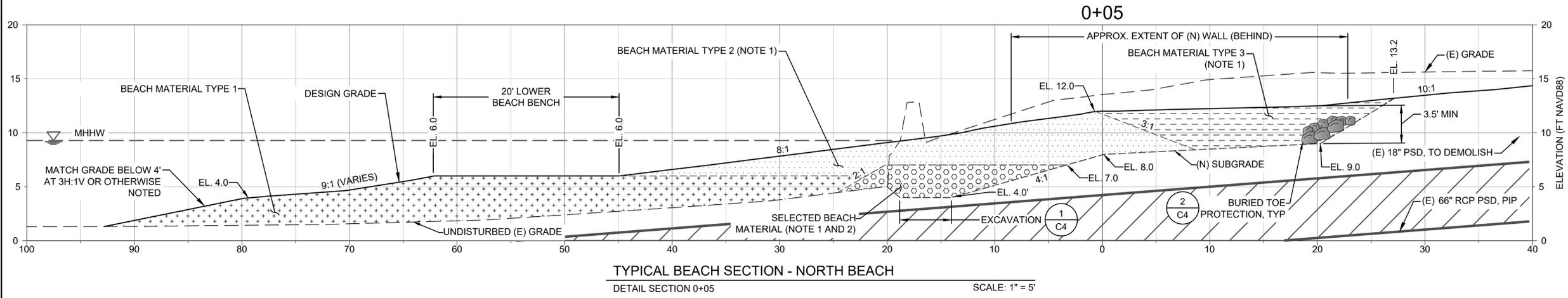


LOWMAN BEACH PARK
LOWMAN BEACH PARK SHORELINE RESTORATION
BEACH GRADING SECTIONS

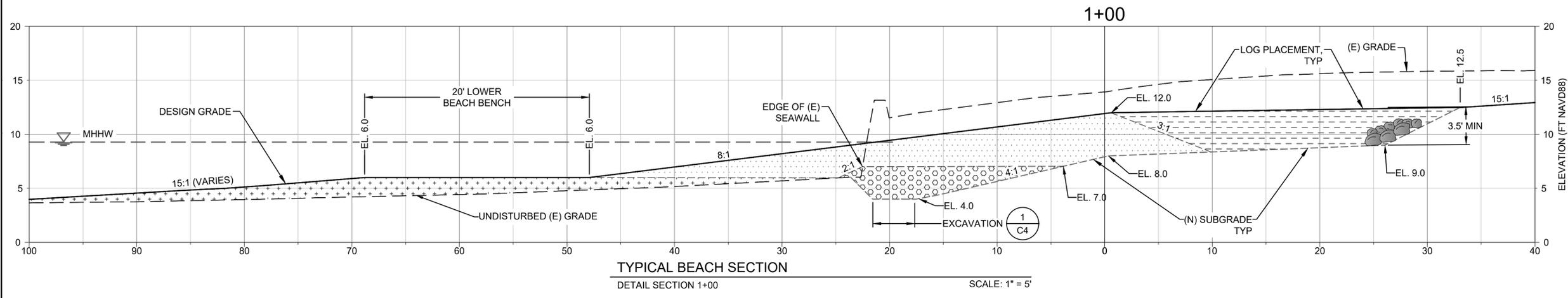
DESIGNED PDQ	DATE 01/24/2020
DRAWN HKS	SHEET 10 OF 36
CHECKED BTB	
ORDINANCE NO. X	C3
SPECIFICATION NO. X	
SCALE AS NOTED	

PLOT DATE: 1/20/2020 7:25:14 PM PLOTTED BY: PABLO QUIROGA FILE NAME: \\sfb-fie01\PROJECTS\SEA\160000\1\Lowman Beach Park\08_CADD\grd\C3 BEACH GRADING SECTIONS.dwg

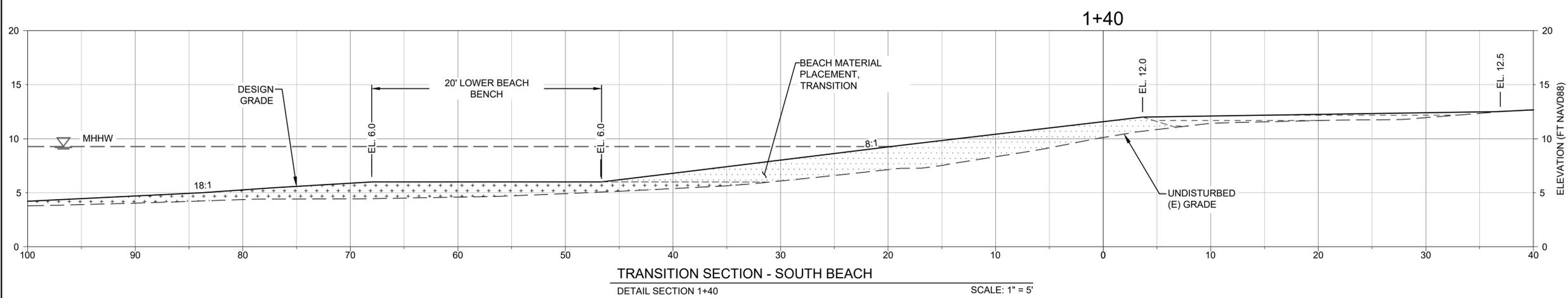
PLOT DATE: 1/30/2020 7:25:28 PM PLOTTED BY: PABLO QUIROGA FILE NAME: \\sfb-fie01\PROJECTS\SEA1\60000\1\Lowman Beach Park\08_CADD\wg\c4_Beach Grading Details.dwg



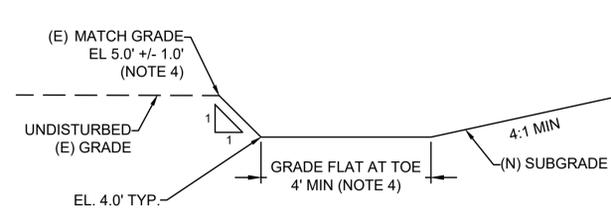
TYPICAL BEACH SECTION - NORTH BEACH
DETAIL SECTION 0+05 SCALE: 1" = 5'



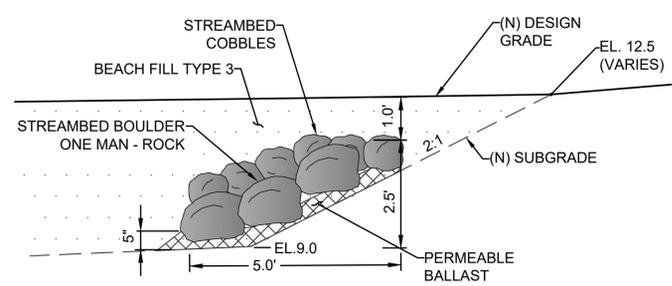
TYPICAL BEACH SECTION
DETAIL SECTION 1+00 SCALE: 1" = 5'



TRANSITION SECTION - SOUTH BEACH
DETAIL SECTION 1+40 SCALE: 1" = 5'



EXCAVATION DETAIL
DETAIL SCALE: 1" = 2'



BURIED TOE PROTECTION DETAIL
DETAIL SCALE: 1" = 2'

- NOTES:**
- EXCAVATE TO DESIGN SUBGRADE BEFORE PLACING BEACH SEDIMENT.
 - STOCKPILE SALVAGEABLE GRAVEL MATERIAL FOR REUSE. STOCKPILE SHALL BE CLEANED OF FINE SEDIMENT AND DEBRIS PRIOR TO REUSE, PER SPECIFICATIONS.
 - CONTRACTOR SHALL PLACE BEACH NOURISHMENT MATERIAL AS SHOWN ON THE SECTIONS ON THIS SHEET AND SHEET C3.
 - FOR EXCAVATION AT TOE OF EXISTING SEAWALL, IF EXISTING GRADE IS HIGHER THAN 4.0', CATCH GRADE ON 1:1 SLOPE OR FLATTER.

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UTILITY NOTIFICATION CENTER
BEFORE YOU DIG!
WWW.CALL811.COM
Also, verify all underground utilities not located by the 811 service by using a commercial location service and call SPR Inspection Request Line (206) 684-7034.

ABBREVIATIONS:

MHHW	MEAN HIGHER HIGH WATER
(E)	EXISTING
FT	FEET
(N)	NEW
TYP	TYPICAL
PIP	PROTECT IN PLACE
RCP	REINFORCED CONCRETE PIPE
PSD	PUBLIC STORM DRAIN
EL	ELEVATION

LEGEND:

	WATER SURFACE EL.
	(E) GRADE, SECTION
	(N) GRADE, SECTION
	(N) SUBGRADE
	BEACH FILL TYPE 1
	BEACH FILL TYPE 2
	BEACH FILL TYPE 3
	RECLAIMED MATERIAL
	PERMEABLE BALLAST
	66" RCP PSD (SECTION)

NO.	REVISION	AS BUILT	DATE
3			
2			
1			

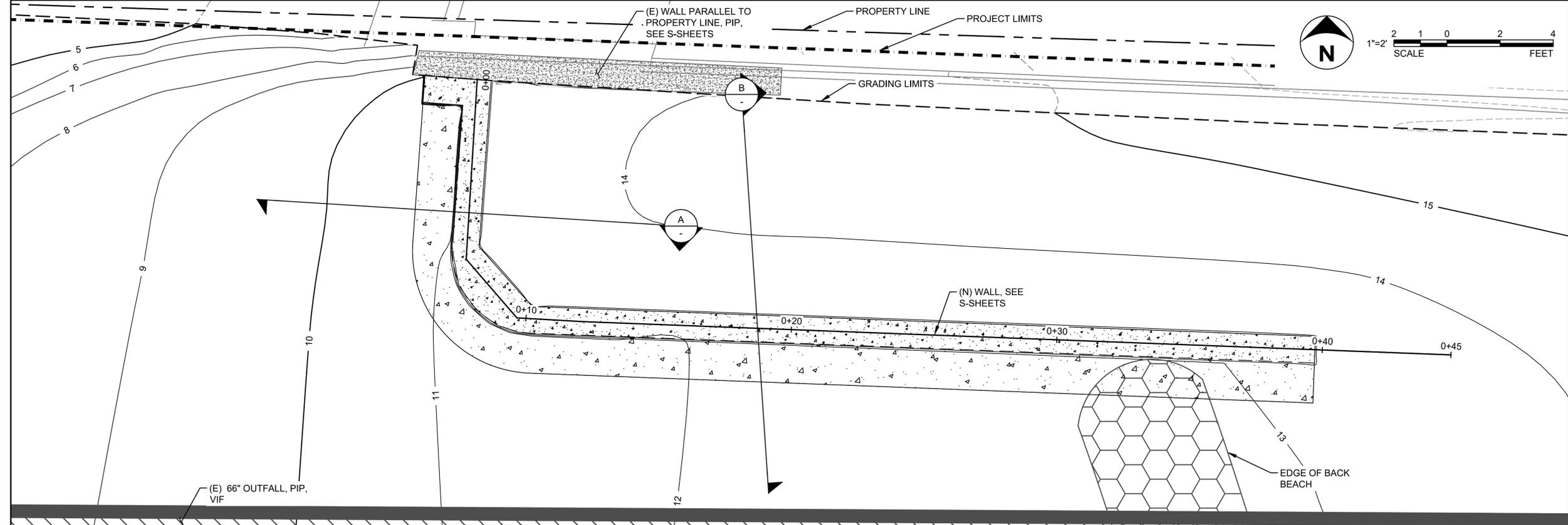
REVIEWED: _____ DATE _____
PARK ENGINEER

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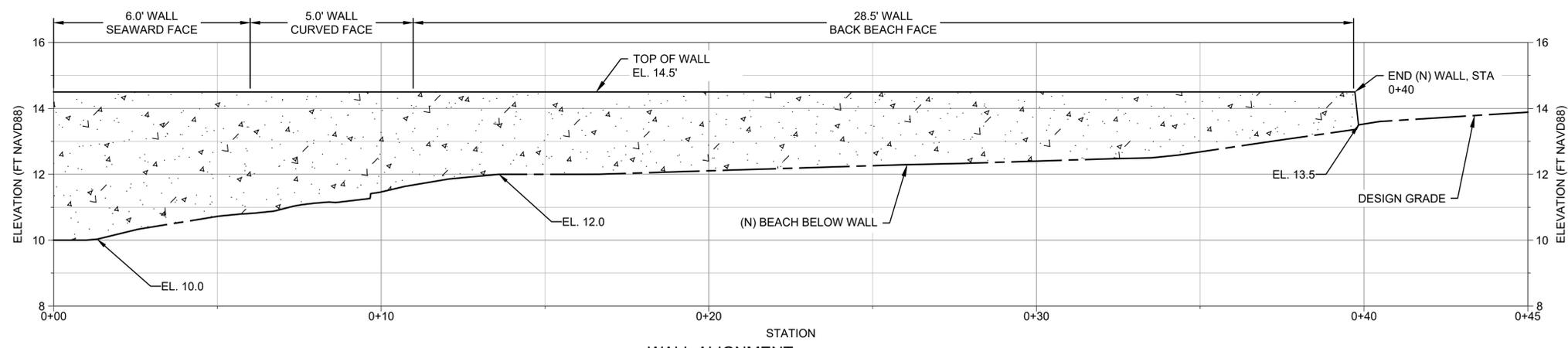
ESA 5309 SHILSHOLE AVE. NW, STE. 200 SEATTLE, WA 98107 OFFICE - 206.789.9658 WWW.ESASSOC.COM



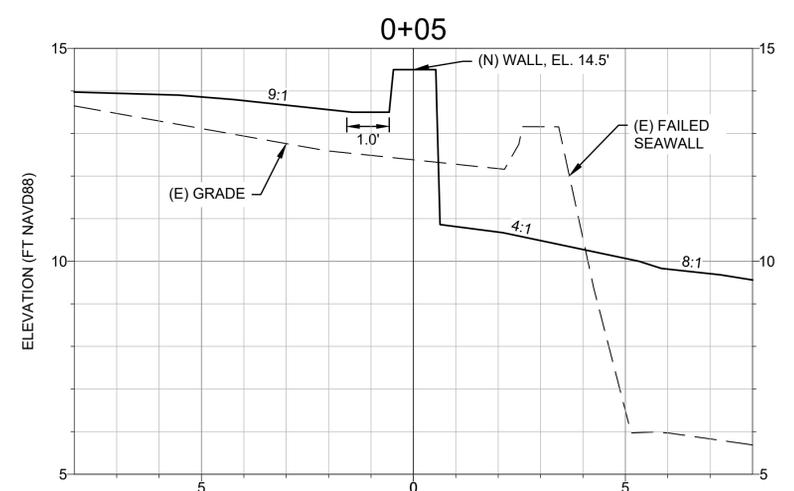
LOWMAN BEACH PARK	
LOWMAN BEACH PARK SHORELINE RESTORATION	
BEACH GRADING DETAILS	
DESIGNED PDQ	DATE 01/24/2020
DRAWN HKS	SHEET 11 OF 36
CHECKED BTB	
ORDINANCE NO. X	C4
SPECIFICATION NO. X	
SCALE AS NOTED	



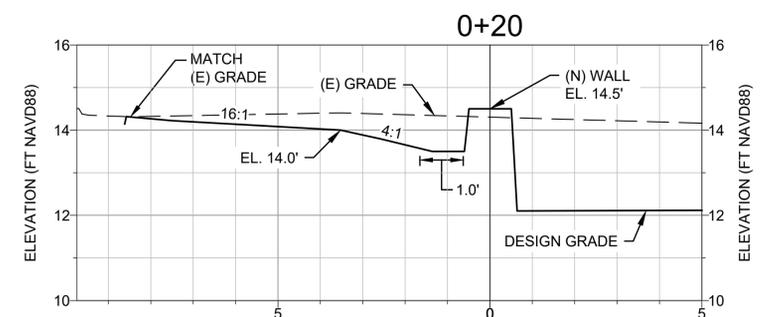
WALL GRADING PLAN
 DETAIL PLAN VIEW SCALE: 1" = 2'



WALL ALIGNMENT
 PROFILE SCALE: 1" = 2'



A WALL - SEAWARD FACE
 TYPICAL SECTION SCALE: 1" = 2'



B WALL - BEACH FACE
 TYPICAL SECTION SCALE: 1" = 2'

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ABBREVIATIONS:

PIP	PROTECT IN PLACE
(E)	EXISTING
FT	FEET
(N)	NEW
TYP	TYPICAL

LEGEND:

---	PROPERTY LINE
---	PROJECT LIMITS
---	(E) CONTOUR, MAJOR
---	(E) CONTOUR, MINOR
---	(N) CONTOUR, MAJOR
---	(N) CONTOUR, MINOR
---	GRADING LIMITS
---	(E) 66" PIPE
---	(N) BEACH BELOW SEAWALL (SECTION)
---	DESIGN GRADE (SECTION)
---	CONCRETE
---	BURIED TOE PROTECTION

NO.	REVISION	AS BUILT	DATE
3			
2			
1			

REVIEWED: _____ DATE _____
 PARK ENGINEER

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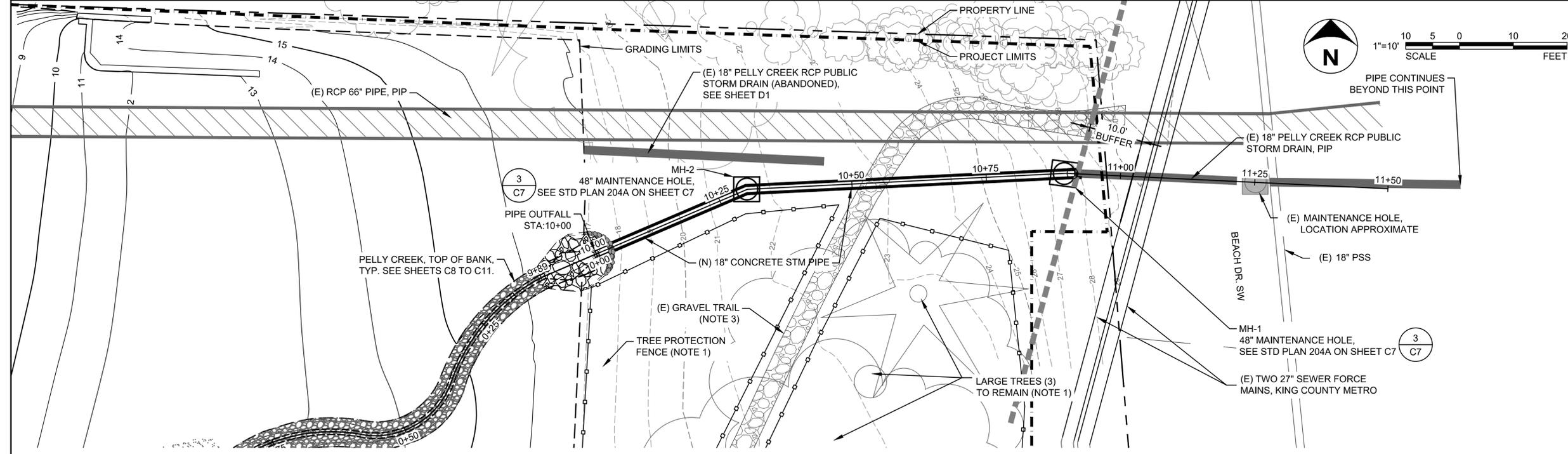
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LOWMAN BEACH PARK
LOWMAN BEACH PARK SHORELINE RESTORATION
WALL GRADING PLAN

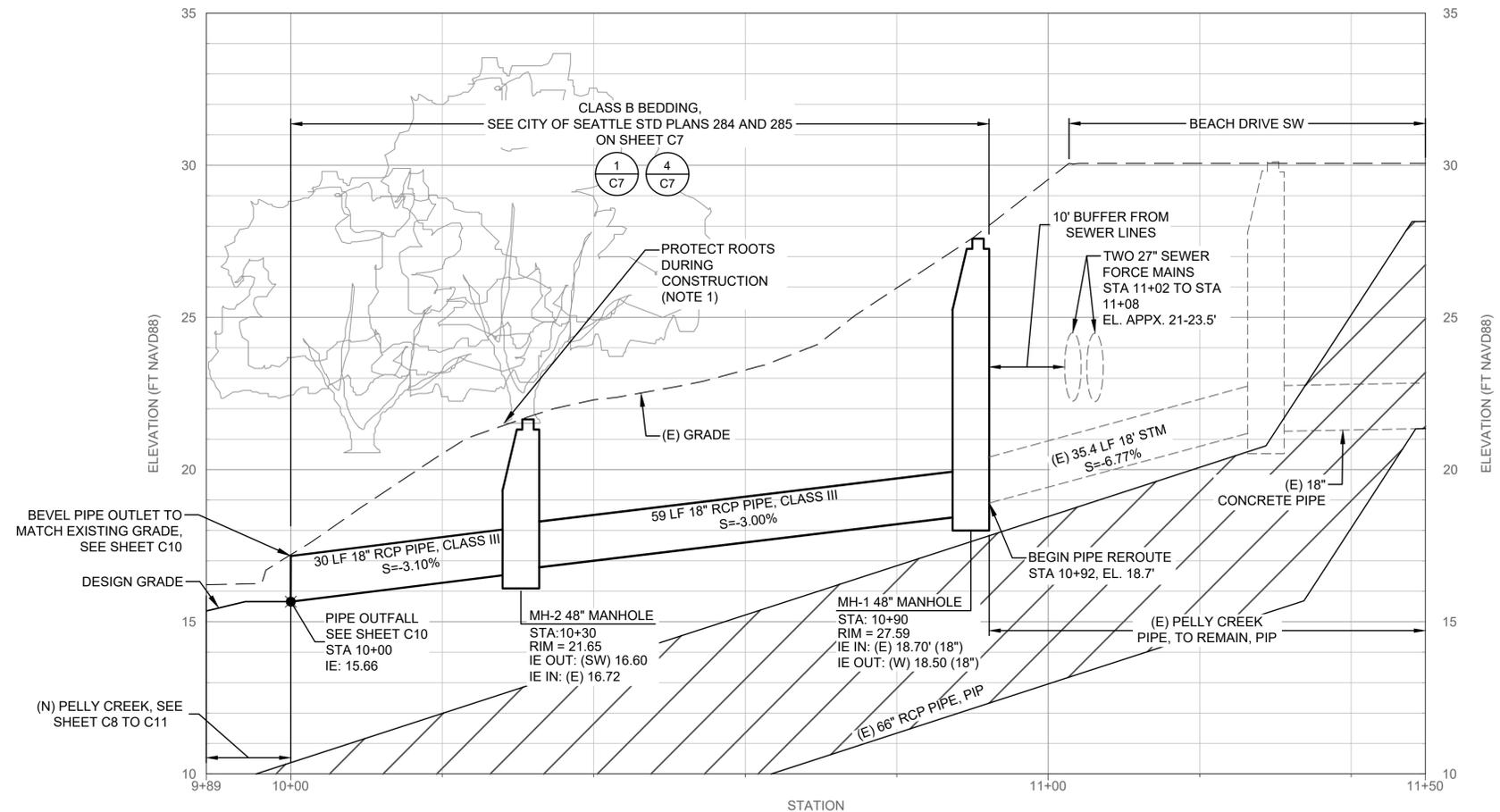
DESIGNED PDQ	DATE 01/24/2020
DRAWN HKS	SHEET 12 OF 36
CHECKED BTB	
ORDINANCE NO. X	C5
SPECIFICATION NO. X	
SCALE AS NOTED	

PLOT DATE: 1/30/2020 7:26:01 PM PLOTTED BY: PABLO QUIROGA FILE NAME: \\sfb-fie01\PROJECTS\SEA\16xxxx\160292\00 Lowman Beach Park\08_CADD\wg\CS WALL GRADING PLAN.dwg



PELLY CREEK PIPE RELOCATION
PLAN SCALE: 1" = 10'

- NOTES:**
- OWNER'S ARBORIST MUST BE ONSITE DURING EXCAVATION TO ENSURE MINIMAL DAMAGE TO TREES AND ROOT SYSTEM.
 - LOCATION AND DEPTHS OF EXISTING 66" RCP PSD AND 18" PELLY CREEK RCP PSD ARE UNCERTAIN. CONTRACTOR TO VIF. SEE G2.
 - REMOVE AND RESTORE TRAIL WHERE IT CROSSES NEW PIPE ALIGNMENT.



PELLY CREEK PIPE RELOCATION
PROFILE HORIZ: 1" = 10' VERTICAL: 1" = 2.5'

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ABBREVIATIONS:

PIP	PROTECT IN PLACE
(E)	EXISTING
FT	FEET
RCP	REINFORCED CONCRETE PIPE
STM	STORM
DIA	DIAMETER
EL.	ELEVATION

LEGEND:

	PROPERTY LINE
	PROJECT LIMITS
	(E) CONTOUR, MAJOR
	(E) CONTOUR, MINOR
	(N) CONTOUR, MAJOR
	(N) CONTOUR, MINOR
	GRADING LIMITS
	(E) 66" PIPE
	STREAMBED COBBLE
	SETBACK FROM FORCE MAINS
	(N) PELLY CREEK PIPE
	(E) PELLY CREEK PIPE
	(N) MAINTENANCE HOLE

3		
2		
1		
NO.	REVISION	DATE

REVIEWED: _____ DATE _____
PARK ENGINEER

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LOWMAN BEACH PARK
LOWMAN BEACH PARK SHORELINE RESTORATION
PELLY CREEK PIPE RELOCATION

DESIGNED NMR	DATE 01/24/2020
DRAWN AMF	SHEET 13 OF 36
CHECKED HLW	
ORDINANCE NO. X	C6
SPECIFICATION NO. X	
SCALE AS NOTED	

PLOT DATE: 1/30/2020 7:26:28 PM PLOTTED BY: PABLO QUIROGA FILE NAME: \\sfb-fie01\PROJECTS\SEA\16xxx\160292.00 Lowman Beach Park\08_CADD\wg\CB_PELLY_CREEK_PIPE_RELOCATION.dwg

>>>>CAUTION - CALL 811<<<<
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ABBREVIATIONS:

PIP	PROTECT IN PLACE
(E)	EXISTING
(N)	NEW
FT	FEET
APPX	APPROXIMATE
TYP	TYPICAL
RCP	REINFORCED CONCRETE PIPE
STA	STATION
PSD	PUBLIC STORM DRAIN
PRC	POINT OF RADIAL CURVATURE

LEGEND:

	PROPERTY LINE
	PROJECT LIMITS
	(E) CONTOUR, MAJO
	(E) CONTOUR, MINO
	(N) CONTOUR, MAJC
	(N) CONTOUR, MINO
	GRADING LIMITS
	(E) 66" PIPE
	STREAMBED COBBLE
	ROCK FOR EROSION CONTROL AND SCOUR PROTECTION CLASS A
	BURIED TOE PROTECTION

3		
2		
1		
NO.	REVISION - AS BUILT	DATE

REVIEWED: _____ DATE _____
 PARK ENGINEER

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LOWMAN BEACH PARK

LOWMAN BEACH PARK SHORELINE RESTORATION

PELLY CREEK PLAN

DESIGNED ESB DATE 01/24/2020
 DRAWN AMF SHEET 15 OF 36
 CHECKED HLW

ORDINANCE NO. X
 SPECIFICATION NO. X
 SCALE AS NOTED

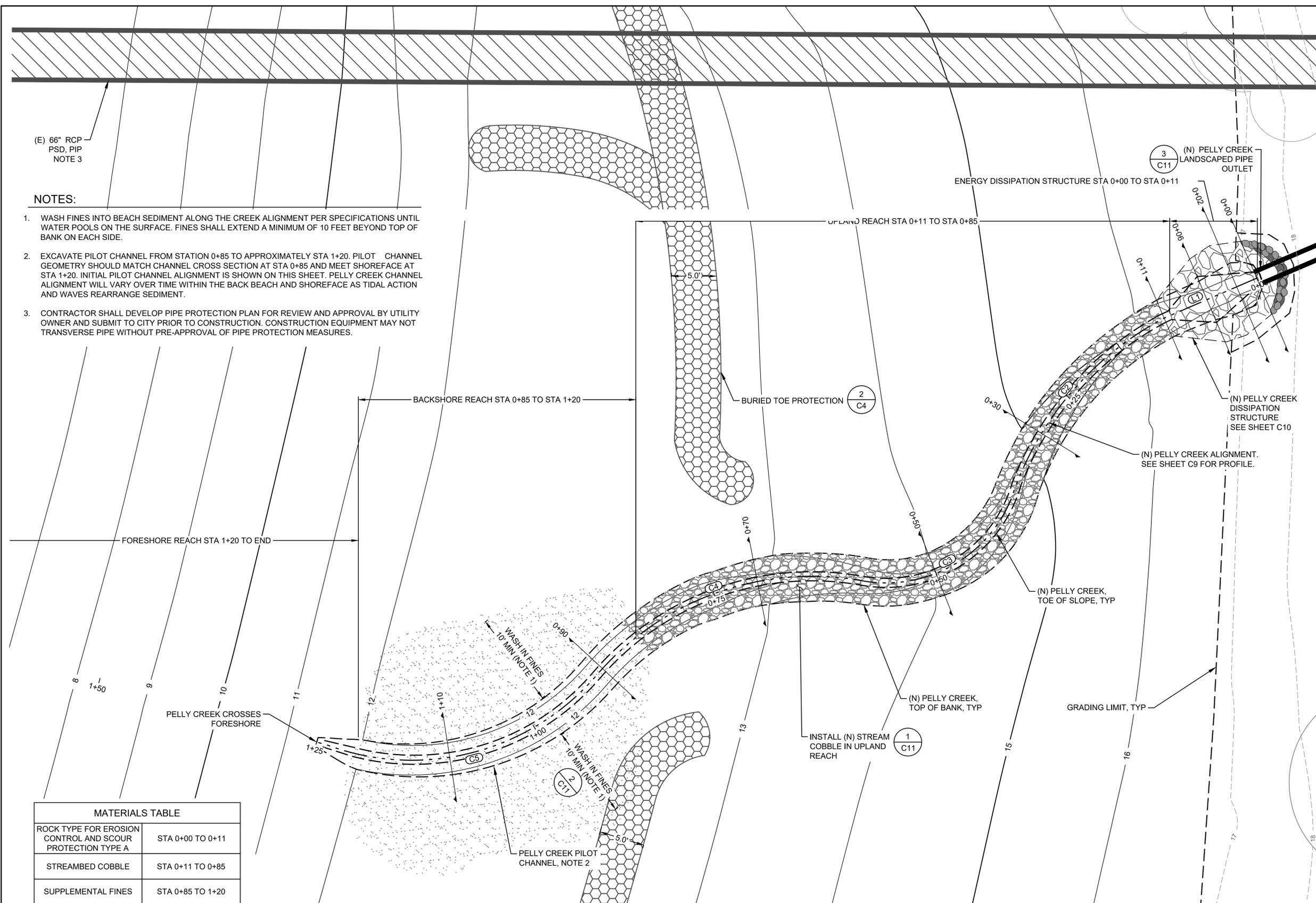
C8

(E) 66" RCP
 PSD, PIP
 NOTE 3

NOTES:

- WASH FINES INTO BEACH SEDIMENT ALONG THE CREEK ALIGNMENT PER SPECIFICATIONS UNTIL WATER POOLS ON THE SURFACE. FINES SHALL EXTEND A MINIMUM OF 10 FEET BEYOND TOP OF BANK ON EACH SIDE.
- EXCAVATE PILOT CHANNEL FROM STATION 0+85 TO APPROXIMATELY STA 1+20. PILOT CHANNEL GEOMETRY SHOULD MATCH CHANNEL CROSS SECTION AT STA 0+85 AND MEET SHOREFACE AT STA 1+20. INITIAL PILOT CHANNEL ALIGNMENT IS SHOWN ON THIS SHEET. PELLY CREEK CHANNEL ALIGNMENT WILL VARY OVER TIME WITHIN THE BACK BEACH AND SHOREFACE AS TIDAL ACTION AND WAVES REARRANGE SEDIMENT.
- CONTRACTOR SHALL DEVELOP PIPE PROTECTION PLAN FOR REVIEW AND APPROVAL BY UTILITY OWNER AND SUBMIT TO CITY PRIOR TO CONSTRUCTION. CONSTRUCTION EQUIPMENT MAY NOT TRANSVERSE PIPE WITHOUT PRE-APPROVAL OF PIPE PROTECTION MEASURES.

PLOT DATE: 1/30/2020 7:27:02 PM PLOTTED BY: PABLO QUIROGA FILE NAME: \\sfb-fie01\PROJECTS\SEA\16xxxx\160292.00 Lowman Beach Park\08_CADD\dwg\C8_PELLY_CREEK_PLAN.dwg



ROCK TYPE FOR EROSION CONTROL AND SCOUR PROTECTION TYPE A	STA 0+00 TO 0+11
STREAMBED COBBLE	STA 0+11 TO 0+85
SUPPLEMENTAL FINES	STA 0+85 TO 1+20

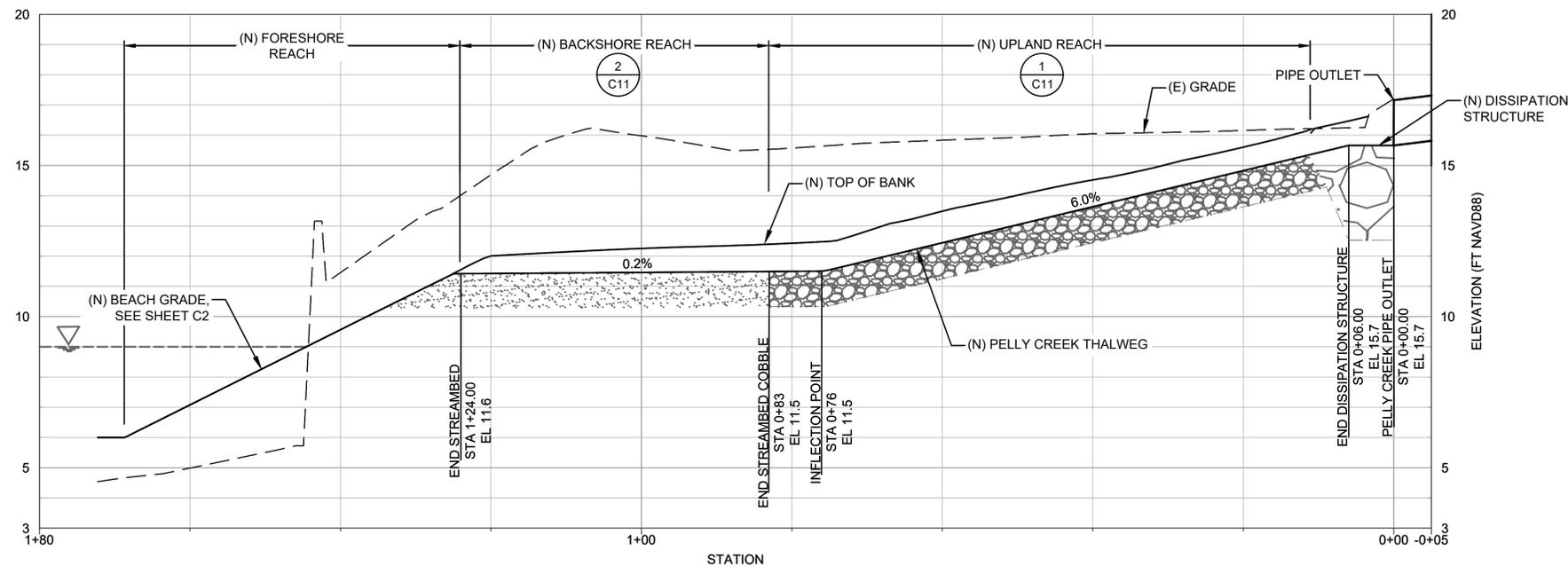
ID	LENGTH	RADIUS	START STATION	END STATION
L1	11.2		0+00	0+11
C2	26.8	35.0	0+11	0+38
C3	20.6	15.0	0+38	0+59
C4	32.5	31.5	0+59	0+91
C5	32.7	27.0	0+91	1+24

POINT #	RAW DESCRIPTION	STATION	ELEVATION	NORTHING	EASTING
1	PIPE OUTLET	STA 0+00	16.0	201062.6664	1254233.9046
2	END OF DISSIPATION STRUCTURE	STA 0+11	15.7	201058.3180	1254223.7815
3	INFLECTION POINT	STA 0+76	12.5	201027.6424	1254173.2306
4	END STREAMBED COBBLE	STA 0+85	12.4	201023.0005	1254165.0837
5	END STREAMBED	STA 1+24	11.4	201011.2430	1254130.5294



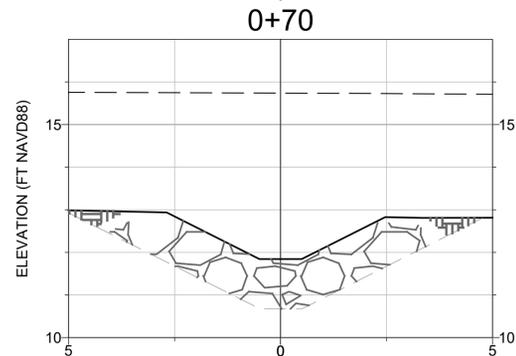
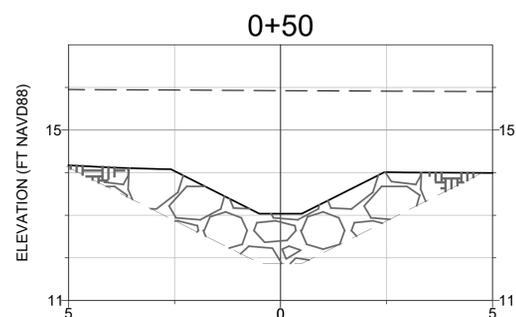
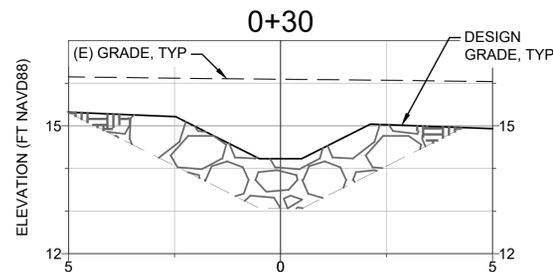
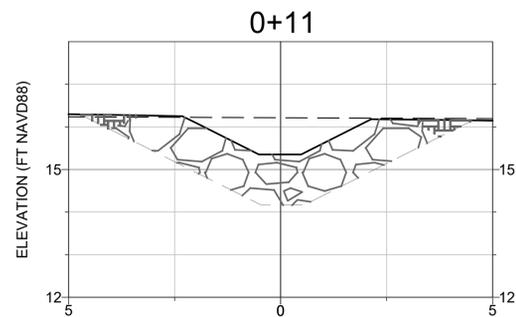
NOTES:

1. SECTIONS FACE DOWNSTREAM.
2. SEE TYPICAL BACKSHORE AND UPLAND SECTIONS ON SHEETS C3 AND C4.

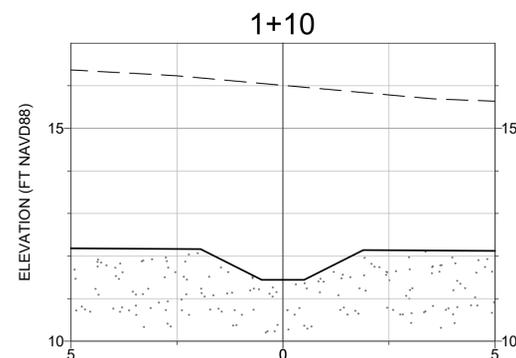
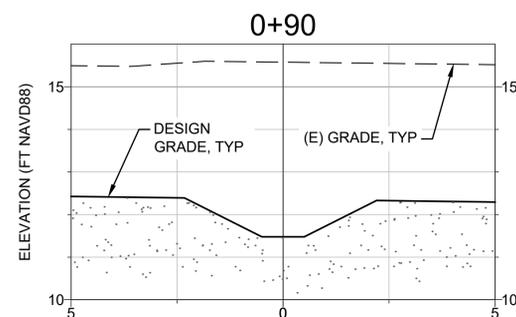


PELLY CREEK DAYLIGHTING

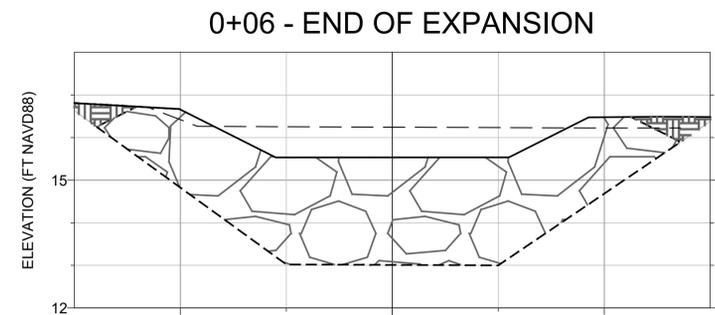
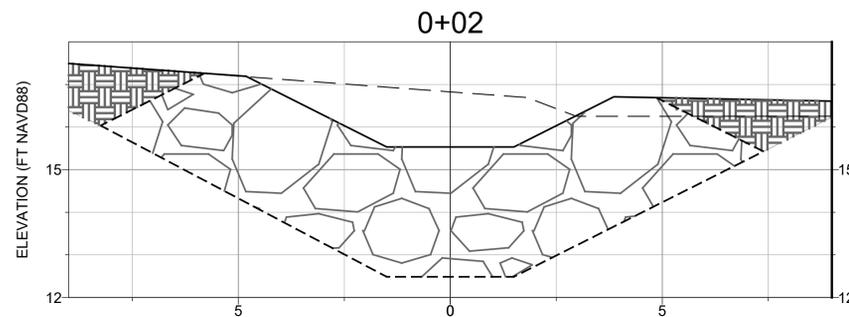
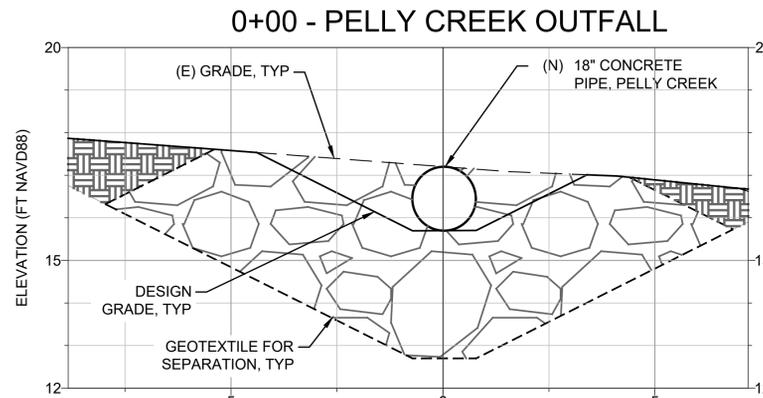
PROFILE
 HORIZ.: 1" = 10'
 VERT.: 1" = 5'



PELLY CREEK - UPLAND REACH
 SECTIONS SCALE: 1" = 2'



PELLY CREEK - BACKSHORE REACH
 SECTIONS SCALE: 1" = 2'



PELLY CREEK - DISSIPATION STRUCTURE
 SECTIONS SCALE: 1" = 2'

**>>>>CAUTION - CALL 811<<<<
 UTILITY NOTIFICATION CENTER
 BEFORE YOU DIG!**

WWW.CALL811.COM

Also, verify all underground utilities not located by the 811 service by using a commercial location service and call SPR Inspection Request Line (206) 684-7034.

ABBREVIATIONS:

- (E) EXISTING
- (N) NEW
- FT FEET
- TYP TYPICAL
- STA STATION
- EL. ELEVATION

LEGEND:

- LIMITS OF EXCAVATION
- DESIGN GRADE
- EXISTING GRADE
- GEOTEXTILE FOR SEPARATION
- STREAMBED COBBLE MIX
- NATIVE MATERIAL
- ROCK FOR EROSION CONTROL AND SCOUR PROTECTION CLASS A
- SUPPLEMENTAL FINES

NO.	REVISION	AS BUILT	DATE
3			
2			
1			

REVIEWED: DATE
 PARK ENGINEER

All work done in accordance with the City of Seattle Standard Plans and Specifications in effect on the date shown above, and supplemented by Special Provisions.

ESA 5309 SHILSHOLE AVE. NW, STE. 200 SEATTLE, WA 98107 OFFICE - 206.789.9658 WWW.ESASSOC.COM



**LOWMAN BEACH PARK
 LOWMAN BEACH PARK
 SHORELINE RESTORATION**

PELLY CREEK PROFILE & SECTIONS

DESIGNED <u>ESB</u>	DATE <u>01/24/2020</u>
DRAWN <u>AMF</u>	SHEET <u>16</u> OF <u>36</u>
CHECKED <u>HLW</u>	
ORDINANCE NO. <u>X</u>	C9
SPECIFICATION NO. <u>X</u>	
SCALE <u>AS NOTED</u>	

PLOT DATE: 1/30/2020 7:27:26 PM PLOTTED BY: PABLO QUIROGA FILE NAME: \\sfb-fie\p1\PROJECTS\SEA\16xxx\160292.dwg Lowman Beach Park\08_CADD\wg\c9 PELLY CREEK PROFILE & SECTIONS.dwg

**>>>>CAUTION - CALL 811<<<<
UTILITY NOTIFICATION CENTER
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WWW.CALL811.COM

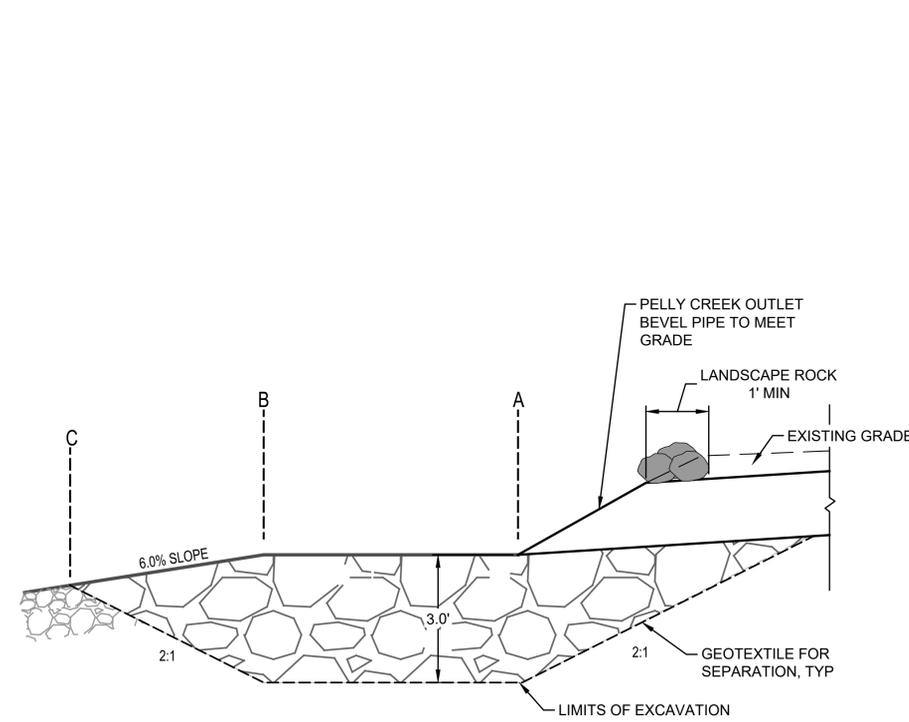
Also, verify all underground utilities not located by the 811 service by using a commercial location service and call SPR Inspection Request Line (206) 684-7034.

ABBREVIATIONS:

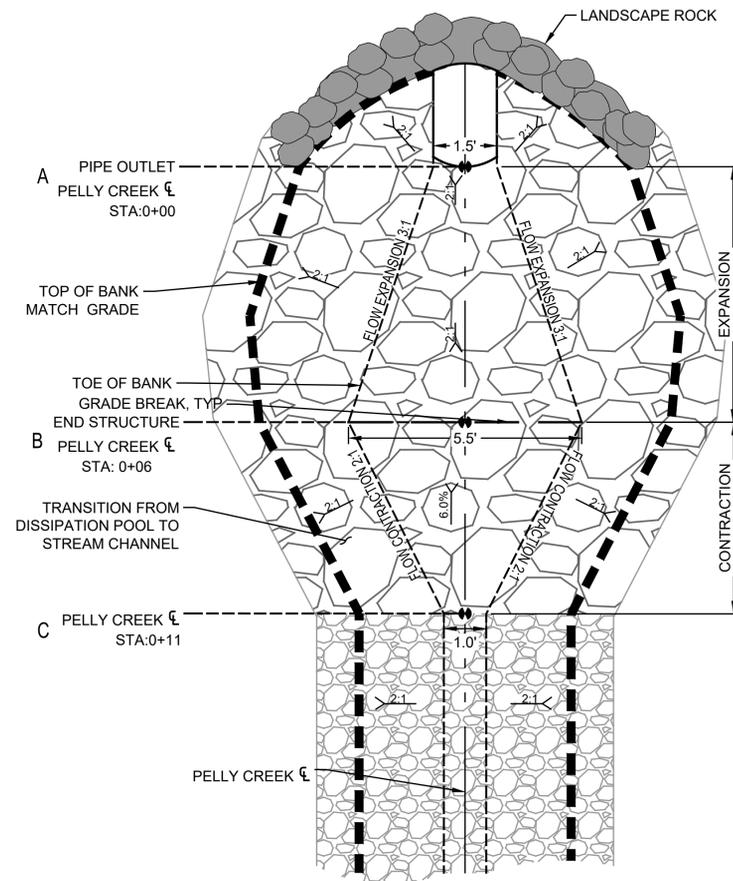
(E)	EXISTING
(N)	NEW
FT	FEET
MIN	MINIMUM
TYP	TYPICAL
STA	STATION

LEGEND:

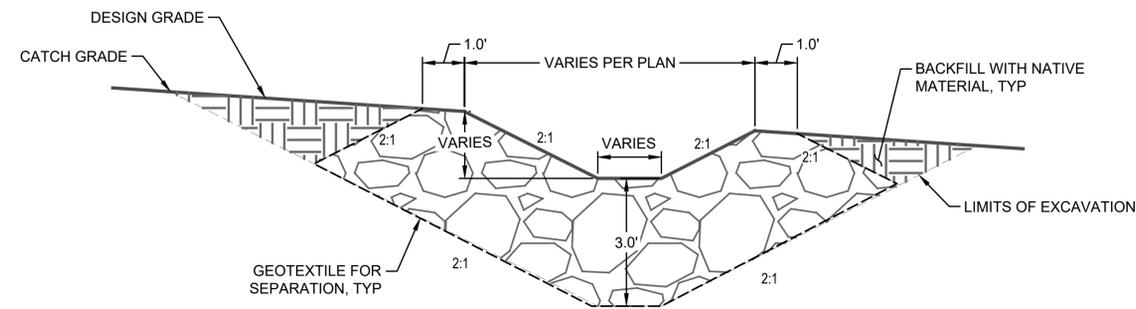
	LIMITS OF EXCAVATION
	DESIGN GRADE
	EXISTING GRADE
	GRADE BREAK
	TOE OF SLOPE
	TOP OF BANK
	GEOTEXTILE FOR SEPARATION
	STREAMBED COBBLE MIX
	NATIVE MATERIAL
	ROCK FOR EROSION CONTROL AND SCOUR PROTECTION CLASS A



PROFILE



PLAN



TYPICAL SECTION

1
-
DISSIPATION STRUCTURE
SCALE: 1" = 2'

3		
2		
1		
NO.	REVISION - AS BUILT	DATE

REVIEWED: _____ DATE _____
PARK ENGINEER

All work done in accordance with the City of Seattle Standard Plans and Specifications in effect on the date shown above, and supplemented by Special Provisions.

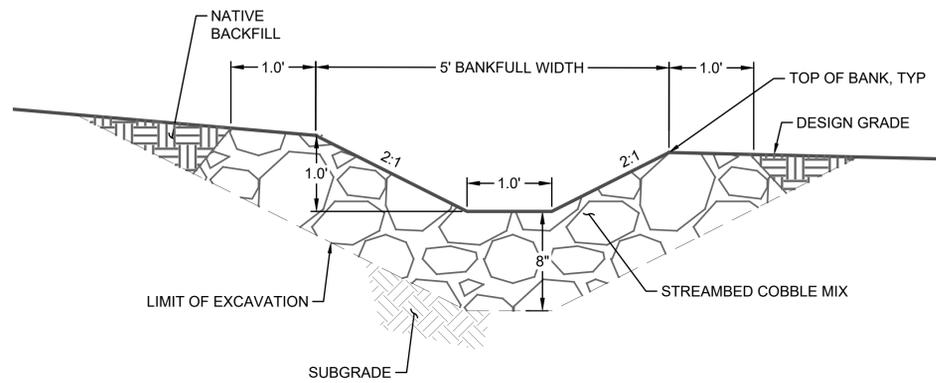
ESA 5309 SHILSHOLE AVE. NW, STE. 200
SEATTLE, WA 98107
OFFICE - 206.789.9658
WWW.ESASSOC.COM



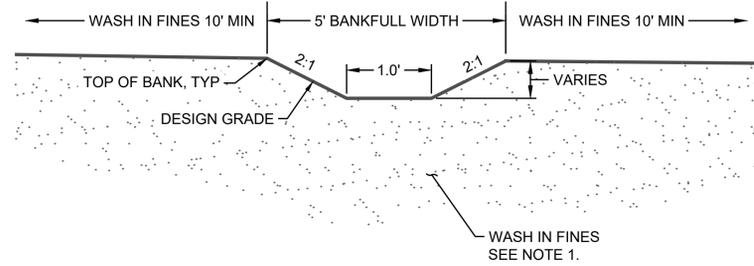
**LOWMAN BEACH PARK
LOWMAN BEACH PARK
SHORELINE RESTORATION
PELLY CREEK DISSIPATION
STRUCTURE**

DESIGNED ESB	DATE 01/24/2020
DRAWN AMF	
CHECKED HLW	SHEET 17 OF 36
ORDINANCE NO. X	C10
SPECIFICATION NO. X	
SCALE AS NOTED	

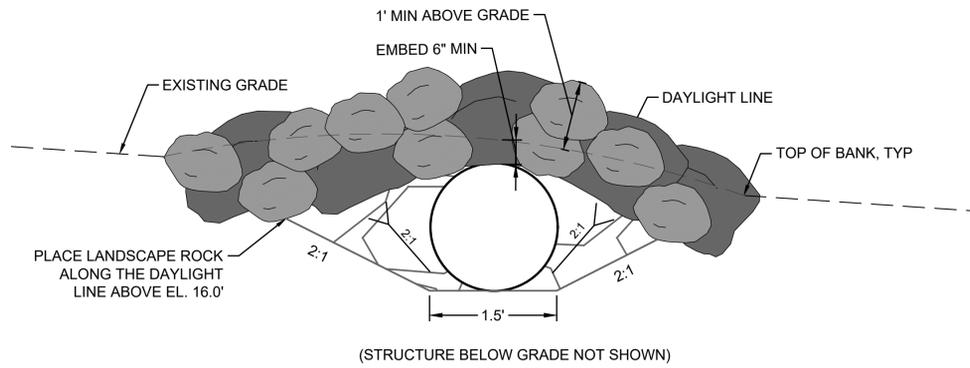
PLOT DATE: 1/30/2020 7:27:53 PM PLOTTED BY: PABLO QUIROGA FILE NAME: \\sfb-fie01\PROJECTS\SEA\160292\00 Lowman Beach Park\08_CADD\dwg\C11 PELLY CREEK DETAILS.dwg



1 PELLY CREEK TYPICAL SECTION - UPLAND REACH
C8 DETAIL SCALE: 1" = 1'



2 PELLY CREEK TYPICAL SECTION - BACKSHORE REACH
C8 DETAIL SCALE: 1" = 1'



3 LANDSCAPED PIPE OUTLET - FRONT VIEW
C8 DETAIL NTS

>>>>CAUTION - CALL 811<<<<
UTILITY NOTIFICATION CENTER
BEFORE YOU DIG!
WWW.CALL811.COM

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- NOTES:**
1. WASH FINES INTO BEACH SEDIMENT ALONG THE CREEK ALIGNMENT PER SPECIFICATIONS UNTIL WATER POOLS ON THE SURFACE. FINES SHALL EXTEND A MINIMUM OF 10 FEET BEYOND TOP OF BANK ON EACH SIDE.

ABBREVIATIONS:

(E)	EXISTING
(N)	NEW
DIA	DIAMETER
EL.	ELEVATION
MIN	MINIMUM
TYP	TYPICAL
STA	STATION

LEGEND:

---	LIMITS OF EXCAVATION
—	DESIGN GRADE
- - - -	EXISTING GRADE
	STREAMBED COBBLE MIX
	NATIVE BACKFILL MATERIAL
	ROCK FOR EROSION CONTROL AND SCOUR PROTECTION CLASS A
	SUPPLEMENTAL FINES

3		
2		
1		
NO.	REVISION - AS BUILT	DATE

REVIEWED: _____ DATE _____
PARK ENGINEER

All work done in accordance with the City of Seattle Standard Plans and Specifications in effect on the date shown above, and supplemented by Special Provisions.

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LOWMAN BEACH PARK
LOWMAN BEACH PARK SHORELINE RESTORATION
PELLY CREEK DETAILS

DESIGNED	ESB	DATE	01/24/2020
DRAWN	AMF		
CHECKED	MJP	SHEET	18 OF 36
ORDINANCE NO.	X		C11
SPECIFICATION NO.	X		
SCALE	AS NOTED		

GENERAL:

CONTRACTOR IS REQUIRED TO PROTECT EXISTING NEARBY STRUCTURES FROM DAMAGE DURING CONSTRUCTION. ALL STRUCTURES SHALL BE RESTORED TO ORIGINAL CONDITION AT NO ADDITIONAL EXPENSE TO OWNER.

EXISTING UTILITIES:

CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL UTILITIES PRIOR TO COMMENCEMENT OF ANY SITE WORK. ANY DAMAGES CAUSED BY THE CONTRACTOR TO UTILITIES DURING CONSTRUCTION SHALL BE RECTIFIED BY THE CONTRACTOR AT CONTRACTOR'S EXPENSE.

DEMOLITION NOTES:

- 1. THE CONTRACTOR SHALL VERIFY ALL LEVELS, DIMENSIONS, AND EXISTING CONDITIONS IN THE FIELD PRIOR TO PLACING A BID. THE CONTRACTOR SHALL NOTIFY THE CITY OF ANY DISCREPANCIES OR FIELD CHANGES PRIOR TO PLACING THEIR BID.
2. DO NOT SCALE DRAWINGS. DRAWINGS ARE APPROXIMATE AND ONSITE CONDITIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR.
3. THE CONTRACTOR IS REQUIRED TO PROTECT EXISTING NEARBY STRUCTURES FROM DAMAGE DURING DEMOLITION. ALL STRUCTURES TO REMAIN SHALL BE RESTORED TO PRE-PROJECT CONDITION UPON COMPLETION OF THE WORK TO THE SATISFACTION OF THE CITY.
4. THE CONTRACTOR SHALL ENSURE SAFETY AND STABILITY OF EXISTING RETAINING WALL DURING CONSTRUCTION. PLAN VIEW EXTENTS AND DEPTH OF RETAINING WALL ARE UNKNOWN. CONTRACTOR MAY TEMPORARILY SHORE RETAINING WALL AT CONTRACTOR'S EXPENSE

CODES AND STANDARDS

ALL METHODS, CONSTRUCTION, AND MATERIALS SHALL CONFORM TO CITY OF SEATTLE BUILDING CODE AND INTERNATIONAL BUILDING CODE, 2015 EDITION, AS AMENDED AND ADOPTED BY THE CITY OF SEATTLE.

ADDITIONAL REFERENCES:

- 1. ACI 301-16 SPECIFICATIONS FOR STRUCTURAL CONCRETE
2. ACI 318-14. BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE AND COMMENTARY.
3. AISC 360-10. SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS.
4. AISC 303-10. CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES.
5. ASCE 7-10. MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES.
6. AWS D1.1 STRUCTURAL WELDING CODE - STEEL

LOADS

DEAD LOAD

WEIGHT OF ALL MATERIALS OF CONSTRUCTION

SEISMIC

- SITE CLASS = D
SEISMIC DESIGN CATEGORY = D
EFFECTIVE PEAK GROUND ACCELERATION A_s = F_pga_PGA = 0.66g
DESIGN SPECTRAL ACCELERATION COEFFICIENT AT 0.2 SECOND PERIOD S_DS = F_aS_s = 1.044g
DESIGN SPECTRAL ACCELERATION COEFFICIENT AT 1.0 SECOND PERIOD S_D1 = F_vS_1

LIVE LOAD

SURCHARGE = 250 PSF

SOIL PRESSURE

IN ADDITION TO THE DEAD AND LIVE LOADS, THE BULKHEADS HAVE BEEN DESIGNED FOR SOIL PRESSURES SPECIFIED IN THE GEOTECHNICAL REPORT.

GEOTECHNICAL

GEOTECHNICAL REPORT

ROBINSON & NOBLE: DRAFT - LOWMAN BEACH PARK SEAWALL PERMIT DESIGN DATED 7/26/2018
CITY OF SEATTLE PUBLIC UTILITIES LABORATORY: [ADD DATE & TITLE WHEN AVAILABLE]

PRECAST CONCRETE WALL

ALL CONCRETE WORK SHALL COMPLY WITH THE RECOMMENDATIONS OF ACI 301 AND ACI 318, UNLESS OTHERWISE NOTED. THE CONCRETE MIX IS THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE PROPORTIONED TO MEET OR EXCEED THE FOLLOWING REQUIREMENTS. PERCENTAGES LISTED BELOW REPRESENT THE PERCENTAGE OF THE TOTAL CEMENTITIOUS MATERIAL.

- 1. MAXIMUM AGGREGATE SIZE = 1 1/2 INCH.
2. MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS = 6000 PSI.
3. MINIMUM FLYASH CONTENT (CLASS F) = 15%.
4. MAXIMUM SILICA FUME CONTENT = 10%
5. MAXIMUM FLY ASH, OTHER POZZOLANS, AND SILICA FUME CONTENT = 35%
6. MAXIMUM GRANULATED BLAST FURNACE SLAG + FLY ASH OR OTHER POZZOLANS = 50%
7. MAXIMUM WATER CEMENT RATIO = 0.4.
8. HYCRETE X1000 CORROSION INHIBITOR AT A RATE OF 2 GALLONS PER CUBIC YARD OF MIXED CONCRETE. CEMENTAID EVERDURE CALTATE MAY BE USED AS AN EQUIVALENT PRODUCT AT A RATE OF 6 GALLONS PER CUBIC YARD OF CONCRETE, PROVIDED THAT THE CONTRACTOR CAN PROVIDE A HISTORY OF SUCCESSFUL USE AND IMPLEMENTS ADEQUATE MEASURES TO PROTECT CREWS FROM THE IMPACTS OF AMMONIA GAS DURING CASTING.
9. MAXIMUM WATER-SOLUBLE CHLORIDE ION (C1-) CONTENT IN CONCRETE, EXPRESSED IN PERCENT BY WEIGHT OF CEMENT SHALL BE 0.06.

AIR ENTRAINING ADMIXTURES SHALL CONFORM TO ASTM C260. AIR ENTRAINMENT SHALL BE WITHIN THE RANGES SPECIFIED IN THE TABLE BELOW. ADDITIONAL TOLERANCES SHALL NOT BE APPLIED.

Table with 6 columns: MAXIMUM AGGREGATE SIZE (INCHES), 3/8, 1/2, 3/4, 1, 1 1/2; CORRESPONDING AIR ENTRIAMENT (%), 6-9, 5.5-8.5, 4.5-7.5, 4.5-7.5, 4-7

CEMENT SHALL CONFORM TO ASTM C150, TYPE 2. THE CONTRACTOR SHALL USE NORMAL WEIGHT AGGREGATES CONFORMING TO ASTM C33. CALCIUM NITRITE CORROSION INHIBITOR IS NOT PERMITTED.

CONTRACTOR SHALL SUBMIT MIX DESIGN TO THE OWNER FOR REVIEW AND APPROVAL ALONG WITH STRENGTH-TEST RESULTS. CONTRACTOR IS RESPONSIBLE FOR HIRING AN INDEPENDENT LABORATORY TO PERFORM COMPRESSIVE STRENGTH AND AIR ENTRAINMENT TESTING. ALL EXPOSED SURFACES SHALL HAVE A SMOOTH FINISH UNLESS NOTED OTHERWISE. THE CONTRACTOR SHALL NOT HAND-MIX CONCRETE.

LIFTING INSERTS, IF REQUIRED, SHALL BE CONTRACTOR-DESIGNED, AND SHALL BE LOCATED SUCH THAT THEY ARE NOT VISIBLE AFTER CONSTRUCTION. LIFTING INSERTS ON EXPOSED SURFACE SHALL BE CONCEALED WITH GROUT ONCE PRECAST ELEMENTS HAVE BEEN PLACED.

REINFORCING STEEL

ALL REINFORCING STEEL SHALL BE DEFORMED STEEL BARS CONFORMING TO THE REQUIREMENTS OF ASTM A615, GRADE 60, UNO.

ALL WELDABLE REINFORCING STEEL SHALL BE DEFORMED STEEL BARS CONFORMING TO THE REQUIREMENTS OF ASTM A706, GRADE 60.

ALL DETAILING, FABRICATION, AND ERECTION OF REINFORCING STEEL SHALL BE IN ACCORDANCE WITH "ACI MANUAL OF STANDARD PRACTICES FOR DETAILING REINFORCED CONCRETE STRUCTURES", ACI 315, AND ACI 318. ALL REINFORCING BENDS SHALL BE MADE IN ACCORDANCE WITH ACI 318. FIELD BENDING OF REINFORCEMENT IS NOT ALLOWED WITHOUT OWNER APPROVAL.

BARS SHALL BE CLEAN OF RUST, DIRT, MILL SCALE, GREASE, OR ANY OTHER MATERIALS THAT MAY IMPAIR BOND, AT THE DISCRETION OF THE OWNER.

THE CONTRACTOR SHALL HIRE AN INDEPENDENT INSPECTION AGENCY TO INSPECT THE FINAL REINFORCEMENT PLACEMENT AT LEAST 24 HOURS PRIOR TO CONCRETE PLACEMENT. INSPECTION REPORTS SHALL BE SUBMITTED TO THE OWNER PRIOR TO CONCRETE PLACEMENT.

ALL REINFORCING STEEL IS TO BE HOT-DIP GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH ASTM A767, STANDARD SPECIFICATION FOR ZINC-COATED (GALVANIZED) STEEL BARS FOR CONCRETE REINFORCEMENT, AND ASTM A123, STANDARD SPECIFICATION FOR ZINC (HOT-DIP GALVANIZED) COATINGS ON IRON AND STEEL PRODUCTS. THE ALLOWABLE BEND RADIUS SHALL BE DETERMINED IN ACCORDANCE WITH TABLE 2 OF ASTM A767.

BAR CHAIRS AND WIRE TIES SHALL MEET THE REQUIREMENTS DESCRIBED IN THE SPECIFICATIONS.

POST INSTALLED SCREW-TYPE ANCHORS

SCREW ANCHORS SHALL BE 316 STAINLESS STEEL. ANCHORS SHALL BE SIMPSON STRONG-TIE STAINLESS STEEL TITEN HD (ER-493). PRIOR TO INSTALLING ANCHORS, HOLES SHALL BE THOROUGHLY CLEANED WITH A WIRE BRUSH AND OIL-FREE COMPRESSED AIR. ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS INCLUDING BUT NOT EXCLUSIVELY THEIR RECOMMENDATIONS FOR DRILLING METHODS, HOLE SIZE, HOLE PREPARATION, AND PLACEMENT OF THE ANCHOR. HOLES FOR ANCHORS SHALL BE INSPECTED AFTER FINAL CLEANING FOR CONFORMANCE WITH THE PROJECT REQUIREMENTS AND MANUFACTURER'S INSTALLATION INSTRUCTIONS BY AN INDEPENDENT TESTING AGENCY HIRED BY THE CONTRACTOR. REPORTS ARE TO BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

SCREW ANCHORS SHALL BE SEPARATED FROM CARBON-STEEL COMPONENTS BY BLACK UHMW-PE ISOLATION WASHERS (MINIMUM 1/8" THICK).

POST INSTALLED EPOXY ANCHORS

EPOXY ANCHORING SHALL BE ACCOMPLISHED WITH HILTI RE 500-V3 EPOXY OR OWNER APPROVED EQUIVALENT. USED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. HOLES FOR EPOXY ANCHORS SHALL BE MADE USING A STEEL PLATE TEMPLATE. HOLES SHALL BE DRILLED IN CONFORMANCE WITH THE MANUFACTURER'S RECOMMENDATIONS FOR CRACKED CONCRETE. PRIOR TO INSTALLING ANCHORS, HOLES SHALL BE THOROUGHLY CLEANED WITH A WIRE BRUSH AND OIL-FREE COMPRESSED AIR.

EPOXY ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS INCLUDING BUT NOT EXCLUSIVELY THEIR RECOMMENDATIONS FOR DRILLING METHODS, HOLE SIZE, HOLE PREPARATION, EPOXY INSERTION, AND PLACEMENT OF THE ANCHOR.

HOLES FOR EPOXY ANCHORS SHALL BE INSPECTED AFTER FINAL CLEANING FOR CONFORMANCE WITH THE PROJECT REQUIREMENTS AND MANUFACTURER'S INSTALLATION INSTRUCTIONS BY AN INDEPENDENT TESTING AGENCY HIRED BY THE CONTRACTOR. REPORTS ARE TO BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

THREADED ROD FOR EPOXY ANCHORS SHALL BE CLEANED AND DEGREASED PRIOR TO EPOXY ANCHOR INSTALLATION TO FULLY REMOVE GREASE AND OTHER DELETERIOUS SUBSTANCES THAT WOULD INTERFERE WITH BOND.

ANCHOR ROD PRODUCTS ARE SPECIFIED HEREIN.

BOLT TIGHTENING

BOLTS SHALL BE INSTALLED SNUG-TIGHT. POST-INSTALLED ANCHOR BOLTS SHALL BE TIGHTENED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS UNLESS OTHERWISE NOTED.

RED LINE DRAWINGS

CONTRACTOR IS TO ACTIVELY MAINTAIN A RED-LINE SET OF DRAWINGS SHOWING THE AS-CONSTRUCTED IMPROVEMENTS, AND SUBMIT THE RED-LINE SET OF DRAWINGS IN PDF FORMAT WHEN THE WORK IS COMPLETE

STEEL

MATERIALS:

Table with 2 columns: MEMBER TYPE, ASTM SPECIFICATION. Rows include PLATES (ASTM A572 GR 50), ANGLES, CHANNELS, AND BARS (A36), MACHINE BOLTS (A307), THREADED ROD (ASTM F1554), and W-SHAPES (ASTM A992).

ALL STEEL TO BE WELDED SHALL HAVE A CARBON EQUIVALENT LESS THAN 0.45 AS CALCULATED BY THE METHODS DESCRIBED IN DETAIL IN AWS D1.1 ANNEX H.

CAMBER: STEEL MEMBERS SHALL BE PROVIDED WITHOUT CAMBER.

CHARPY TESTING: STEEL MATERIAL SHALL MEET CHARPY V-NOTCH REQUIREMENTS WELDING PROCEDURES FOR DEMAND-CRITICAL WELDS. WELDS SHALL BE MADE WITH FILLER METAL PRODUCING WELDS WITH A MINIMUM CHARPY V-NOTCH TOUGHNESS OF 20 FT-LBF AT MINUS 20 DEGREES FAHRENHEIT AND 40 FT-LBF AT 70 DEGREES FAHRENHEIT AS DETERMINED BY THE APPLICABLE AWS A5 CLASSIFICATION TEST METHOD.

HARDWARE: ALL OVERSIZED OR SLOTTED HOLES SHALL HAVE WASHERS PROVIDED IN ACCORDANCE WITH AISC 360, UNLESS NOTED OTHERWISE. WASHERS ARE REQUIRED UNDER BOTH THE HEAD AND NUT OF ALL BOLTS UNLESS NOTED OTHERWISE. ALL HARDWARE TO BE HOT DIP GALVANIZED IN ACCORDANCE WITH ASTM A153. ALL BOLTS SHALL BE SECURED WITH TWO NUTS EACH, UNLESS OTHERWISE NOTED. MARINE GRADE NON-METALLIC ANTI-SEIZE AND ANTI-CORROSION COMPOUND, AS MANUFACTURED BY ANTI-SEIZE TECHNOLOGY OR APPROVED EQUIVALENT, SHALL BE APPLIED TO ALL THREADED FASTENERS PRIOR TO NUT INSTALLATION. AFTER HARDWARE IS SECURED, EXCESS COMPOUND SHALL BE WIPED OFF. CONTRACTOR IS TO SUBMIT ANTI-SEIZE AND ANTI-CORROSION COMPOUND FOR APPROVAL.

WELDING: ALL WELDING ACTIVITIES AND COMPLETED WELDS SHALL COMPLY WITH AWS D1.1. WELDS SHALL BE MADE USING LOW HYDROGEN ELECTRODES WITH MINIMUM TENSILE STRENGTH OF 70 KSI. PREHEAT AND INTERPASS TEMPERATURES FOR ALL STEEL MATERIALS SHALL BE DETERMINED BY THE ENGINEER IN ACCORDANCE WITH AWS D1.1 ANNEX H BASED ON MANUFACTURER-PROVIDED MILL CERTIFICATES, AND SHALL BE ADHERED TO BY THE CONTRACTOR. ALL WELDS SHALL BE PERFORMED WITH PREQUALIFIED PROCEDURES, OR PROCEDURES QUALIFIED IN ACCORDANCE WITH AWS D1.1. ONLY AWS PREQUALIFIED WELDED JOINTS SHALL BE USED. SHOP DRAWINGS SHALL SHOW ALL WELDING WITH AWS A2.4 STANDARD SYMBOLS. WELDS SHOWN ON DRAWINGS ARE MINIMUM SIZES. INCREASE WELD SIZE TO AWS MINIMUM SIZES BASED ON PLATE THICKNESS. WELDS NOT SPECIFIED SHALL BE CONTINUOUS 5/16" FILLET WELDS OR EQUIVALENT.

**>>>>CAUTION - CALL 811<<<<
UTILITY NOTIFICATION CENTER
BEFORE YOU DIG!**

WWW.CALL811.COM

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NOTES:

- 1. THESE NOTES APPLY TO SHEETS S21, S31, S32, S41, S42, S43, S44, S45, & S46.



Table with 3 columns: NO., REVISION - AS BUILT, DATE. Rows 1-3 are empty.

REVIEWED: PARK ENGINEER DATE

All work done in accordance with the City of Seattle Standard Plans and Specifications in effect on the date shown above, and supplemented by Special Provisions.



LOWMAN BEACH PARK

LOWMAN BEACH PARK SHORELINE RESTORATION

STRUCTURAL GENERAL NOTES

Table with 2 columns: DESIGNED, DRAWN, CHECKED, ORDINANCE NO., SPECIFICATION NO., SCALE; DATE, SHEET, OF. Values include JAP, DJO, CMH, X, X, NO SCALE, 1/24/20, 19, 36, S11.

Jun 23, 2020 7:50pm jpadorac H:\24WF\2017\004 Seattle Parks Lowman Beach Drafting\Design - CAD\4704-S11.dwg Layout Name: S12

ALL WELDING CONSUMABLES SHALL BE USED IN FULL COMPLIANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS OTHERWISE JUSTIFIED BY WELD PROCEDURE QUALIFICATION TESTING.

ALL FIELD WELDS SHALL BE PERFORMED USING SELF-SHIELDING FCAW ELECTRODES. GAS-SHIELDED FCAW ELECTRODES SHALL NOT BE USED FOR FIELD WELDS.

WELDING THROUGH PAINT OR GALVANIZING SHALL NOT BE PERFORMED. PAINT OR GALVANIZING WITHIN 1/2" OF AN AREA TO BE WELDED SHALL BE REMOVED PRIOR TO WELDING AND REPAIRED IN ACCORDANCE WITH THESE NOTES.

WELDS SHOWN ON DRAWINGS ARE FOR FINAL CONNECTIONS. UNLESS FIELD WELD SYMBOLS ARE SHOWN, CONTRACTOR SHALL BE RESPONSIBLE FOR ALL JOINT PREPARATIONS AND WELDING PROCEDURES, INCLUDING ROOT OPENINGS AND FACE DIMENSIONS, GROOVE ANGLES, BACKING BARS, COPES, TAPERS, AND SURFACE ROUGHNESS.

WELDER CERTIFICATION: ALL WELDERS SHALL BE CERTIFIED IN ACCORDANCE WITH AWS D1.1 OR WABO TO PERFORM THEIR WORK.

STEEL PILE INSTALLATION: PILES ARE TO BE INSTALLED USING AN AUGER-CAST METHOD. A STEEL TEMPORARY DRILL CASING SHALL BE PROVIDED AS SHOWN ON THE DRAWINGS TO PREVENT GROUT FROM ENTERING WATERS OF THE STATE. IT IS ANTICIPATED THAT INSTALLATION OF THE STEEL TEMPORARY DRILL CASING WILL REQUIRE USE OF A VIBRATORY HAMMER. PILES INSTALLATION SHALL BE STAGGERED IN ACCORDANCE WITH THE RECOMMENDATIONS CONTAINED IN THE GEOTECHNICAL REPORT. THE CONTRACTOR SHALL USE A ONE-PIECE STEEL TEMPLATE TO ENSURE PILES ARE INSTALLED IN THE LOCATION SHOWN IN THE DRAWINGS WITHIN THE SPECIFIED TOLERANCES. NOTE THAT AS-BUILT DRAWINGS FOR THE EXISTING FACILITY SHOW THAT CONCRETE RUBBLE WAS USED FOR FILL BETWEEN ELEVATION +6 AND THE EXISTING GRADE IN THE AREA WHERE PILES ARE TO BE INSTALLED.

PILE INSTALLATION TOLERANCES: SEE SPECIFICATIONS.

GROUT FOR AUGER-CAST PILES: GROUT SHALL BE A CEMENTITIOUS STANDARD GROUT IN ACCORDANCE WITH THE SPECIFICATIONS.

DEBRIS REMOVAL TO FACILITATE PILE DRIVING: RECORD DRAWINGS OF THE EXISTING FACILITY SHOW THAT CONCRETE RUBBLE AND CONSTRUCTION DEBRIS WERE USED AS FILL IN THE AREA WHERE PILES ARE TO BE INSTALLED. THE CONTRACTOR SHALL INCLUDE IN THEIR BASE BID ANY EXCAVATION REQUIRED BETWEEN ELEVATION +6 AND THE TOP OF THE EXISTING GRADE AS REQUIRED TO FACILITATE PILE INSTALLATION.

PILE INSTALLATION LOGS: THE CONTRACTOR SHALL SUBMIT PILE INSTALLATION LOGS TO THE ENGINEER. THE INSTALLATION LOGS SHALL BE APPROVED PRIOR TO PILE CUTOFF.

PILE INSTALLATION NOTIFICATION: THE CONTRACTOR SHALL NOTIFY THE ENGINEER AT LEAST 3 DAYS IN ADVANCE OF THE COMMENCEMENT OF PILE INSTALLATION ACTIVITIES.

PILE SPLICING: PILES SHALL BE PROVIDED FULL-LENGTH WITH NO SPLICES.

COATINGS

GALVANIZING: ALL STEEL SHALL BE HOT-DIP GALVANIZED AFTER FABRICATION UNLESS OTHERWISE NOTED.

REPAIR OF GALVANIZED COATING: REPAIR ALL GALVANIZED SURFACES REMOVED OR DAMAGED DURING WELDING, SHIPPING, OR ERECTION IN ACCORDANCE WITH ASTM A780. REPAIR MATERIAL SHALL BE ZINC-BASED ALLOY SOLDER (ZINC ROD).

PILE COATING: THE TOP 40 FEET OF THE W14x PILING SHALL BE HOT DIP GALVANIZED. THE TOP 30 FEET OF THE W14X PILING SHALL BE COATED WITH A DUPLEX PAINT SYSTEM CONSISTING OF HOT-DIP-GALVANIZING FOLLOWED BY COATING WITH A MODIFIED EPOXY BARRIER COAT. GALVANIZED PILE SHALL BE PREPARED FOR PAINTING IN ACCORDANCE WITH ASTM D6386 AND THE RECOMMENDATIONS PROVIDED IN "PAINTING OVER HOT DIP GALVANIZED STEEL" BY LANGILL, THOMAS, PH. D., AMERICAN GALVANIZERS ASSOCIATION (AVAILABLE AT HTTP://WWW.GALVANIZEIT.ORG/IMAGES/UPLOADS/ARTICLES/PAINTSTEEL.PDF). TREATMENT AFTER GALVANIZING SHALL INCLUDE A SP7 SWEEP BLAST ON THE GALVANIZED SURFACE. CARE SHALL BE TAKEN TO AVOID REMOVING AN EXCESS OF THE GALVANIZING. POST-TREATMENTS FOLLOWING HOT-DIP GALVANIZING PROCESS ARE NOT PERMITTED. COATING IMPERFECTIONS ARE TO BE REMEDIED AT GALVANIZER IN PREPARATION FOR PAINTING.

GALVANIZED PILE SHALL BE COATED WITH TWO COATS OF A SPRAY-APPLIED EPOXY PAINT, EACH COAT WITH A DRY FILM THICKNESS OF 8 TO 10 MILS. EPOXY PAINT PRODUCT SHALL BE INTERZONE 954 AS MANUFACTURED BY INTERNATIONAL PAINT COMPANY (COLOR GRAY FOR FIRST COAT, BLACK FOR SECOND COAT, NON-TINTED) OR EQUIVALENT PRODUCT WITH LONG-PROVEN HISTORY OF SUCCESS WHEN USED IN DUPLEX PAINT SYSTEMS FOR HARSH MARINE APPLICATIONS IN THE SPLASH ZONE.

THE CONTRACTOR SHALL SUBMIT INDEPENDENT THIRD PARTY TEST REPORTS FOR 10% OF THE PILING LENGTH DISTRIBUTED EVENLY THROUGHOUT THE PAINTING PROCESS, SHOWING THAT THE PILING WERE PREPARED AND COATED IN ACCORDANCE WITH THESE SPECIFICATIONS INCLUDING PRESENCE OF GALVANIZING, SURFACE PREPARATION, PAINT PRODUCT USED, AND SPECIFIED THICKNESS.

PILE COATING WILL NEED TO BE REMOVED IN AREAS TO FACILITATE FIELD WELDING. FOLLOWING FIELD WELDING, THE COATING SHALL BE REPAIRED BY THOROUGHLY CLEANING THE AREA, AND APPLYING SPLASH ZONE EPOXY IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

MISCELLANEOUS MATERIALS

UHMW: ALL ULTRA HIGH MOLECULAR WEIGHT (UHMW) POLYETHYLENE SHALL BE TIVAR UV RESISTANT OR APPROVED EQUAL, AND BE SUITABLE FOR THE MARINE ENVIRONMENT. UHMW COMPONENTS SHALL BE BLACK IN COLOR, UNLESS OTHERWISE NOTED.

MARINE-GRADE ADHESIVE: MARINE GRADE ADHESIVE SHALL BE SPLASH-ZONE AS MANUFACTURED BY PETTIT PAINT.

GEOTEXTILE FABRIC: MIRAFI RS280I AS MANUFACTURED BY TENCATE GEOSYNTHETICS.

HEADED CONCRETE ANCHORS: HEADED CONCRETE ANCHORS SHALL BE NELSON H4L ANCHORS AS MANUFACTURED BY STANLEY.

**>>>>CAUTION - CALL 811<<<<
UTILITY NOTIFICATION CENTER
BEFORE YOU DIG!**

WWW.CALL811.COM

Also, verify all underground utilities not located by the 811 service by using a commercial location service and call SPR Inspection Request Line (206) 684-7034.

NOTES:

- 1. THESE NOTES APPLY TO SHEETS S21, S31, S32, S41, S42, S43, S44, S45, & S46.

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Everett, Washington 98204
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NO.	REVISION - AS BUILT	DATE

REVIEWED: _____ DATE _____
PARK ENGINEER

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Seattle Parks & Recreation

LOWMAN BEACH PARK

**LOWMAN BEACH PARK
SHORELINE RESTORATION**

STRUCTURAL GENERAL NOTES

DESIGNED JAP	DATE 1/24/20
DRAWN DJO	
CHECKED CMH	SHEET 20 of 36
ORDINANCE NO. X	S12
SPECIFICATION NO. X	
SCALE NO SCALE	

STRUCTURAL STEEL SPECIAL INSPECTION

SPECIAL INSPECTION FOR STRUCTURAL STEEL SHALL BE ACCORDANCE WITH AISC 341, AISC 360, AND THE FOLLOWING INFORMATION.

TASK - INDICATES WHETHER TO OBSERVE OR PERFORM (OR BOTH) THE INSPECTION TASK.

DOC - THE INSPECTOR SHALL PREPARE REPORTS INDICATING THAT THE WORK HAS BEEN PERFORMED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.

O - OBSERVE THESE FUNCTIONS ON A RANDOM, DAILY BASIS, OPERATIONS NEED NOT BE DELAYED PENDING INSPECTIONS. FREQUENCY OF OBSERVATIONS SHALL BE ADEQUATE TO CONFIRM THAT THE WORK HAS BEEN PERFORMED IN ACCORDANCE WITH THE APPLICABLE DOCUMENTS.

P - PERFORM, FOR EACH JOINT OR MEMBER PRIOR TO THE FINAL ACCEPTANCE OF THE ITEM.

QC - TASKS INDICATED AS "QC" SHALL BE EXECUTED BY THE FABRICATOR AND ERECTOR IN ACCORDANCE WITH AISC 360 CHAPTER N

QA - TASKS INDICATED AS "QA" SHALL BE EXECUTED BY THE SPECIAL INSPECTOR IN ACCORDANCE WITH AISC 360 CHAPTER N.

CONCRETE

VERIFICATION AND INSPECTION	CONTINUOUS	PERIODIC	REFERENCED STANDARD (a)	IBC REFERENCE
1. REINFORCING BAR WELDING:				
a. VERIFY WELDABILITY OF REINFORCING BARS OTHER THAN ASTM A706	-	X	AWS D1.4 ACI 318: 26.6.4	-
b. INSPECT SINGLE-PASS FILLET WELDS, MAXIMUM 5/16"	-	X		
c. INSPECT ALL OTHER WELDS	X	-		
2. INSPECT ANCHORS CAST IN CONCRETE	-	X	ACI 318: 17.8.2	-
3. INSPECT ANCHORS POST-INSTALLED IN HARDENED CONCRETE MEMBERS 1				
a. ADHESIVE ANCHORS INSTALLED IN HORIZONTALLY OR UPWARDLY INCLINED ORIENTATIONS TO RESIST SUSTAINED TENSION LOADS	X	-	ACI 318: 17.8.2.4	-
b. MECHANICAL ANCHORS AND ADHESIVE ANCHORS NOT DEFINED IN 4a	-	X	ACI 318: 17.8.2	-

1. SPECIFIC REQUIREMENTS FOR SPECIAL INSPECTION SHALL BE INCLUDED IN THE RESEARCH REPORT FOR THE ANCHOR ISSUED BY AN APPROVED SOURCE IN ACCORDANCE WITH 17.8.2 IN ACI 318, OR OTHER QUALIFICATION PROCEDURES. WHERE SPECIFIC REQUIREMENTS ARE NOT PROVIDED, SPECIAL INSPECTION REQUIREMENTS SHALL BE SPECIFIED BY THE REGISTERED DESIGN PROFESSIONAL AND SHALL BE APPROVED BY THE BUILDING OFFICIAL PRIOR TO THE COMMENCEMENT OF WORK.

BOLTING

INSPECTION TASKS PRIOR TO BOLTING	QC	QA	REFERENCED STANDARD	IBC REFERENCE
INSPECTION TASKS PRIOR TO BOLTING				
MANUFACTURER'S CERTIFICATIONS AVAILABLE FOR FASTENER MATERIALS	O	P	AISC 360 CH. N	1705.2.1
FASTENERS MARKED IN ACCORDANCE WITH ASTM REQUIREMENTS	O	O		
PROPER FASTENERS SELECTED FOR THE JOINT DETAIL (GRADE, TYPE, BOLT LENGTH IF THREADS ARE TO BE EXCLUDED FROM SHEAR PLANE)	O	O		
PROPER BOLTING PROCEDURE SELECTED FOR JOINT DETAIL	O	O		
CONNECTING ELEMENTS, INCLUDING THE APPROPRIATE FAYING SURFACE CONDITION AND HOLE PREPARATION, IF SPECIFIED, MEET APPLICABLE REQUIREMENTS	O	O		
PRE-INSTALLATION VERIFICATION TESTING BY INSTALLATION PERSONNEL OBSERVED AND DOCUMENTED FOR FASTENER ASSEMBLIES AND METHODS USED	P	O		
PROPER STORAGE PROVIDED FOR BOLTS, NUTS, WASHERS AND OTHER FASTENER COMPONENTS	O	O		
INSPECTION TASKS DURING BOLTING	QC	QA	REFERENCED STANDARD	IBC REFERENCE
INSPECTION TASKS DURING BOLTING				
FASTENER ASSEMBLIES, OF SUITABLE CONDITION, PLACED IN ALL HOLES AND WASHERS (IF REQUIRED) ARE POSITIONED AS REQUIRED	O	O	AISC 360 CH. N	1705.2.1
JOINT BROUGHT TO THE SNUG-TIGHT CONDITION PRIOR TO THE PRETENSIONING OPERATION	O	O		
FASTENER COMPONENT NOT TURNED BY THE WRENCH PREVENTED FROM ROTATING	O	O		
FASTENERS ARE PRETENSIONED IN ACCORDANCE WITH THE RCSC SPECIFICATION, PROGRESSING SYSTEMATICALLY FROM THE MOST RIGID POINT TOWARD THE FREE EDGES	O	O		
INSPECTION TASKS AFTER BOLTING	QC	QA	REFERENCED STANDARD	IBC REFERENCE
INSPECTION TASKS AFTER BOLTING				
DOCUMENT ACCEPTANCE OR REJECTION OF BOLTED CONNECTIONS	P	P	AISC 360 CH. N	1705.2.1

WELDING

INSPECTION TASKS PRIOR TO WELDING	QC	QA	REFERENCED STANDARD	IBC REFERENCE
INSPECTION TASKS PRIOR TO WELDING				
WELDING PROCEDURE SPECIFICATIONS (WPS) AVAILABLE	P	P	AISC 360 CH. N & AWS D1.1	1705.2.1
MANUFACTURER CERTIFICATIONS FOR WELDING CONSUMABLES AVAILABLE	P	P		
MATERIAL IDENTIFICATION (TYPE/GRADE)	O	O		
WELDER IDENTIFICATION SYSTEM 1	O	O		
FIT-UP OF GROOVE WELDS (INCLUDING JOINT GEOMETRY), JOINT PREPARATION, DIMENSIONS (ALIGNMENT, ROOT OPENING, ROOT FACE, BEVEL), CLEANLINESS (CONDITION OF STEEL SURFACES), TACKING (TACK WELD QUALITY AND LOCATION), BACKING TYPE AND FIT (IF APPLICABLE)	O	O		
CONFIGURATION AND FINISH OF ACCESS HOLES	O	O		
FIT-UP OF FILLET WELDS, DIMENSIONS (ALIGNMENT, GAPS AT ROOT), CLEANLINESS (CONDITION OF STEEL SURFACES), TACKING (TACK WELD QUALITY AND LOCATION)	O	O		
CHECK WELDING EQUIPMENT	O	-		
INSPECTION TASKS DURING WELDING	QC	QA	REFERENCED STANDARD	IBC REFERENCE
INSPECTION TASKS DURING WELDING				
USE OF QUALIFIED WELDERS	O	O	AISC 360 CH. N & AWS D1.1	1705.2.1
CONTROL AND HANDLING OF WELDING CONSUMABLES, PACKAGING, EXPOSURE CONTROL	O	O		
NO WELDING OVER CRACKED TACK WELDS	O	O		
ENVIRONMENTAL CONDITIONS, WIND SPEED WITHIN LIMITS, PRECIPITATION AND TEMPERATURE	O	O		
WPS FOLLOWED, SETTINGS ON WELDING EQUIPMENT, TRAVEL SPEED, SELECTED WELDING MATERIALS, SHIELDING GAS TYPE/FLOW RATE, PREHEAT APPLIED, INTERPASS TEMPERATURE MAINTAINED (MIN / MAX), PROPER POSITION (F, V, H, OH)	O	O		
WELDING TECHNIQUES, INTERPASS AND FINAL CLEANING, EACH PASS WITHIN PROFILE LIMITATIONS, EACH PASS MEETS QUALITY REQUIREMENTS	O	O		
INSPECTION TASKS AFTER WELDING	QC	QA	REFERENCED STANDARD	IBC REFERENCE
INSPECTION TASKS AFTER WELDING				
WELDS CLEANED	O	O	AISC 360 CH. N & AWS D1.1	1705.2.1
SIZE, LENGTH AND LOCATION OF WELDS	P	P		
WELDS MEET VISUAL ACCEPTANCE CRITERIA, CRACK PROHIBITION, WELD / BASE-METAL FUSION, CRATER CROSS SECTION, WELD PROFILES, WELD SIZE, UNDERCUT, POROSITY	P	P		
ARC STRIKES	P	P		
K-AREA 2	P	P		
BACKING REMOVED AND WELD TABS REMOVED (IF REQUIRED)	P	P		
REPAIR ACTIVITIES	P	P		
DOCUMENT ACCEPTANCE OR REJECTION OF WELDED JOINT OR MEMBER	P	P		

- THE FABRICATOR OR ERECTOR, AS APPLICABLE, SHALL MAINTAIN A SYSTEM BY WHICH A WELDER WHO HAS WELDED A JOINT OR MEMBER CAN BE IDENTIFIED. STAMPS, IF USED, SHALL BE THE LOW-STRESS TYPE.
- WHEN WELDING OF DOUBLER PLATES, CONTINUITY PLATES OR STIFFENERS HAS BEEN PERFORMED IN THE K-AREA, VISUALLY INSPECT THE WEB K-AREA FOR CRACKS WITHIN 3 INCHES OF THE WELD.

TESTS

CONCRETE

- VERIFICATION OF SPECIFIED CONCRETE COMPRESSIVE STRENGTH, f_c , IN ACCORDANCE WITH ACI 318-14 SECTION 26.12.
- VERIFICATION OF SPECIFIED AIR CONTENT, SLUMP, AND TEMPERATURE IN ACCORDANCE WITH ACI 318-14 SECTION 26.12 AT TIMES FRESH CONCRETE IS SAMPLED.

PAYMENT

- THE OWNER SHALL PAY FOR SPECIAL INSPECTION.
- CONTRACTOR SHALL COORDINATE TO ENSURE ALL CONTRACT REQUIRED INSPECTIONS ARE PERFORMED INCLUDING THOSE REQUIRED BY BUILDING DEPARTMENT PERMITS. ALL SPECIFIED INSPECTION AND TESTING SHALL BE PERFORMED BY CONTRACTOR AT NO ADDITIONAL COST.

COORDINATION/SUBMITTALS

- TESTING AND INSPECTION RESULTS SHALL BE SUBMITTED TO THE OWNER.
- CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL INSPECTION AND TESTING ACTIVITIES.

ADDITIONAL REQUIREMENTS

- IBC AND SBC REQUIREMENTS APPLY, INCLUDING SBC SECTION 1704. NOTE SPECIAL INSECTIONS AT A FABRICATOR ARE NOT REQUIRED IF A FABRICATOR IS PRE-QUALIFIED (SBC 1704.2.5.1)

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NOTES:

- THESE NOTES APPLY TO SHEETS S21, S31, S32, S41, S42, S43, S44, S45, & S46.



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NO.	REVISION - AS BUILT	DATE

REVIEWED: _____ DATE _____
PARK ENGINEER

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LOWMAN BEACH PARK

LOWMAN BEACH PARK SHORELINE RESTORATION

SPECIAL INSPECTION SCHEDULE

DESIGNED JAP	DATE 1/24/20
DRAWN DJO	
CHECKED CMH	SHEET 21 of 36
ORDINANCE NO. X	S21
SPECIFICATION NO. X	
SCALE NO SCALE	

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NOTES:

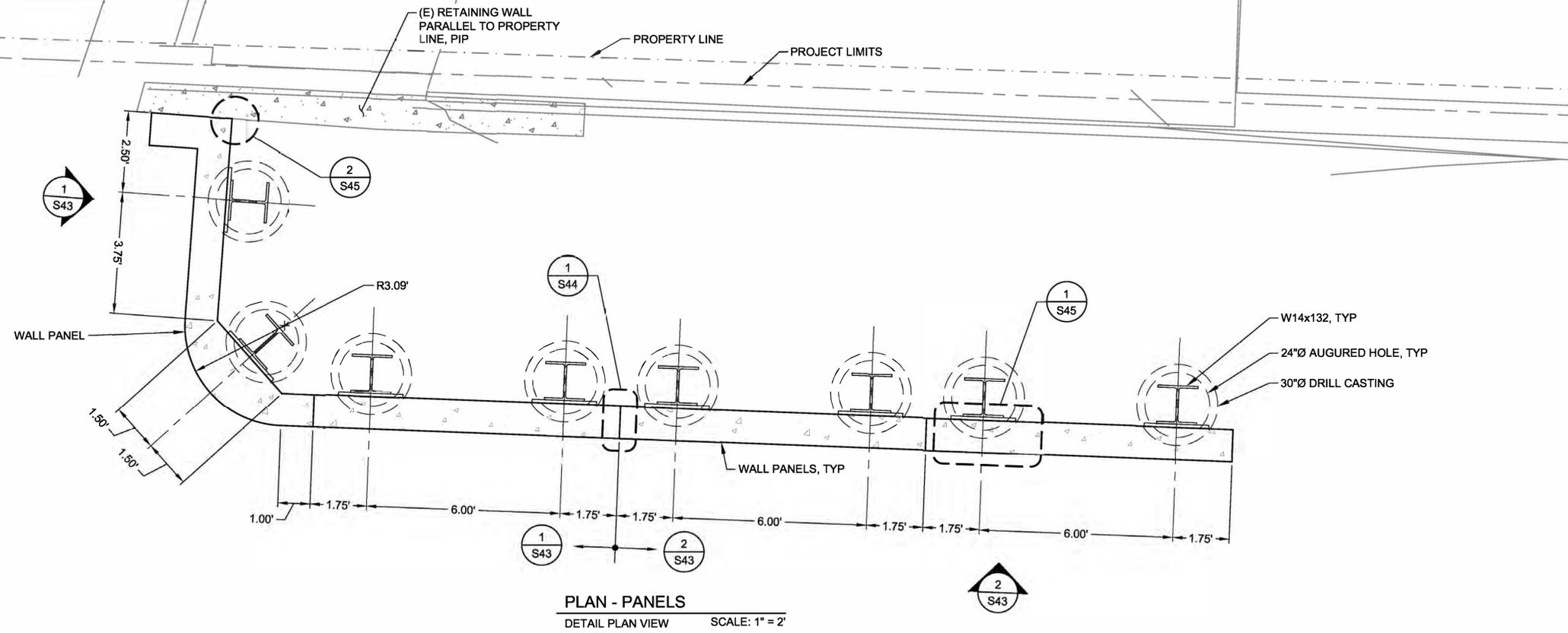
- 1. VERTICAL DATUM NAVD 88

ABBREVIATIONS:

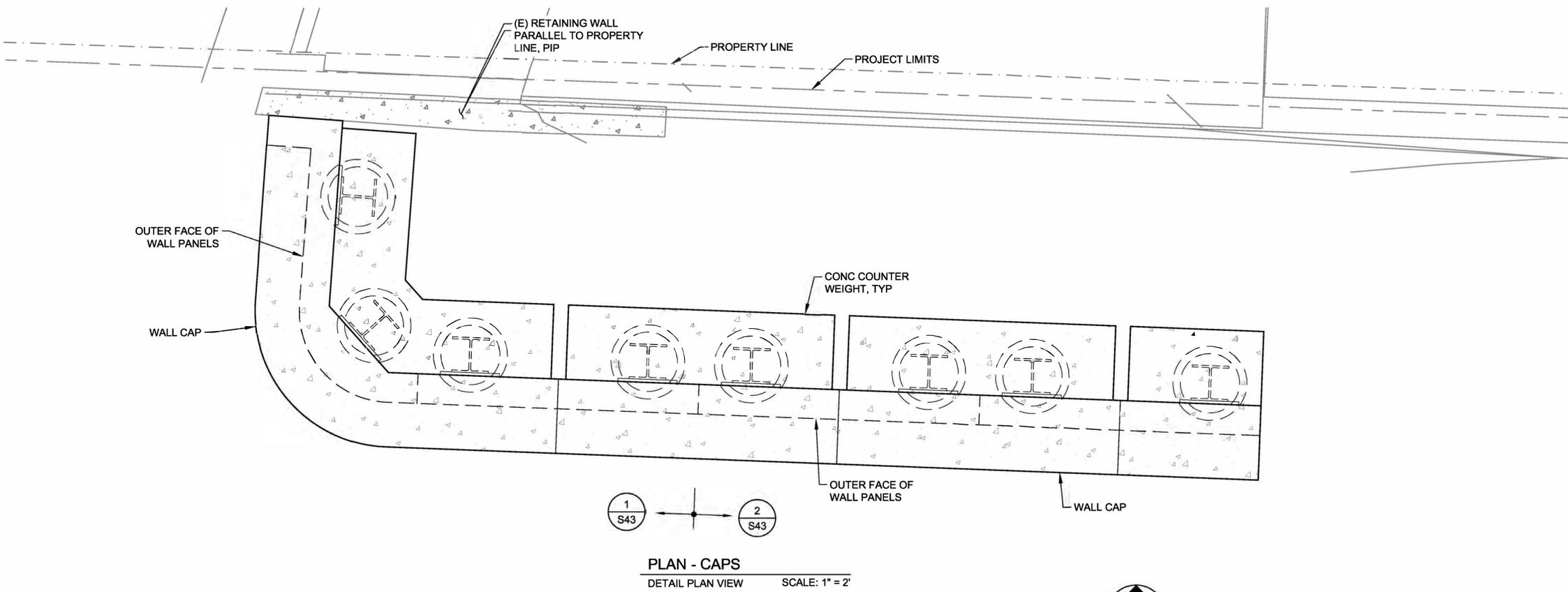
PIP	PROTECT IN PLACE
(E)	EXISTING
FT	FEET
TYP	TYPICAL

LEGEND:

	PROPERTY LINE
	PROJECT LIMITS
	CONCRETE



PLAN - PANELS
DETAIL PLAN VIEW SCALE: 1" = 2'



PLAN - CAPS
DETAIL PLAN VIEW SCALE: 1" = 2'



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Everett, Washington 98204
Ph: 425-741-3000
www.reidmiddleton.com

3		
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1		
NO.	REVISION	DATE

REVIEWED: _____ DATE _____
PARK ENGINEER

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SEATTLE, WA 98107
OFFICE - 206.789.9658
WWW.ESASSOC.COM



Seattle Parks & Recreation

LOWMAN BEACH PARK

LOWMAN BEACH PARK SHORELINE RESTORATION

CAP AND PANEL PLANS

DESIGNED JAP	DATE 1/24/20
DRAWN DJO	SHEET 23 OF 36
CHECKED CMH	S32
ORDINANCE NO. X	
SPECIFICATION NO. X	
SCALE AS NOTED	

Jan 23, 2020 - 7:51pm jpadovac H:\2017\2017\004 Seattle Parks Lowman Beach Drafting\Design - CAD\4704-S32.dwg Layout Name: S32

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NOTES:

1. VERTICAL DATUM NAVD88

ABBREVIATIONS:

APPROX	APPROXIMATELY
CL	CENTERLINE
EL	ELEVATION
(E)	EXISTING
OC	ON CENTER
PL	PLATE
TYP	TYPICAL

LEGEND:

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 www.reidmiddleton.com

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NO.	REVISION - AS BUILT	DATE

REVIEWED: PARK ENGINEER DATE
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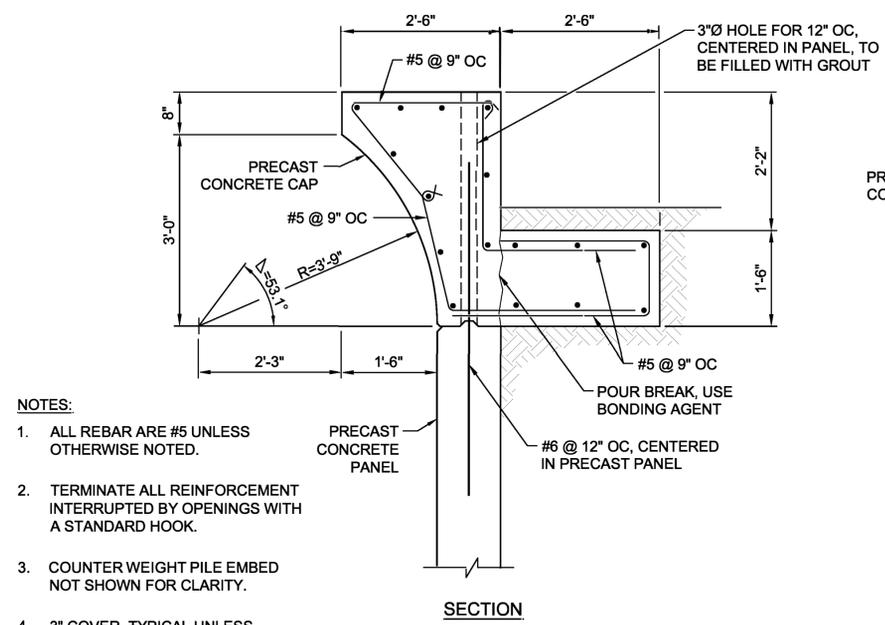
Seattle Parks & Recreation

LOWMAN BEACH PARK

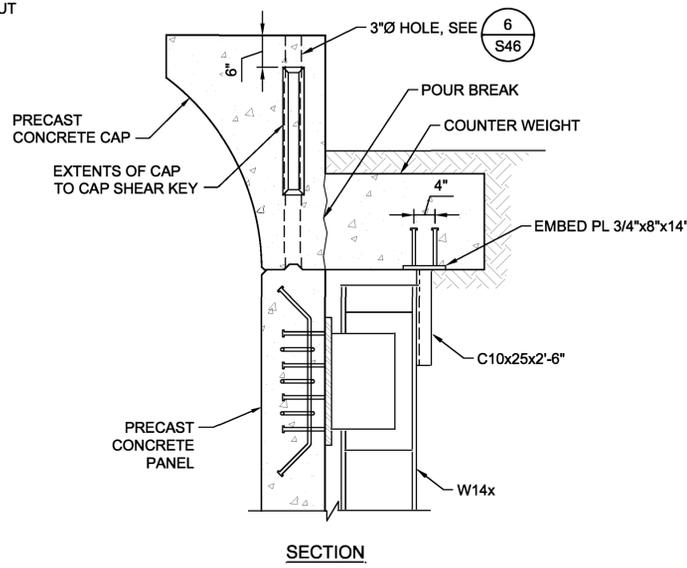
LOWMAN BEACH PARK SHORELINE RESTORATION

WALL SECTIONS AND DETAILS 5

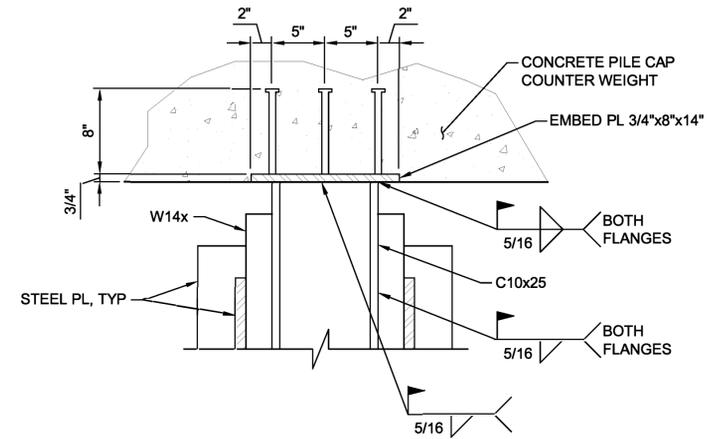
DESIGNED JAP	DATE 1/24/20
DRAWN DJO	SHEET 29 OF 36
CHECKED CMH	S46
ORDINANCE NO. X	SCALE AS NOTED
SPECIFICATION NO. X	



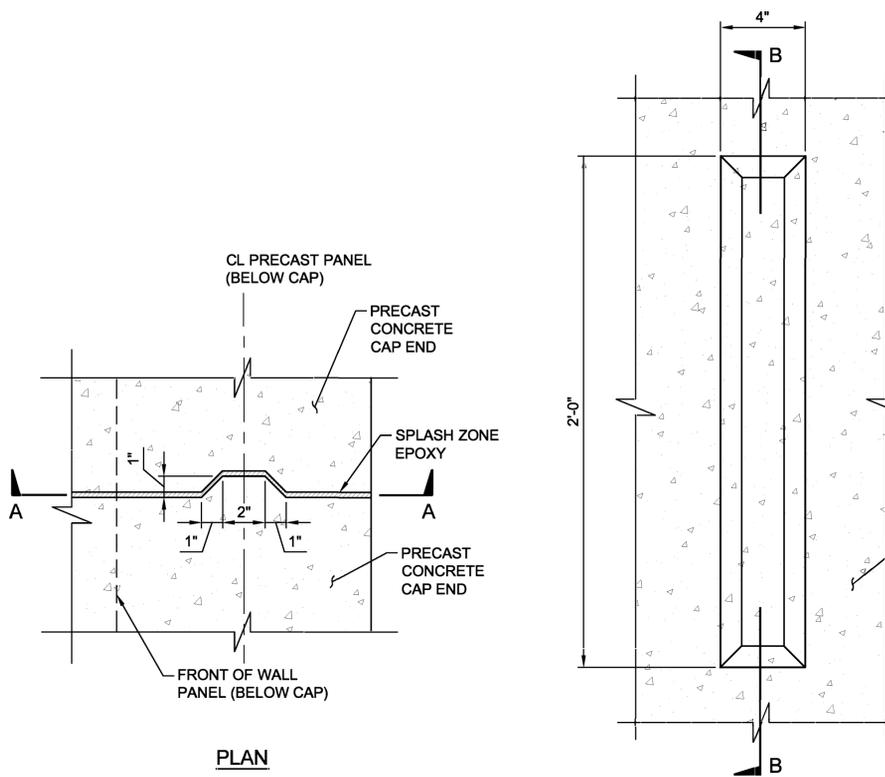
1 CONCRETE CAP REINFORCEMENT
 S46 SCALE: 3/4" = 1'-0"



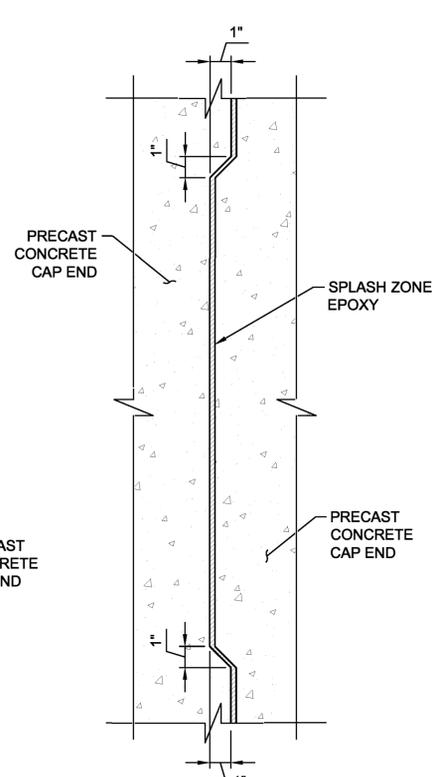
2 CONCRETE CAP, PRECAST PANEL AND PILE CONNECTION
 S46 SCALE: 3/4" = 1'-0"



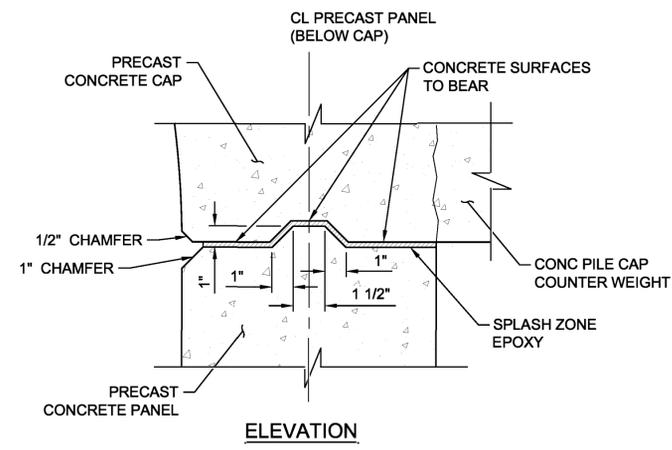
3 PILE TO COUNTER WEIGHT CONNECTION
 S46 PLAN SCALE: 1 1/2" = 1'-0"



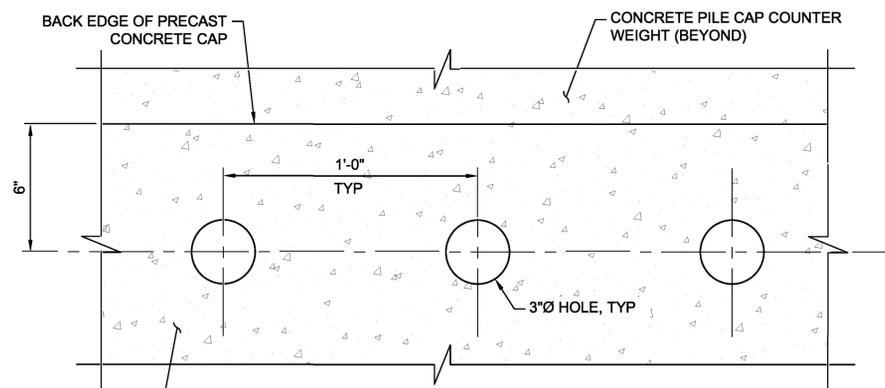
4 CONCRETE CAP SHEAR KEY
 S46 PLAN SCALE: 3" = 1'-0"



SECTION A-A
SECTION B-B



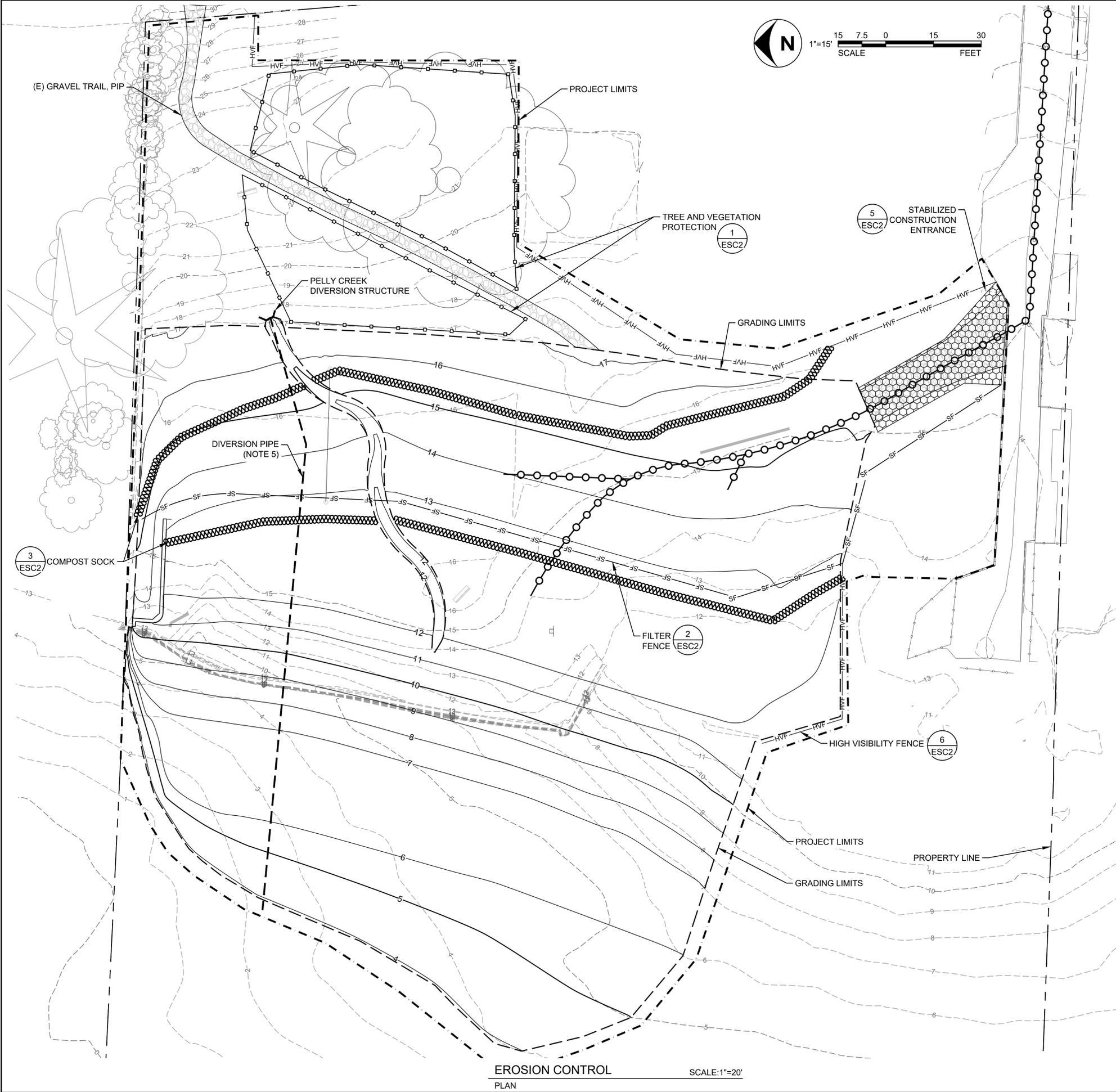
5 CONCRETE CAP TO PRECAST PANEL SHEAR KEY
 C11 PLAN SCALE: 3" = 1'-0"



6 CONCRETE CAP HOLES
 S46 PLAN SCALE: 3" = 1'-0"

Jun 23, 2020 7:54pm jpadvorce H:\24w\2017\004 Seattle Parks Lowman Beach Drafting\Design - CAD\4704-S46.dwg Layout Name: S46

PLOT DATE: 1/30/2020 7:28:10 PM PLOTTED BY: PABLO QUIROGA FILE NAME: \\sfb-fie\p1\PROJECTS\SEA\16xxxx\160292.00 Lowman Beach Park\08_CADD\wg\ESC1_TESC_PLAN.dwg



NOTES:

1. THIS DRAWING IS FOR GENERAL GUIDANCE ONLY. IT IS THE INTENT OF THIS PLANS AND SPECIFICATIONS TO ENSURE THAT SEDIMENT AND SEDIMENT-LADEN WATER DOES NOT LEAVE THE SITE. THE CONTRACTOR SHALL USE ALL AVAILABLE MEANS TO ACHIEVE THIS RESULT.
2. CONTRACTOR SHALL SUBMIT TO THE CLIENT REPRESENTATIVE AND THE PROJECT ENGINEER A TESC PLAN FOR APPROVAL
3. THE IMPLEMENTATION OF THE TESC PLAN AND THE CONSTRUCTION, MAINTENANCE, REPLACEMENT AND UPGRADING OF THE TESC PLAN FACILITIES IS THE RESPONSIBILITY OF THE CONTRACTOR UNTIL ALL CONSTRUCTION IS COMPLETED AND APPROVED AND VEGETATION/LANDSCAPING IS ESTABLISHED.
4. ALL WORK IN PELLY CREEK SHALL BE PERFORMED DURING THE IN-WATER WORK PERIOD SPECIFIED BY PERMIT.
5. THE LAYOUT DEPICTS A POTENTIAL APPROACH FOR TEMPORARY STREAM DIVERSION. TEMPORARY STREAM DIVERSION PLAN SHALL BE DEVELOPED BY THE CONTRACTOR AND SUBMITTED TO THE ENGINEER FOR CONCURRENCE, PER SPECIFICATION.

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Also, verify all underground utilities not located by the 811 service by using a commercial location service and call SPR Inspection Request Line (206) 684-7034.

LEGEND:

- PROPERTY LINE
- PROJECT LIMITS
- (E) CONTOUR, MAJOR
- (E) CONTOUR, MINOR
- (N) CONTOUR, MAJOR
- (N) CONTOUR, MINOR
- GRADING LIMITS
- ACCESS ROUTE
- COMPOST SOCK
- FILTER FENCE
- HIGH VISIBILITY FENCE
- TREE AND VEGETATION PROTECTION
- STABILIZED CONSTRUCTION ENTRANCE

3		
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1		
NO.	REVISION - AS BUILT	DATE

REVIEWED: _____ DATE _____
PARK ENGINEER

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90% NOT A PROFESSIONAL ENGINEER

KEBERT T. PATRILLO
STATE OF WASHINGTON
REGISTERED PROFESSIONAL ENGINEER
42108

Seattle Parks & Recreation

LOWMAN BEACH PARK

LOWMAN BEACH PARK SHORELINE RESTORATION

TESC PLAN

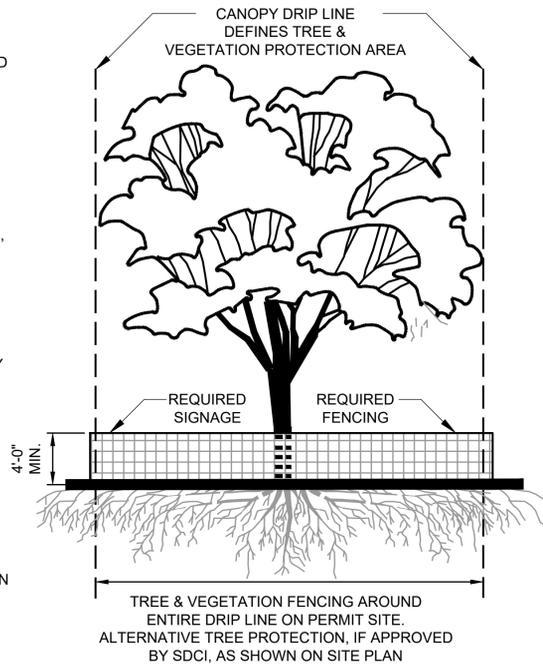
DESIGNED PDQ	DATE 01/24/2020
DRAWN HKS	
CHECKED BTB	SHEET 30 OF 36

ORDINANCE NO. X	ESC1
SPECIFICATION NO. X	
SCALE AS NOTED	

EROSION CONTROL PLAN SCALE: 1"=20'

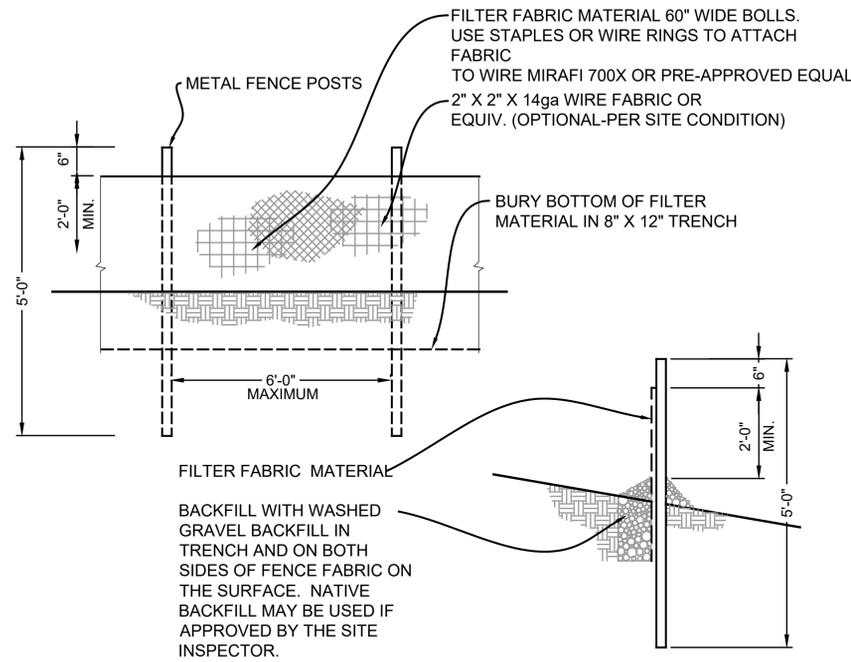
TREE PROTECTION FENCING AND SIGN

- CHAIN LINK, WIRE MESH, OR SIMILAR OPEN RIGID MATERIAL (NO PLYWOOD)
- MUST BE INSTALLED PRIOR TO DEMOLITION OR GROUND DISTURBANCE
- KEPT IN PLACE FOR THE DURATION OF CONSTRUCTION
- NO SOIL DISTURBANCE OR ACTIVITY ALLOWED WITHIN FENCED AREA: MATERIAL STORAGE/STOCKPILING, PARKING, EXCAVATION, DUMPING, OR WASHING
- MODIFICATIONS OF THESE REQUIREMENTS BY APPROVAL OF SDCI PLANNER ONLY
- IF ROOTS GREATER THAN 2 INCH FOUND OUTSIDE OF FENCING, PROTECT BY HAND EXCAVATION AND, IF NECESSARY, CUT CLEANLY AND KEEP MOIST
- USE 3 INCHES OR DEEPER WOOD CHIP MULCH OUTSIDE FENCED AREAS TO PROTECT FEEDER ROOTS



VEGETATION PROTECTION

- ORANGE MESH OR SIMILAR OPEN MATERIAL
- MINIMIZE CONSTRUCTION ZONE
- PROTECT VEGETATION OUTSIDE CONSTRUCTION ZONE WITH FENCING AS SHOWN
- USE 3 INCHES OR DEEPER WOOD CHIP MULCH OUTSIDE FENCED AREAS TO PROTECT FEEDER ROOTS



NOTES:

GENERAL:

- THESE PLANS ARE FOR GENERAL GUIDANCE ONLY. IT IS THE INTENT OF THESE PLANS AND SPECIFICATIONS TO ENSURE THAT SEDIMENT AND SEDIMENT-LADEN WATER DOES NOT LEAVE THE SITE. THE CONTRACTOR SHALL USE ALL AVAILABLE MEANS TO ACHIEVE THIS RESULT.
- CONTRACTOR SHALL SUBMIT A CONSTRUCTION STORMWATER GENERAL PERMIT (CSWGP) TO THE DEPARTMENT OF ECOLOGY FOR APPROVAL PRIOR TO CONSTRUCTION.
- THE IMPLEMENTATION OF THE ESC PLAN AND THE CONSTRUCTION, MAINTENANCE, REPLACEMENT AND UPGRADING OF THE ESC PLAN FACILITIES IS THE RESPONSIBILITY OF THE CONTRACTOR UNTIL ALL CONSTRUCTION IS COMPLETED AND APPROVED AND VEGETATION LANDSCAPING IS ESTABLISHED.

BEFORE CONSTRUCTION:

- THE ESC PLAN FACILITIES SHOWN ON ESC1 AND THIS SHEET MUST BE CONSTRUCTED IN CONJUNCTION WITH ALL CLEARING AND GRADING ACTIVITIES, AND IN SUCH A MANNERS AS TO ENSURE THAT SEDIMENT AND SEDIMENT LADEN WATER DO NOT ENTER THE PUGET SOUND, DRAINAGE SYSTEM, ROADWAYS OR VIOLATE APPLICABLE WATER STANDARDS.
- STABILIZED CONSTRUCTION ENTRANCE SHALL BE INSTALLED (WHERE NECESSARY) AT THE BEGINNING OF CONSTRUCTION AND MAINTAINED FOR THE DURATION OF THE PROJECT. ADDITIONAL MEASURES SUCH AS WHEEL WASHES OR HAND BRUSHING, MAY ALSO BE NECESSARY TO ENSURE THAT ALL PAVED AREAS ARE KEPT CLEAN FOR THE DURATION OF THE PROJECT.

DURING CONSTRUCTION:

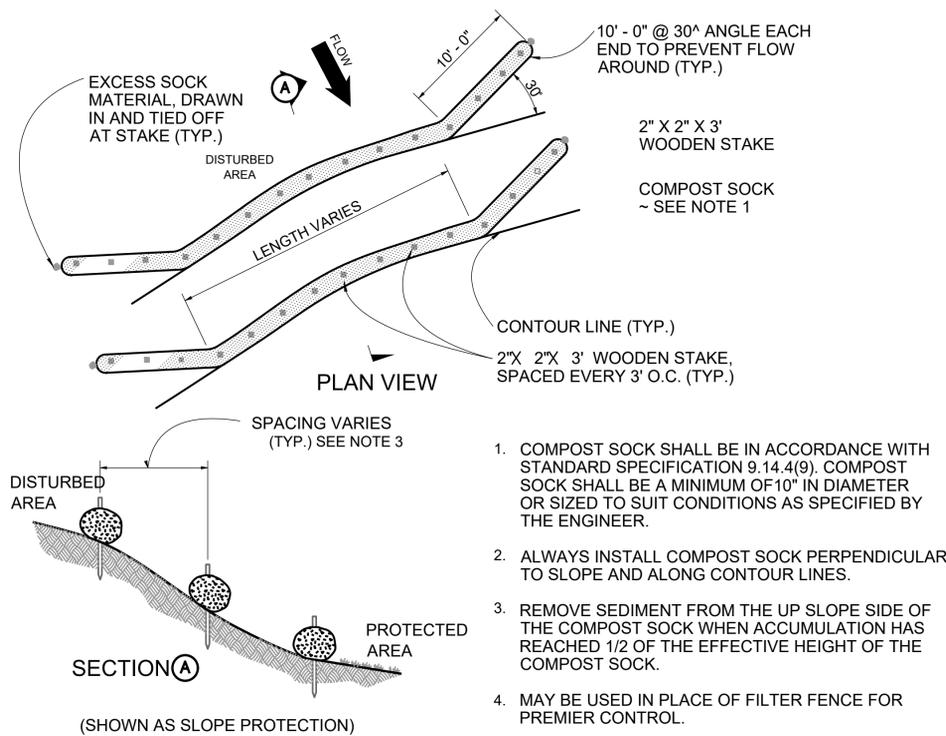
- THE ESC PLAN FACILITIES SHOWN ON THIS SHEET ARE THE MINIMUM REQUIREMENTS FOR ANTICIPATED SITE CONDITIONS DURING THE CONSTRUCTION PERIOD. THESE ESC PLAN FACILITIES SHALL BE UPGRADED AS NEEDED FOR UNEXPECTED STORM EVENTS AND TO ENSURE THAT SEDIMENT AND SEDIMENT-LADEN WATER DO NOT LEAVE THE SITE.
- THE ESC PLAN FACILITIES SHALL BE INSPECTED BY THE CONTRACTOR AND MAINTAINED AS NECESSARY TO ENSURE THEIR CONTINUED FUNCTION.
- ANY STOCKPILED SOIL MUST BE SECURED AND PROTECTED THROUGHOUT THE PROJECT WITH SOIL STABILIZATION MEASURES INCLUDING SEDIMENT BARRIERS AND PLASTIC SHEETING.

AFTER CONSTRUCTION:

- CONTRACTOR SHALL REMOVE ALL ESC PLAN FACILITIES AFTER SITE IS STABILIZED AND UPON APPROVAL OF THE PROJECT ENGINEER.

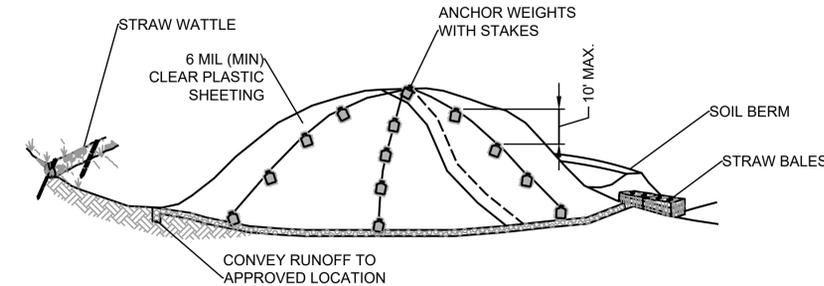
1 TREE AND VEGETATION PROTECTION NTS
ESC1 DETAIL

2 FILTER FENCE NTS
ESC1 DETAIL

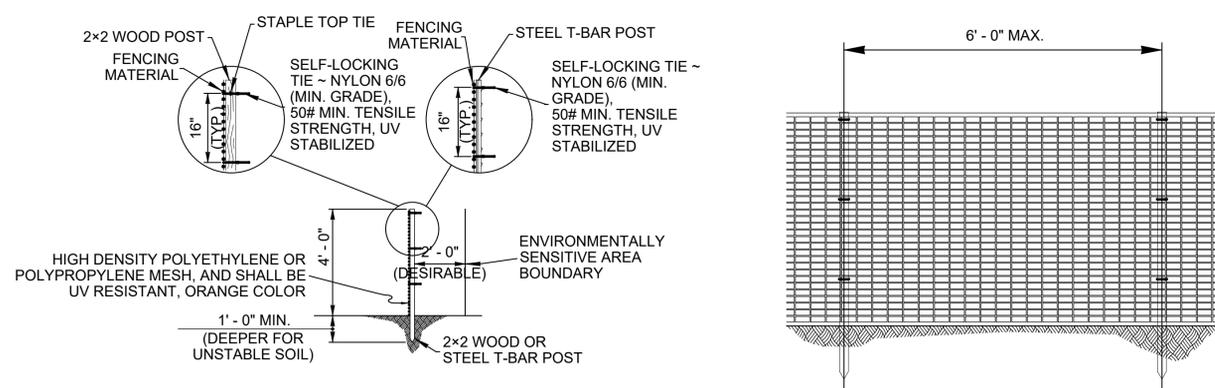
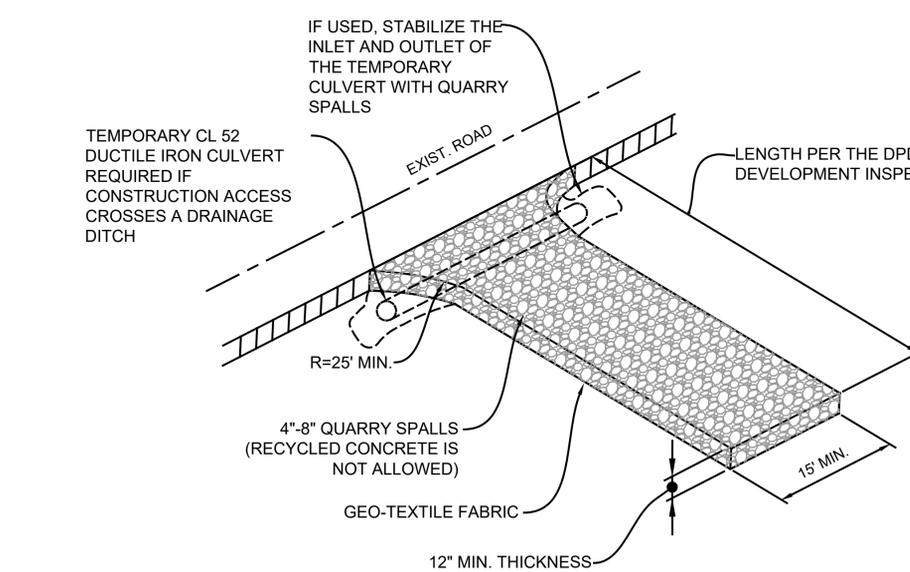


3 COMPOST SOCK NTS
ESC1 DETAIL

5 CONSTRUCTION ENTRANCE NTS
ESC1 DETAIL



4 STOCKPILE COVERING NTS
DETAIL



6 HIGH VISIBILITY FENCE NTS
ESC1 DETAIL

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3		
2		
1		
NO.	REVISION - AS BUILT	DATE

REVIEWED: _____ DATE _____
PARK ENGINEER

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90% NOT A PROFESSIONAL ENGINEER

KEBERT T. FAITH
STATE OF WASHINGTON
REGISTERED PROFESSIONAL ENGINEER
42108

Seattle Parks & Recreation

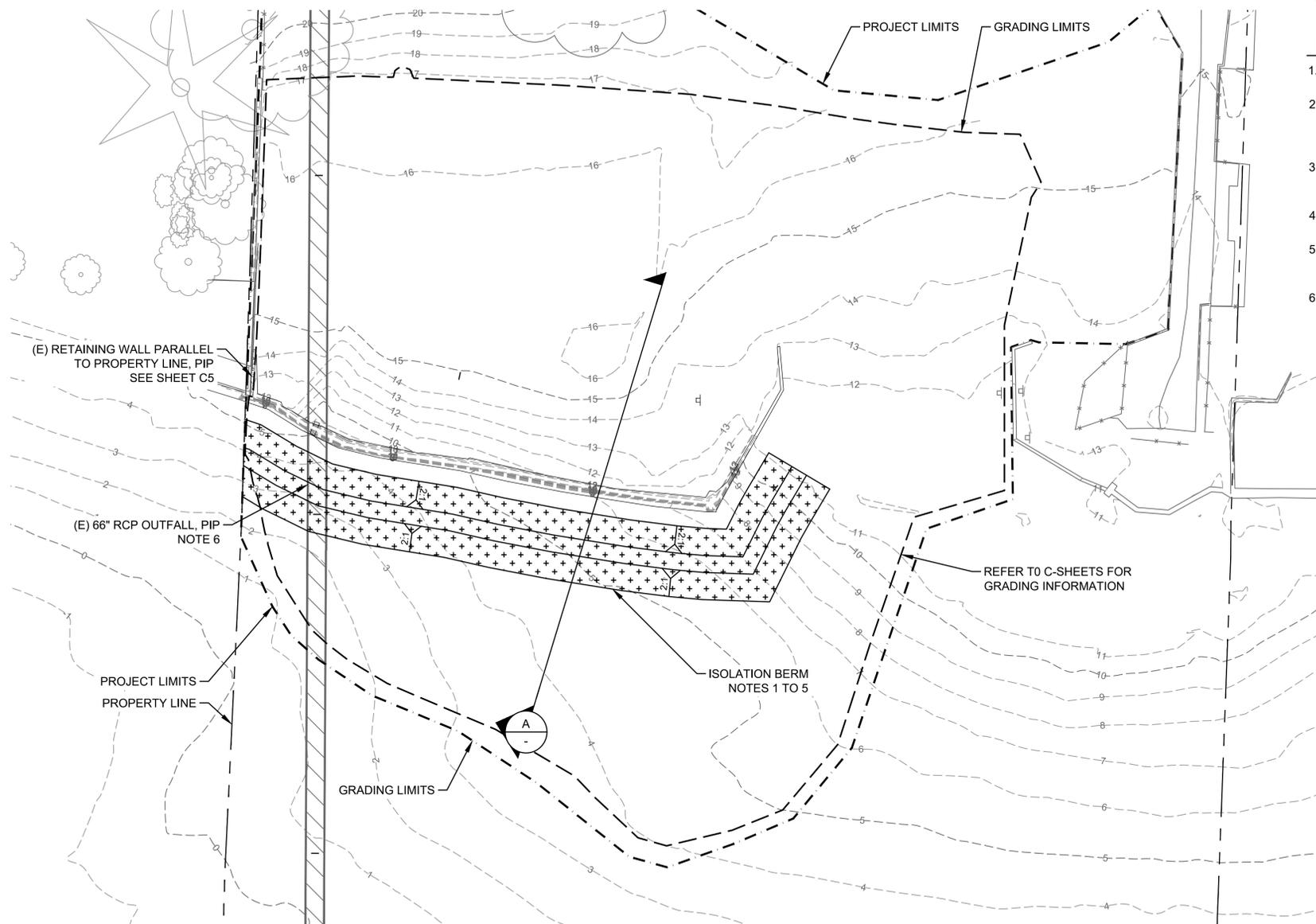
**LOWMAN BEACH PARK
LOWMAN BEACH PARK
SHORELINE RESTORATION**

TESC DETAILS

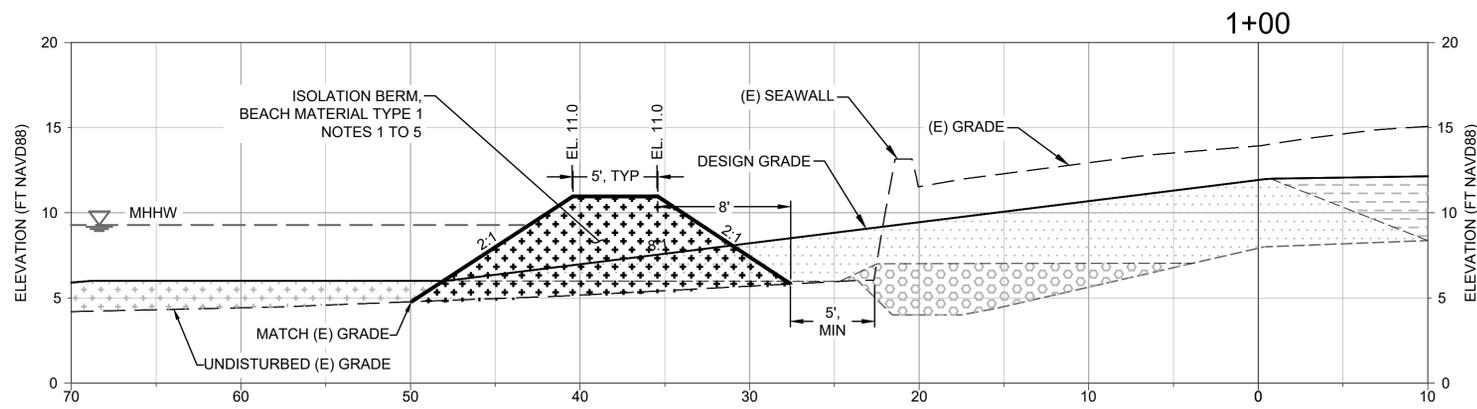
DESIGNED PDQ	DATE 01/24/2020
DRAWN HKS	SHEET 31 OF 36
CHECKED BTB	
ORDINANCE NO. X	ESC2
SPECIFICATION NO. X	
SCALE AS NOTED	

PLOT DATE: 1/30/2020 7:28:14 PM PLOTTED BY: PABLO QUIROGA FILE NAME: \\sfb-fie01\PROJECTS\SEA\160000\160000\160000\160000\CADD\dwg\ESC2_TESC_DETAILS.dwg

PLOT DATE: 1/30/2020 7:28:38 PM PLOTTED BY: PABLO QUIROGA FILE NAME: \\sfc-fie01\PROJECTS\SEA\16xxx\160292.00 Lowman Beach Park\08_CADD\wg\ESC3 TEMPORARY ISOLATION BERM.dwg



ISOLATION BERM
SCALE: 1:20
PLAN



ISOLATION BERM
SCALE: 1:5
TYPICAL SECTION



NOTES:

1. CONSTRUCT TEMPORARY ISOLATION BERM USING BERM GRAVEL TYPE 1.
2. TEMPORARY ISOLATION BERM TOP ELEVATION SHALL BE 11.0 FT TO PROVIDE WORK AREA ISOLATION DURING MOST WATER SURFACE ELEVATION CONDITIONS DURING THE CONSTRUCTION WINDOW.
3. TEMPORARY ISOLATION BERM MATERIAL SHALL BE REDISTRIBUTED AND INCORPORATED INTO THE BERM FOLLOWING WORK AREA ISOLATION.
4. DO NOT PERFORM WORK ON THE TEMPORARY BERM OR THE ISOLATED AREA DURING TIDES HIGHER THAN 8.0 FT.
5. ISOLATION BERM IS NOT EXPECTED TO PREVENT TIDAL INUNDATION AND DRAINAGE OF WATER FROM BEHIND THE BERM TO THE SOUND MAY BE REQUIRED.
6. CONTRACTOR SHALL DEVELOP PIPE PROTECTION PLAN FOR REVIEW AND APPROVAL BY UTILITY OWNER AND SUBMIT TO CITY PRIOR TO CONSTRUCTION. CONSTRUCTION EQUIPMENT MAY NOT TRANSVERSE PIPE WITHOUT PRE-APPROVAL OF PIPE PROTECTION MEASURES.

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BEFORE YOU DIG!**

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NOTES:

ABBREVIATIONS:

PIP	PROTECT IN PLACE
(E)	EXISTING
(N)	NEW
FT	FEET

LEGEND:

	PROPERTY LINE
	PROJECT LIMITS
	(E) CONTOUR, MAJOR
	(E) CONTOUR, MINOR
	GRADING LIMITS
	(E) FENCE
	(E) 66" PIPE
	(E) GRADE, SECTION
	(N) GRADE, SECTION
	(N) SUBGRADE
	BEACH FILL TYPE 1
	BEACH FILL TYPE 2
	BEACH FILL TYPE 3
	RECLAIMED MATERIAL

3		
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NO.	REVISION - AS BUILT	DATE

REVIEWED: _____ DATE _____
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90% NOT FOR CONSTRUCTION
KERRY T. FAITH, P.E.
STATE OF WASHINGTON
REGISTERED PROFESSIONAL ENGINEER
42108

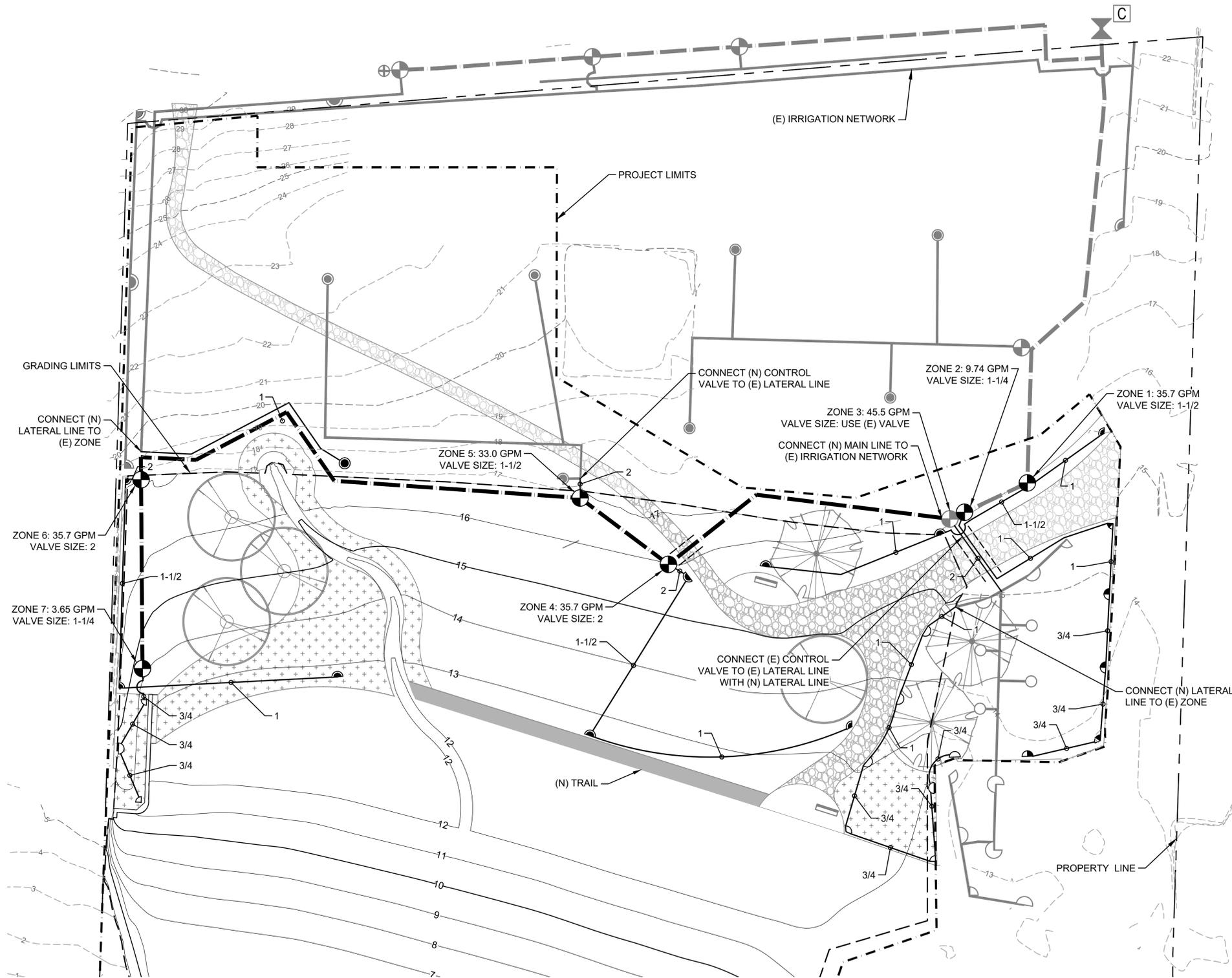
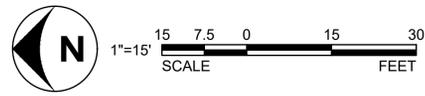
Seattle Parks & Recreation

LOWMAN BEACH PARK

LOWMAN BEACH PARK SHORELINE RESTORATION

TEMPORARY ISOLATION BERM

DESIGNED PDQ	DATE 01/24/2020
DRAWN HKS	SHEET 32 OF 36
CHECKED BTB	
ORDINANCE NO. X	ESC3
SPECIFICATION NO. X	
SCALE AS NOTED	



IRRIGATION NOTES:

1. SEE SHEET L2 FOR IRRIGATION SCHEDULE AND DETAILS.
2. SEE SHEET L3 FOR LANDSCAPE PLAN.
3. THE CONTRACTOR SHALL INSPECT THE SITE AND VERIFY CONDITIONS AND DIMENSIONS PRIOR TO CONSTRUCTION. NOTIFY OWNER'S REPRESENTATIVE IMMEDIATELY OF ANY DISCREPANCIES AFFECTING SYSTEM PERFORMANCE PRIOR TO BEGINNING OF WORK.
4. INSTALL IRRIGATION SYSTEM IN ACCORDANCE WITH ALL APPLICABLE CODES AND ORDINANCES.
5. IRRIGATION LINES SHOWN WITHIN PAVED AREAS ARE FOR GRAPHIC CLARITY ONLY. IRRIGATION HEADS AND PIPES ARE TO BE PLACED WITHIN LANDSCAPED AREAS WITH THEIR LOCATIONS MODIFIED AS REQUIRED TO AVOID PLANT MATERIALS, UTILITIES, AND OTHER OBSTRUCTIONS. PLACE LINES IN COMMON TRENCHES WHERE POSSIBLE.
6. ALL VALVE BOXES WILL BE PLACED IN A MANNER WHICH FACILITATES ACCESS FOR MAINTENANCE. LOCATE VALVE BOXES IN THE PLANTING AREAS WHEREVER POSSIBLE. SIZE BOXES TO ACCOMMODATE COMPLETE VALVE ASSEMBLY INCLUDING UNIONS.
7. ALL COMPONENTS OF IRRIGATION SYSTEM SHALL BE INSTALLED AND ADJUSTED TO PROVIDE ADEQUATE COVERAGE AND ELIMINATE OVERSPRAY ONTO BUILDINGS, ROADS, AND WALKWAYS. CONTRACTOR IS RESPONSIBLE FOR PROVIDING A COMPLETE WORKING SYSTEM.
8. CONTRACTOR SHALL VERIFY STATIC PRESSURE AT APPROXIMATELY 50 PSI AT THE P.O.C. PRIOR TO COMMENCING WORK. NOTIFY OWNER'S REPRESENTATIVE IMMEDIATELY IF ACTUAL FIELD DATA DIFFERS FROM THIS INFORMATION.
9. BASED ON AVAILABLE INFORMATION THE EXISTING WATER METER IS ASSUMED TO BE 2 INCHES IN SIZE. CONTRACTOR IS RESPONSIBLE FOR VERIFYING THIS IN THE FIELD AND NOTIFYING THE ENGINEER IF OTHERWISE.
10. THIS SYSTEM REQUIRES A MINIMUM STATIC PRESSURE OF 30 PSI AND A MAXIMUM FLOW OF 120 GPM AT POINT-OF-CONNECTION. HEAD LAYOUT AND ZONES ARE BASED ON THIS DATA AND DATA SHOWN IN IRRIGATION SCHEDULE. NOTIFY THE OWNER'S REPRESENTATIVE PRIOR TO COMMENCING WORK IF ACTUAL FIELD DATA DIFFERS FROM THIS INFORMATION.
11. ADD QUICK COUPLING VALVES PER THE SPECIFICATIONS.
12. IRRIGATION LATERALS ARE SIZED AT VALVE AND CONTINUING IN DIRECTION OF FLOW. REDUCTIONS IN PIPE SIZE ARE LABELED BEGINNING DOWNSTREAM OF NEAREST FITTING. ALL LATERALS ARE MINIMUM 3/4" OR SAME SIZE AS NEAREST UPSTREAM PIPE.
13. INSTALL ALL IRRIGATION PIPES IN PVC SLEEVES BELOW ALL PAVED SURFACES AND COORDINATE PLACEMENT OF SLEEVES WITH APPLICABLE TRADES.
14. GRADE MAIN AND LATERAL LINES TO DRAIN. PLACE MANUAL DRAINS AT LOW POINT IN MAINLINES. MINIMUM ONE PER VALVE.
15. REFER TO THE SPECIFICATIONS FOR ADDITIONAL INFORMATION.

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BEFORE YOU DIG!**

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Also, verify all underground utilities not located by the 811 service by using a commercial location service and call SPR Inspection Request Line (206) 684-7034.

LEGEND:

- PROPERTY LINE
- - - PROJECT LIMITS
- - - GRADING LIMITS
- (E) MAIN LINE
- (E) LATERAL LINE
- (N) MAIN LINE
- (N) LATERAL LINE
- (N) IRRIGATION SLEEVING
- ⓐ (E) CONTROLLER
- ⊕ (E) POINT OF CONNECTION
- ⊕ (E) CONTROL VALVE
- ⊕ (N) CONTROL VALVE
- ⊕ (E) QUICK COUPLING VALVE
- ⊕ (N) TORO 640 SERIES ROTORS
- ⊕ (N) TORO 300 SERIES ROTORS
- ⊕ (N) RAINBIRD SPRINKLERS

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NO.	REVISION - AS BUILT	DATE

REVIEWED: _____ DATE _____
PARK ENGINEER

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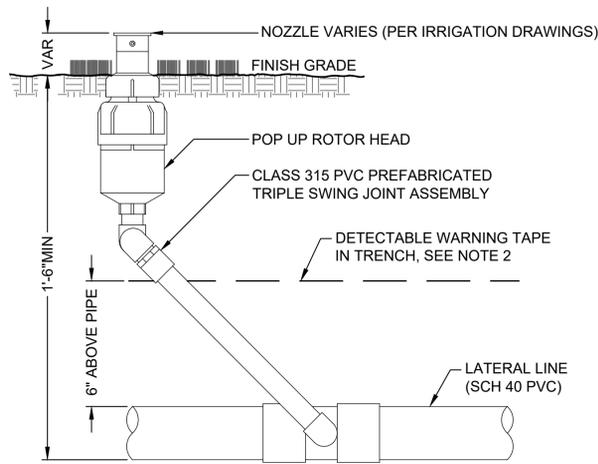
LOWMAN BEACH PARK

LOWMAN BEACH PARK SHORELINE RESTORATION

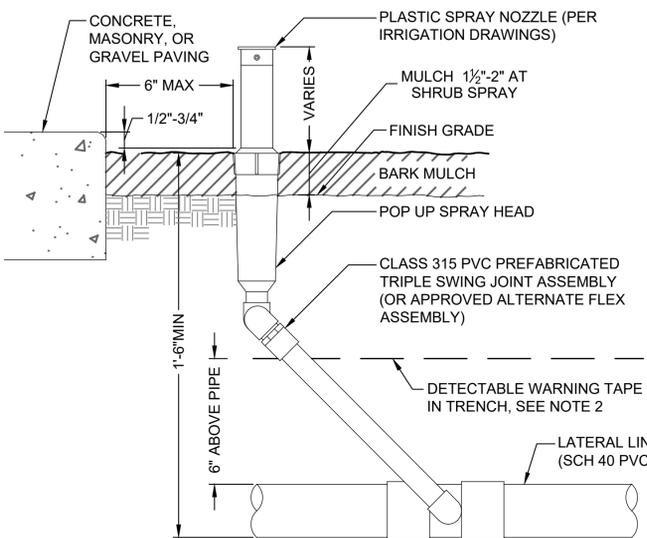
IRRIGATION PLAN

DESIGNED	ABG	DATE	01/24/2020
DRAWN	ABG	SHEET	33 OF 36
CHECKED	TLJ		
ORDINANCE NO.	X		L1
SPECIFICATION NO.	X		
SCALE	AS NOTED		

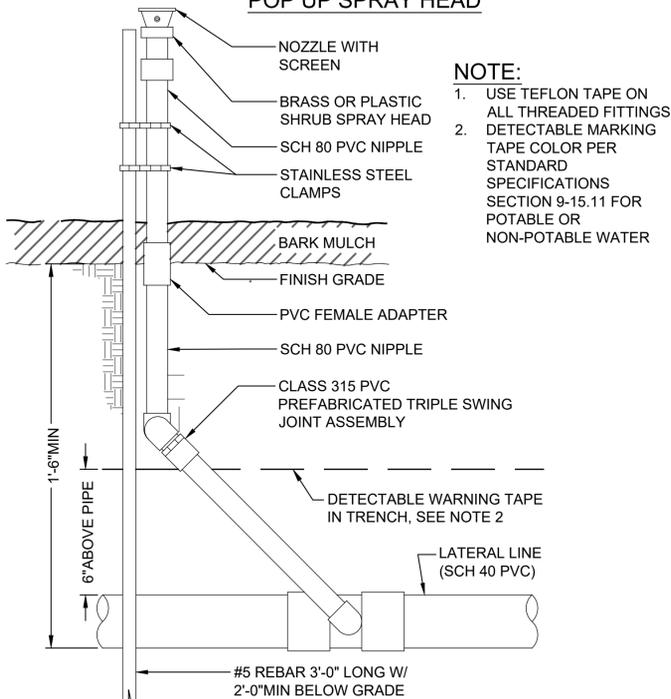
PLOT DATE: 1/30/2020 7:28:50 PM PLOTTED BY: PABLO QUIROGA FILE NAME: \\sfb-fie01\projects\SEA\160292\00 Lowman Beach Park\08_CADD\dwg\L1_IRRIGATION PLAN.dwg



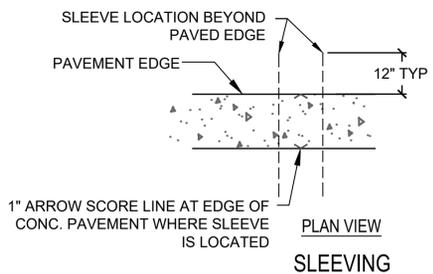
POP UP ROTOR HEAD
TURF AREAS



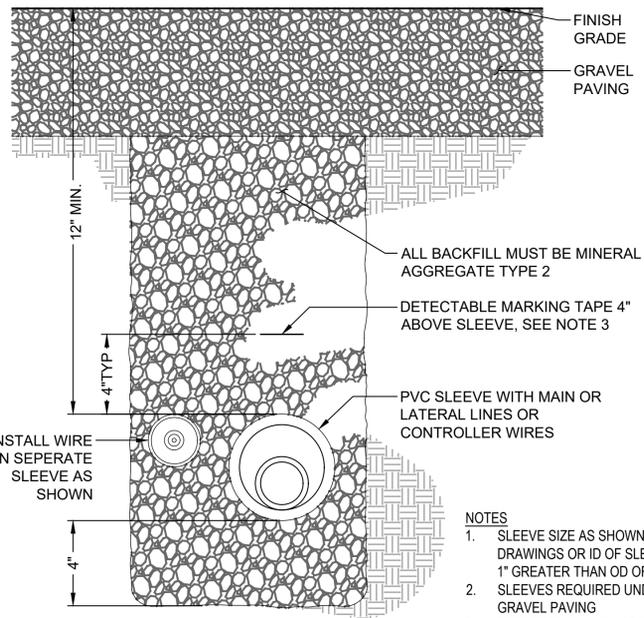
POP UP SPRAY HEAD



FIXED SHRUB RISER

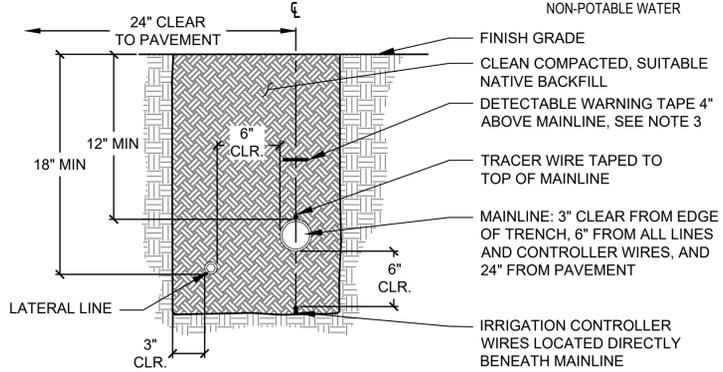


NOTES:
1) CONTRACTOR WILL REPAIR ALL TRENCH SETTLEMENT AND RESTORE FINISH GRADES PRIOR TO SEEDING OR PLANTING AREAS.
2) INSTALL ALL WIRES IN SLEEVE(S) WHERE PIPE PASSES UNDER PAVING

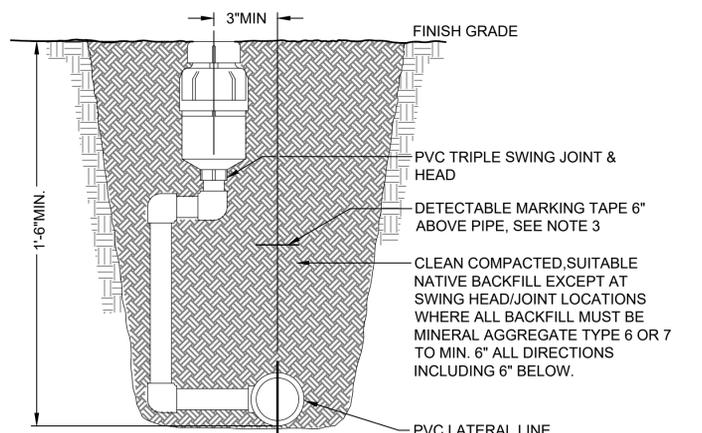


SLEEVE TRENCHING

NOTES:
1. SLEEVE SIZE AS SHOWN ON DRAWINGS OR ID OF SLEEVE TO BE 1" GREATER THAN OD OF PIPE
2. SLEEVES REQUIRED UNDER ALL GRAVEL PAVING
3. DETECTABLE MARKING TAPE COLOR PER STANDARD SPECIFICATIONS SECTION 9-15.11 FOR POTABLE OR NON-POTABLE WATER



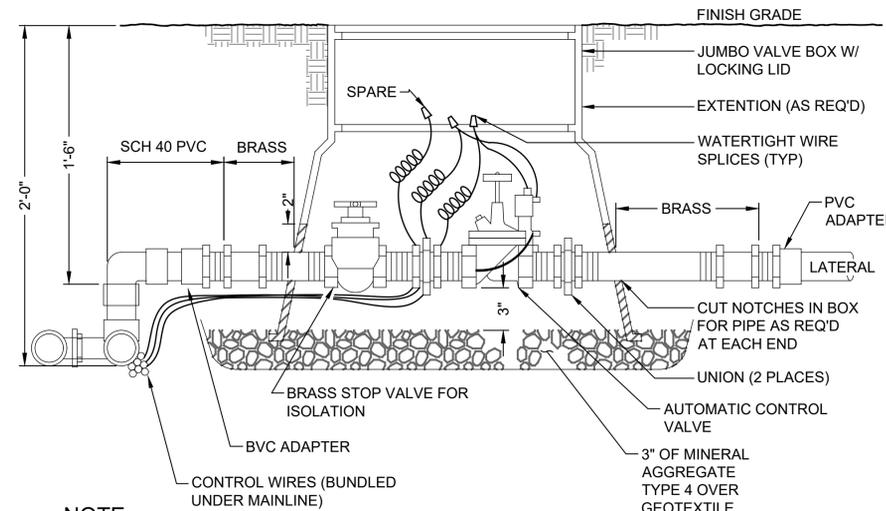
TRENCHING IN PLANTING AREAS



LATERAL ONLY

IRRIGATION SCHEDULE

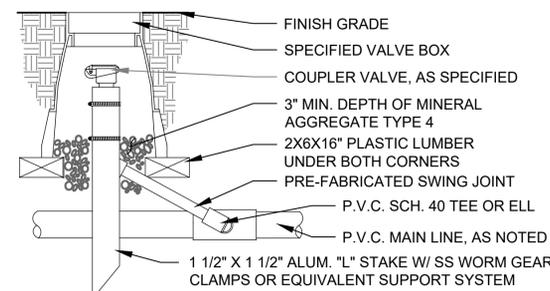
SYMBOL	CATALOG	DESCRIPTION	PSI	NOZZLE	ARC	RADIUS	GPM
1812-SAM-PRS-MPR	RAINBIRD 1800 SERIES SPRINKER		30	15F	90°, 120°, 180°	15'	0.9-1.85
304-00-15	TORO 300 SERIES FOR SMALL LAWN		35	15	90°	20'	1.15
306-00-15	TORO 300 SERIES FOR SMALL LAWN		35	15	135°	20'	1.72
308-00-15	TORO 300 SERIES FOR SMALL LAWN		35	15	180°	20'	2.29
641-02-41	TORO 640 SERIES, CHECK-O-MATIC		70	41	90°	55'	11.9
642-02-41	TORO 640 SERIES, CHECK-O-MATIC		70	41	120°, 180°	55'	11.9
644-02-41	TORO 640 SERIES, CHECK-O-MATIC		70	41	360°	55'	11.9
VB/HD	BUCKNER/SUPERIOR VB/HD SERIES CONTROL VALVE IN VALVE BOX						
QB44LRC-10	BUCKNER QUICK COUPLING VALVE, LOCATE AS DIRECTED IN SPECIFICATIONS						
-	SCHEDULE 40 PVC MAINLINE 2" PIPING						
-	SCHEDULE 40 PVC LATERAL LINE PIPING, SIZE AS NOTED						
-	SCHEDULE 40 PVC SLEEVING FOR IRRIGATION LINES AND CONTROL WIRES						



NOTE:
"U" SHAPED CUT-OUT IN VALVE BOX THAT ALLOWS 2" CLEARANCE FROM TOP OF PIPE TO TOP OF "U"

3
AUTOMATIC CONTROL VALVE
DETAIL

NOT TO SCALE



4
QUICK COUPLING VALVE
DETAIL

NOT TO SCALE

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NO.	REVISION - AS BUILT	DATE

REVIEWED: _____ DATE _____
PARK ENGINEER

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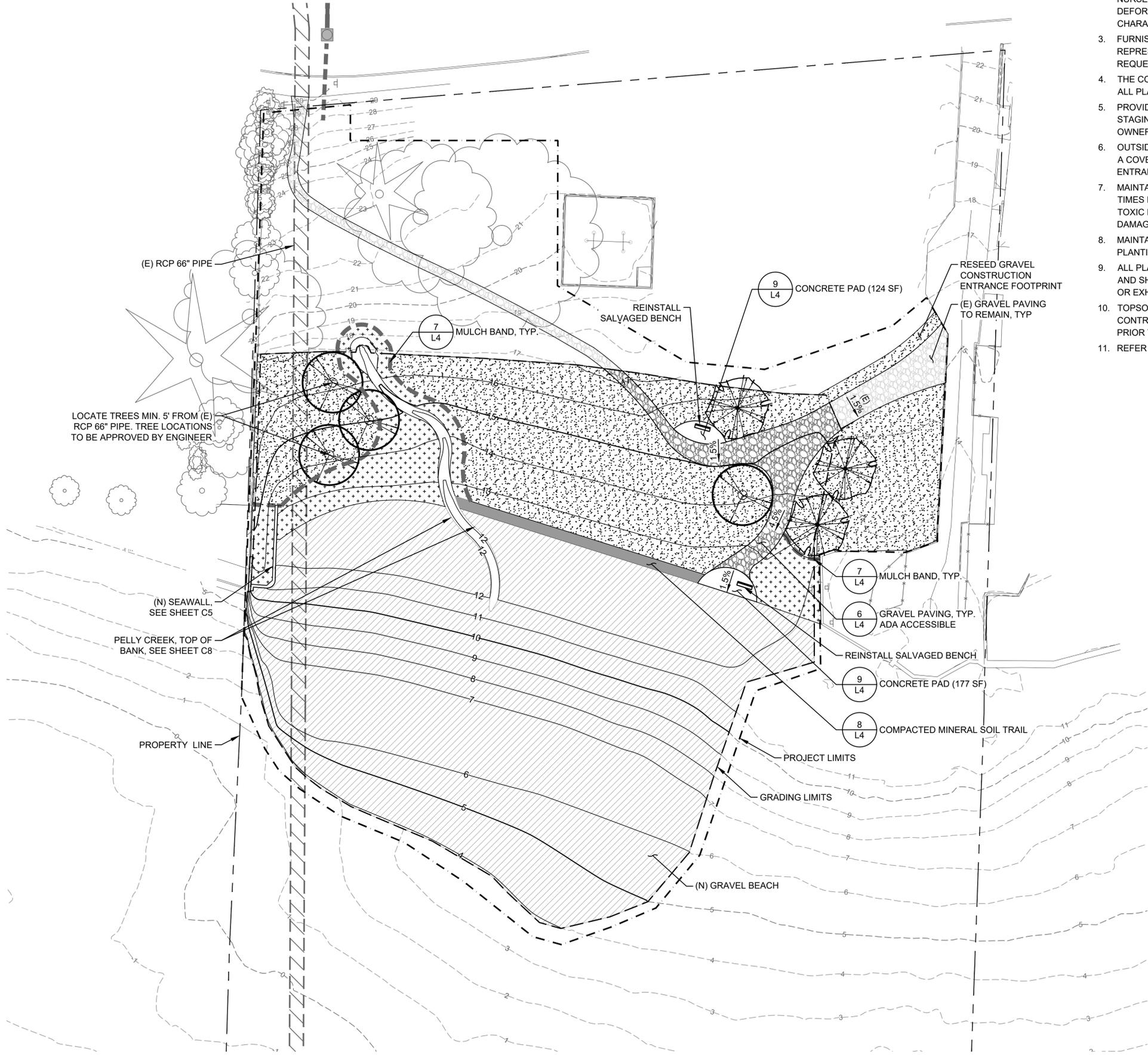
LOWMAN BEACH PARK

LOWMAN BEACH PARK SHORELINE RESTORATION

IRRIGATION SCHEDULE & DETAILS

DESIGNED	ABG	DATE	01/24/2020
DRAWN	RDG		
CHECKED	TLJ	SHEET	34 OF 36
ORDINANCE NO.	X		
SPECIFICATION NO.	X		
SCALE	AS NOTED		

L2



PLANTING NOTES:

1. SEE SHEET L4 FOR PLANTING SCHEDULE AND DETAILS.
2. ALL PLANTS SELECTED SHALL BE CONSISTENT WITH CURRENT AMERICAN NURSERYMEN'S STANDARDS. ANY PLANTS THAT ARE DISEASED, DEFORMED, ROOT BOUND, POORLY SHAPED OR DEFICIENT OF HEALTHY CHARACTERISTICS SHALL NOT BE ACCEPTED.
3. FURNISH ALL PLANTING MATERIALS. PROVIDE THE OWNER'S REPRESENTATIVE A MINIMUM OF 15 DAYS ADVANCE NOTICE WHEN REQUESTING PLANT MATERIAL DELIVERY TO THE PROJECT SITE.
4. THE CONTRACTOR IS RESPONSIBLE FOR HANDLING AND STORAGE OF ALL PLANT MATERIALS THROUGHOUT THE CONTRACT PERIOD.
5. PROVIDE AN ONSITE STORAGE SITE FOR THE PLANT MATERIALS AT THE STAGING AREAS SHOWN ON SHEET G4, OR AS DIRECTED BY THE OWNER'S REPRESENTATIVE.
6. OUTSIDE STORAGE SHALL BE SHADED AND PROTECTED FROM WIND WITH A COVERING THAT ALLOWS AIR CIRCULATION AND MINIMIZES HEAT ENTRAPMENT.
7. MAINTAIN PLANT MATERIALS IN OPTIMAL HEALTH AND PROTECT AT ALL TIMES FROM ANIMALS, VANDALISM, SUNBURN, DROUGHT, WIND, FROST, TOXIC IRRIGATION WATER, OR ANY OTHER CONDITIONS THAT WOULD DAMAGE OR REDUCE THE VIABILITY OF THE PLANT MATERIALS.
8. MAINTAIN MOISTURE OF PLANT MATERIALS AT ALL TIMES BEFORE PLANTING.
9. ALL PLANT MATERIAL SHALL BE WARRANTED FOR A PERIOD OF ONE YEAR AND SHALL BE IN A HEALTHY CONDITION AT THAT TIME. ALL PLANTS DEAD OR EXHIBITING UNHEALTHY CHARACTERISTICS SHALL NOT BE ACCEPTED.
10. TOPSOIL SHALL BE FREE OF NOXIOUS WEEDS AND WEED SEEDS. CONTRACTOR SHALL GUARANTEE THAT WEEDS HAVE BEEN REMOVED PRIOR TO INSTALLATION.
11. REFER TO THE SPECIFICATIONS FOR ADDITIONAL INFORMATION.

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LEGEND:

- PROPERTY LINE
- - - PROJECT LIMITS
- - - (E) CONTOUR, MAJOR
- - - (E) CONTOUR, MINOR
- - - (N) CONTOUR, MAJOR
- - - (N) CONTOUR, MINOR
- GRADING LIMITS
- (E) GRAVEL TRAIL
- (N) GRAVEL TRAIL
- (N) GRAVEL BEACH
- COMPACTED MINERAL SOIL TRAIL
- BEACH REVEGETATION
- LAWN
- MULCH BAND
- PACIFIC MADRONE
ARBUTUS MENZIESII
- SHORE PINE
PINUS CONTORTA V. CONTORTA

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NO.	REVISION	DATE
	AS BUILT	

REVIEWED: _____ DATE _____
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90% NOT FOR CONSTRUCTION
ALLISON B. GREENER
LANDSCAPE ARCHITECT
NO. 1047 EXP. 2/28/2021

Seattle Parks & Recreation

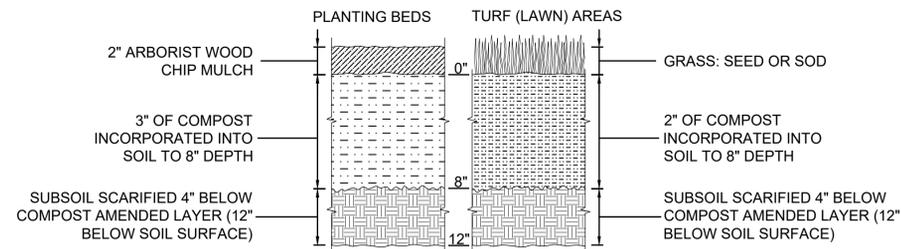
LOWMAN BEACH PARK

LOWMAN BEACH PARK SHORELINE RESTORATION

LANDSCAPE PLAN

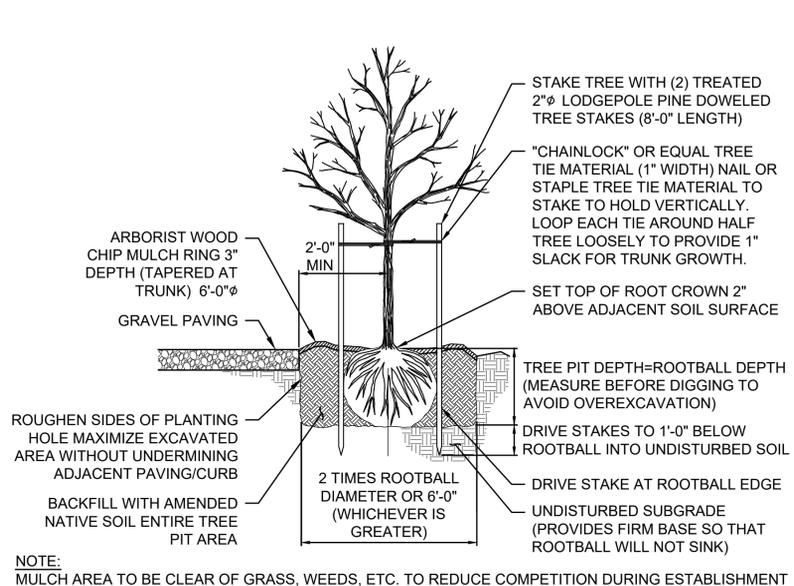
DESIGNED ABG	DATE 01/24/2020
DRAWN RDG	
CHECKED TLJ	SHEET 35 OF 36
ORDINANCE NO. X	L3
SPECIFICATION NO. X	
SCALE AS NOTED	

PLOT DATE: 1/30/2020 7:28:18 PM PLOTTED BY: PABLO QUIROGA FILE NAME: \\sfb-fie01\PROJECTS\SEA\16xxxx\160292.dwg Lowman Beach Park\08_CADD\dwg\L3 LANDSCAPE PLAN.dwg

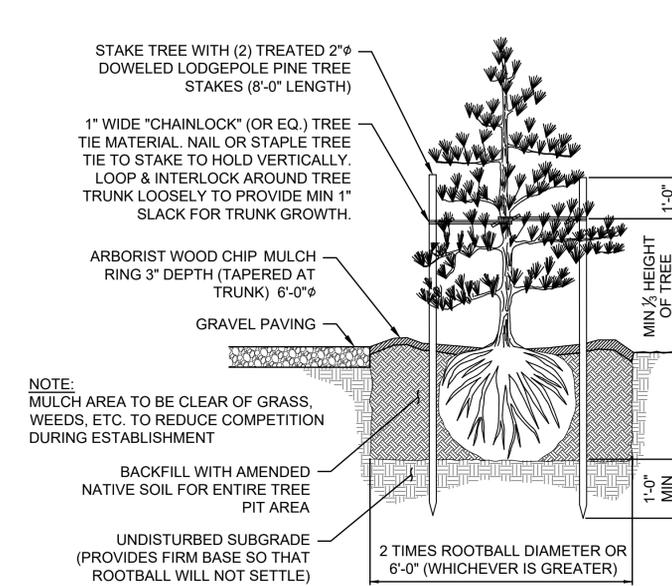


- NOTES:**
- ALL SOIL AREAS DISTURBED OR COMPACTED DURING CONSTRUCTION, AND NOT COVERED BY BUILDINGS OR PAVEMENT, MUST BE AMENDED WITH COMPOST AS DESCRIBED BELOW.
 - SUBSOIL SHOULD BE SCARIFIED (LOOSENE) 4 INCHES BELOW AMENDED LAYER, TO PRODUCE 12-INCH DEPTH OF UN-COMPACTED SOIL, EXCEPT WHERE SCARIFICATION WOULD DAMAGE TREE ROOTS OR AS DETERMINED BY THE ENGINEER.
 - COMPOST MUST BE FILLED IN TO 8 INCH DEPTH INTO EXISTING SOIL, OR PLACE 8 INCHES OF COMPOST-AMENDED SOIL, PER SOIL SPECIFICATION.
 - TURF AREAS MUST RECEIVE 2 INCHES OF COMPOST TILLED IN TO 8-INCH DEPTH, OR MAY SUBSTITUTE 8" OF IMPORTED SOIL CONTAINING 20-25% COMPOST BY VOLUME. THEN PLANT GRASS SEED OR SOD PER SPECIFICATION.
 - PLANTING BEDS MUST RECEIVE 2 INCHES OF COMPOST TILLED IN TO 8-INCH DEPTH, OR MAY SUBSTITUTE 8" OF IMPORTED SOIL CONTAINING 35-40% COMPOST BY VOLUME. MULCH AFTER PLANTING, WITH 2-3 INCHES OF ARBORIST WOOD CHIP MULCH.
 - SETBACKS: TO PREVENT UNEVEN SETTLING, DO NOT COMPOST-AMEND SOILS WITHIN 3 FEET OF UTILITY INFRASTRUCTURES (POLES, VAULTS, METERS ETC.) WITHIN ONE FOOT OF PAVEMENT EDGE, CURBS AND SIDEWALKS SOIL SHOULD BE COMPACTED TO APPROXIMATELY 90% PROCTOR TO ENSURE A FIRM SURFACE.

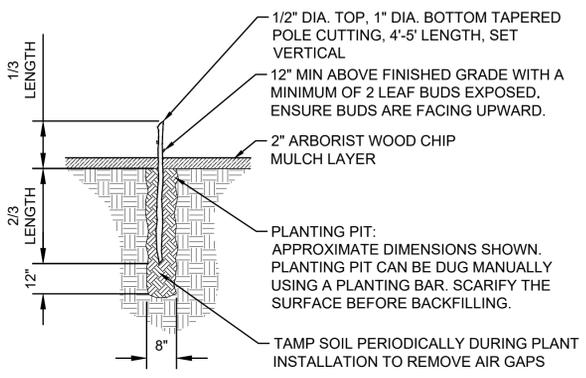
1 SOIL PREPARATION SECTION
DETAIL NOT TO SCALE



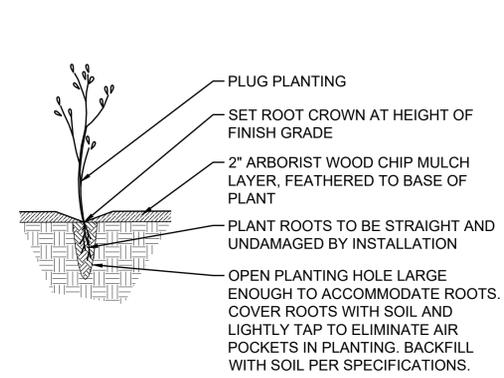
2 DECIDUOUS TREE PLANTING
DETAIL NOT TO SCALE



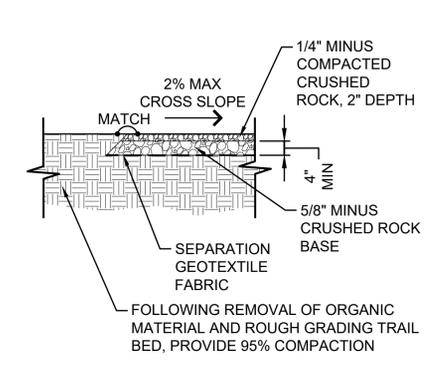
3 CONIFEROUS TREE PLANTING
DETAIL NOT TO SCALE



4 LIVE STAKE PLANTING
DETAIL NOT TO SCALE

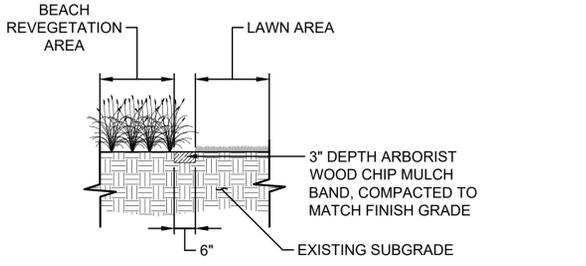


5 PLUG PLANTING
DETAIL NOT TO SCALE

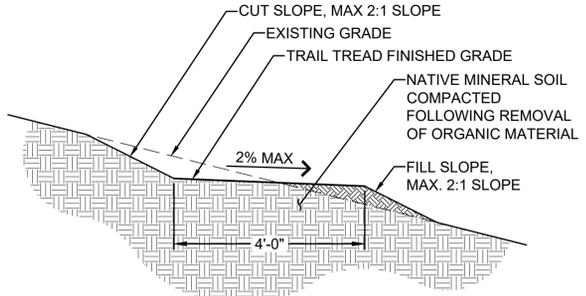


6 GRAVEL PAVING
DETAIL NOT TO SCALE

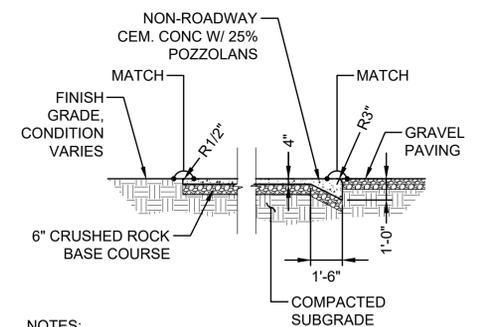
- NOTES:**
- WHEN REGRADING EXISTING GRAVEL SURFACES, CONTRACTOR SHALL TOP DRESS WITH 1/4" MINUS CRUSHED ROCK AND COMPACT TO DESIRED GRADE. MATCH DETAIL PROFILE TO THE GREATEST EXTENT PRACTICABLE.
 - REMOVE ALL ROOTS AND ORGANIC DEBRIS TO A DEPTH OF 6" WITHIN THE DESIGNED TRAIL CORRIDOR PRIOR TO IMPORTING CRUSHED ROCK. ESTABLISH DESIGN CROSS-SLOPE IN SUBGRADE MATERIALS. SLOPE OR CROWN AS DIRECTED.
 - ROLL/COMPACT EDGES OF FINISH PATH TO BLEND BACK TO ADJACENT GRADE. FINISHING GRADE OF PATH WILL BE FLUSH OR SLIGHTLY ELEVATED/CROWNED ABOVE ADJACENT SURFACES.
 - IMPORT CRUSHED ROCK FOLLOWING DEPARTMENTAL APPROVAL OF PREPARED TRAIL BED. TAPER EDGES AT A 45° ANGLE INTO THE SUBGRADE. TOP COURSE FLUSH WITH FINISH GRADE. WHERE DESIRED, PROVIDE COMPLETE MECHANICAL COMPACTION. WHERE THIS IS IMPRACTICAL OR IMPOSSIBLE, COMPACT BY HAND WITH AN APPROPRIATELY WEIGHTED IMPLEMENT.
 - PERFORM SITE RESTORATION AND REVEGETATION IMMEDIATELY UPON COMPLETION OF TRAIL WORK AND/OR RELATED DRAINAGE WORK OR AS DIRECTED BY THE ENGINEER.



7 MULCH BAND
DETAIL NOT TO SCALE



8 COMPACTED MINERAL SOIL TRAIL
DETAIL NOT TO SCALE



9 CONCRETE PAD
DETAIL NOT TO SCALE

PLANTING MIX A - BEACH REVEGETATION (3,002 SF)						
SYMBOL	TYPE	SCIENTIFIC NAME	COMMON NAME	INSTALL SIZE	SPACING OC	QUANTITY
	TREE - DECIDUOUS	ARBUTUS MENZIESII	PACIFIC MADRONE	6' - 8' HT., 1" CAL.	AS SHOWN	4
	TREE - CONIFEROUS	PINUS CONTORTA V. CONTORTA	SHORE PINE	6' - 8' HT.	AS SHOWN	3
	SHRUB*	SALIX HOOKERIANA	COASTAL WILLOW	LIVE STAKE	5' OC	40
	GROUNDCOVER	DESCHAMPSIA CAESPITOSA	TUFTED HAIRGRASS	10" PLUG	30" OC	111
		DISTICHLIS SPICATA	SALTGRASS	10" PLUG	30" OC	166
		FRAGARIA CHILOENSIS	BEACH STRAWBERRY	10" PLUG	30" OC	56
		LEYMUS MOLLIS	AMERICAN DUNEGRASS	10" PLUG	30" OC	167
	GROUNDCOVER	PLANTAGO MARITIMA	SEA PLANTAIN	10" PLUG	30" OC	55
	SOIL AMENDMENTS	INSTALL BACKFILL WITH AMENDED NATIVE SOIL. INSTALL COMPOST AS INDICATED IN SOIL PREPARATION SECTION DETAIL ABOVE.				
	MULCH	INSTALL ARBORIST WOOD CHIP MULCH AS INDICATED IN DETAILS ABOVE.				

* PLANT WILLOW LIVE STAKES IN 5' BAND FROM TOP OF BANK OF PELLY CREEK, OVER GROUNDCOVER PLANTINGS (APPROXIMATE AREA: 875 SF)

>>>>CAUTION - CALL 811<<<<
UTILITY NOTIFICATION CENTER
BEFORE YOU DIG!
WWW.CALL811.COM
Also, verify all underground utilities not located by the 811 service by using a commercial location service and call SPR Inspection Request Line (206) 684-7034.

NO.	REVISION	AS BUILT	DATE
3			
2			
1			

REVIEWED: _____ DATE _____
PARK ENGINEER

ESA 5309 SHILSHOLE AVE. NW, STE. 200 SEATTLE, WA 98107 OFFICE - 206.789.9658 WWW.ESASSOC.COM

90% PROPOSED
NOT A LANDSCAPE ARCHITECT
STATE OF WASHINGTON
ALLISON B. GREENER
LANDSCAPE ARCHITECT
NO. 1047 EXP. 2/28/2021

Seattle Parks & Recreation

LOWMAN BEACH PARK SHORELINE RESTORATION

LANDSCAPE SCHEDULE & DETAILS

DESIGNED: ABG	DATE: 01/24/2020
DRAWN: RDG	SHEET: 36 OF 36
CHECKED: TLJ	
ORDINANCE NO. X	L4
SPECIFICATION NO. X	
SCALE: AS NOTED	

PLOT DATE: 1/30/2020 7:29:28 PM PLOTTED BY: PABLO QUIROGA FILE NAME: \\sfc-fie01\PROJECTS\SEA1\60000\160292\00 Lowman Beach Park\08_CADD\wgsl\LANDSCAPE SCHEDULE & DETAIL 5.dwg