

# 100% CONSTRUCTION DRAWINGS/BID SET

# MEADOWDALE BEACH PARK AND ESTUARY DESIGN

SNOHOMISH COUNTY PARKS AND RECREATION



SOURCE: ESRI

VICINITY MAP

- NOTES:**
- THIS PROJECT INCLUDES WORK WITHIN BNSF RIGHT-OF-WAY AND ON PARK PROPERTY TO CONSTRUCT A RAILROAD BRIDGE OVER LUNDS GULCH CREEK. WORK TO BE PERFORMED IS SHOWN ON THE "MEADOWDALE BEACH PARK AND ESTUARY DESIGN PLANS" BY ANCHOR QEA AND ON THE "MEADOWDALE BEACH RAILROAD BRIDGE - CIVIL PLANS" AND THE "MEADOWDALE BEACH RAILROAD BRIDGE - STRUCTURAL PLANS" PREPARED BY HANSON PROFESSIONAL SERVICES.
  - ALL WORK SHOWN WITHIN THIS SET OF PLANS BY ANCHOR QEA AND THE RAILROAD BRIDGE CIVIL PLANS SHALL BE ACCOMPLISHED BY THE CONTRACTOR UNDER CONTRACT WITH SNOHOMISH COUNTY UNLESS OTHERWISE SPECIFIED. WORK PROPOSED ON THE RAILROAD BRIDGE STRUCTURAL PLANS SHALL BE RESPONSIBILITY OF BNSF OR THEIR DESIGNATED CONTRACTOR UNLESS OTHERWISE SPECIFIED.
  - THE CONTRACTOR SHALL COORDINATE ALL WORK SHOWN ON THESE PLANS WITH RAILROAD BRIDGE WORK SHOWN ON THE RAILROAD BRIDGE STRUCTURAL AND CIVIL PLANS. SEE PROJECT SPECIFICATIONS FOR ADDITIONAL DETAIL ON COORDINATION OF WORK.

Prime Consultant



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Civil Engineer: David Rice, PE

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(206) 287-9130

Owner  
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logan.daniels@snoco.org

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Surveyor  
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(425) 483-5355

Structural Engineering Consultant  
Swenson Say Faget  
(206) 443-6212

Irrigation Consultant  
William Stewart Design  
(206) 605-9863

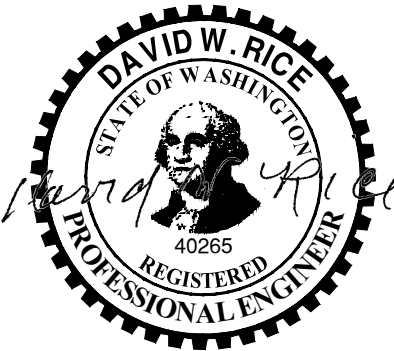
Electrical Engineering Consultant  
Cross Engineers  
(253) 759-0118

COUNTY EXECUTIVE: DAVE SOMERS  
DIRECTOR OF PARKS AND RECREATION: TOM TEIGEN  
COUNCIL DISTRICT 1/COUNCIL CHAIR: NATE NEHRING  
COUNCIL DISTRICT 2: MEGHAN DUNN  
COUNCIL DISTRICT 3/COUNCIL VICE-CHAIR: STEPHANIE WRIGHT  
COUNCIL DISTRICT 4: JARED MEAD  
COUNCIL DISTRICT 5: SAM LOW

SITE ADDRESS:  
15433 75TH PLACE WEST EDMONDS, WA 98026

TAX PARCEL NUMBERS: 00500900000500, 27040500200100,  
27040500200200  
LEGAL DESCRIPTIONS: SEE SHEET G-4

PROJECT CESCL: LOGAN DANIELS, #81260 (UNTIL TRANSFER OF  
COVERAGE FROM COUNTY TO CONTRACTOR IS APPROVED BY  
DEPT. OF ECOLOGY)



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EARTHWORK – APROXIMATE GRADING QUANTITIES:		
	EXCAVATION	FILL
<b>RAILROAD BRIDGE CONSTRUCTION:</b>		
TEMPORARY EMBANKMENT (IMPORTED MATERIAL)	2,800 CY	2,800 CY
STRUCTURAL EXCAVATION/FILL	3,000 CY	500 CY
<b>SUBTOTAL – RAILROAD BRIDGE CONSTRUCTION</b>	<b>5,800 CY</b>	<b>3,300 CY</b>
<b>PARK AND ESTUARY CONSTRUCTION:</b>		
TOTAL EXCAVATION (NATIVE MATERIAL)	15,400 CY	
TOTAL PLACEMENT (NATIVE MATERIAL)		2,600 CY
TOTAL PLACEMENT (IMPORTED MATERIAL)		4,400 CY
<b>SUBTOTAL – PARK AND ESTUARY CONSTRUCTION</b>	<b>15,400 CY</b>	<b>7,000 CY</b>
<b>TOTAL EXCAVATION (NATIVE MATERIAL)</b>	<b>21,200 CY</b>	
<b>TOTAL PLACEMENT (NATIVE MATERIAL)</b>		<b>2,600 CY</b>
<b>TOTAL PLACEMENT (IMPORTED MATERIAL)</b>		<b>7,700 CY</b>

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HARD SURFACE CALCUATIONS:	
REPLACED HARD SURFACE	6,733 SF (0.15 AC)
NEW HARD SURFACE	23,235 SF (0.53 AC)
NEW + REPLACED HARD SURFACE	29,968 SF (0.69 AC)
EXISTING HARD SURFACE TO REMAIN	28,466 SF (0.65 AC)
TOTAL POST-PROJECT HARD SURFACE	58,434 AF (1.34 AC)

APPROVED FOR CONSTRUCTION  
BY: *[Signature]*  
PW PERMIT NO. NA  
DATE 10/29/2020  
PFN: 19-103913LDA

100% CONSTRUCTION DRAWINGS/BID SET

ONE INCH = 100 FEET  
AT FULL SIZE, IF NOT ONE INCH SCALE ACCORDINGLY

K:\Projects\0723-snohomish-county\meadowdale-park\construction-plans\0723-PL-Cover-Sheet.dwg G-1  
Sep 22, 2020 2:20pm chevet

720 Olive Way | Suite 1900 | Seattle, WA 98101

REVISIONS				
REV	DATE	BY	APP'D	DESCRIPTION
1	9/22/20	CH	PH	REVISE EARTHWORK VOLUME TABLE

DESIGNED BY: PH  
DRAWN BY: CH/TG  
CHECKED BY: DR  
APPROVED BY: PH  
SCALE: AS NOTED  
DATE: SEPTEMBER 2020

MEADOWDALE BEACH PARK  
AND ESTUARY DESIGN  
PFN 19-103913LDA

PLAN COVER SHEET

G-1

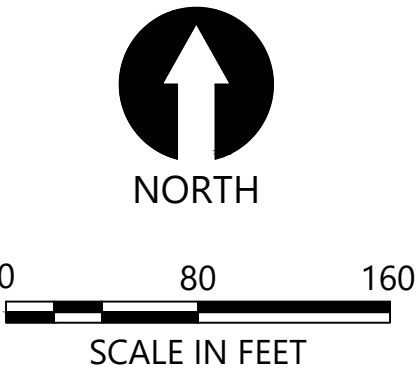
SHEET # 1 OF 81



k:\Projects\0723-snohomish county\meadowdale park\construction plans\0723-PL Site Context and Layout Plan.dwg 2 G-2  
Sep 15, 2020 8:53am chiewett

SECTION 5, TOWNSHIP 27 N., RANGE 4 E

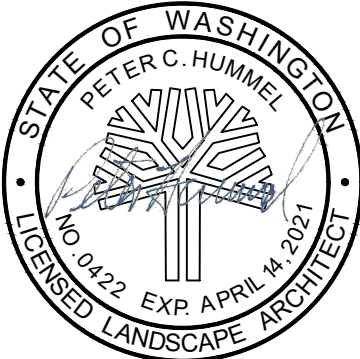
- LEGEND:
- PROJECT BOUNDARY
  - CITY OF EDMONDS/SNOHOMISH COUNTY BOUNDARY
  - PARK BOUNDARY
  - PARCEL BOUNDARY
  - BNSF RIGHT-OF-WAY
  - BNSF CENTERLINE
  - EXISTING OHWM
  - EXISTING MHHW (EL. +9.0' MLLW)
  - EXISTING LUND GULCH CREEK THALWEG
  - EXISTING WETLAND TO BE PROTECTED



- NOTES:
- HORIZONTAL DATUM: WASHINGTON STATE PLANE NORTH ZONE, NAD 83, U.S. FEET.
  - VERTICAL DATUM: NAVD 88
  - DRAWINGS ARE INTENDED TO BE VIEWED IN COLOR. SOME INFORMATION WILL BE LOST WITH BLACK AND WHITE VIEWING.

APPROVED FOR CONSTRUCTION  
BY: *R. W. P.*  
R/W PERMIT NO. NA  
DATE 10/29/2020  
PFN: 19-103913LDA

100% CONSTRUCTION DRAWINGS/BID SET



REVISIONS					DESCRIPTION
REV	DATE	BY	APP'D		

DESIGNED BY: PH  
DRAWN BY: CH/TG  
CHECKED BY: DR  
APPROVED BY: PH  
SCALE: 1" = 80'  
DATE: SEPTEMBER 2020

MEADOWDALE BEACH PARK  
AND ESTUARY DESIGN  
PFN 19-103913LDA

SHEET LAYOUT

G-2

SHEET # 2 OF 81

ONE INCH  
AT FULL SIZE, IF NOT ONE  
INCH SCALE ACCORDINGLY



SECTION 5, TOWNSHIP 27 N., RANGE 4 E

GENERAL NOTES:

- ALL EMPLOYEES MUST COMPLY WITH BNSF SAFETY REQUIREMENTS. THIS INCLUDES, BUT IS NOT LIMITED TO, PASSING A SAFETY COURSE, OBTAINING DOCUMENTATION OF SUCCESSFULLY PASSING THE COURSE, AND ADHERING TO REQUIREMENTS IDENTIFIED IN THE COURSE. THE REQUIRED BNSF SAFETY COURSE MAY BE ACCESSED AT THE FOLLOWING WEBSITE: WWW.RAILROADCOURSES.COM.
- A BNSF FLAGGER SHALL BE PRESENT ANY TIME THE CONTRACTOR IS WORKING WITHIN 25 FEET OF THE TRACKS. THE CONTRACTOR SHALL COMMUNICATE WITH THE OWNER TO ARRANGE FOR A FLAGGER TO BE PRESENT DURING THESE TIMES.
- DRAWINGS ARE INTENDED TO BE VIEWED IN COLOR. SOME INFORMATION WILL BE LOST WITH BLACK AND WHITE VIEWING.
- THE ENTIRE PROJECT SITE LIES WITHIN A CRITICAL AQUIFER RECHARGE AREA WITH LOW SENSITIVITY, WITH DEPTH TO AQUIFER OVER 100 FEET.

SURVEY NOTES:

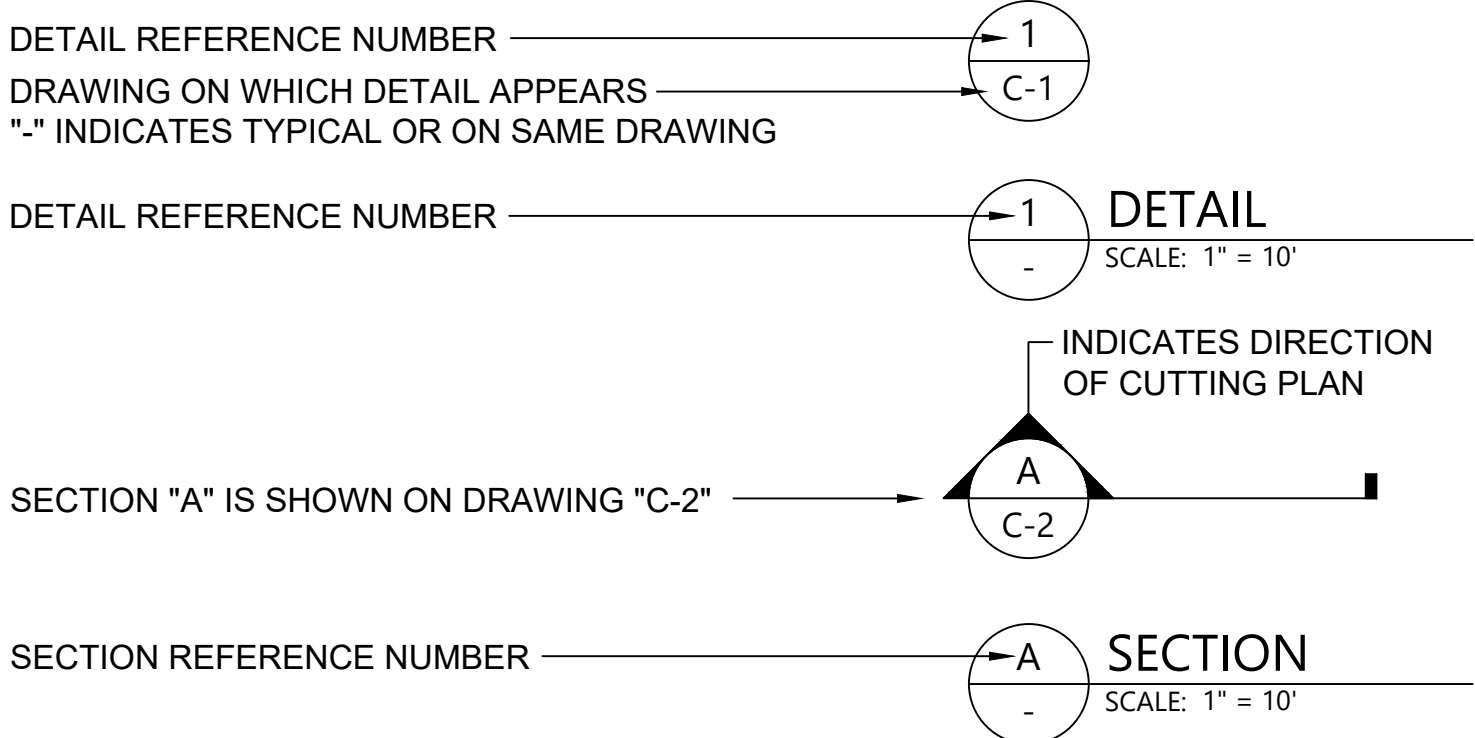
- SURVEY BY DUANE HARTMAN & ASSOCIATES, INC IN 2017.
- HORIZONTAL DATUM: WASHINGTON STATE COORDINATE SYSTEM, NORTH ZONE NAD83(91), U.S. FEET UTILIZING RTK GPS FIELD PROCEDURES
- VERTICAL DATUM: TO CONVERT ELEVATIONS SHOWN HEREON TO MEAN LOWER LOW WATER DATUM PLEASE ADD 2.05 FEET.
- UTILITIES MAPPING: ALL EXISTING UTILITIES SHOWN HEREIN ARE TO BE VERIFIED HORIZONTALLY AND VERTICALLY PRIOR TO ANY CONSTRUCTION. ALL EXISTING FEATURES INCLUDING BURIED UTILITIES ARE SHOWN AS INDICATED BY RECORD LOCATION OR FIELD TIED AS A RESULT OF A UTILITY PAINT-OUT DURING THE COURSE OF THE FIELD SURVEY. DUANE HARTMAN & ASSOCIATES, INC. (DHA) ASSUMES NO LIABILITY FOR THE ACCURACY OF THE RECORD INFORMATION. FOR THE FINAL LOCATION OF THE EXISTING UTILITIES IN AREAS CRITICAL TO CONSTRUCTION, CONTACT THE UTILITY OWNER/AGENCY AND UTILITIES UNDERGROUND CENTER (800/424-5555).
- TOPOGRAPHIC MAPPING: THE MAP SHOWN HEREON IS THE RESULT OF A TOPOGRAPHIC SURVEY BY DUANE HARTMAN & ASSOCIATES, INC. (DHA) COMPLETED ON OCTOBER 2016. DHA ASSUMES NO LIABILITY, BEYOND SAID DATE, FOR ANY FUTURE SURFACE FEATURE MODIFICATIONS OR CONSTRUCTION ACTIVITIES THAT MAY OCCUR WITHIN OR ADJOINING THE PERIMETER OF THIS SURVEY. CONTACT DHA (425) 483-5355 FOR SITE UPDATES AND VERIFICATIONS.
- RAILROAD RIGHT-OF-WAY LINES: THE BNSF RAILWAY RIGHT-OF-WAY LINES SHOWN HEREON HAVE BEEN CALCULATED USING TRACK STATIONING, RAILROAD GEOMETRY AND CADASTRAL CALL OUTS AS SHOWN ON "BNSF RAILWAY RIGHT-OF-WAY".

EXISTING TIDAL INFORMATION AT THE SITE	
DATUM	2015 (SEE NOTE A) ELEVATION (FEET, NAVD88/FEET MLLW 2015)
HIGHEST ASTRONOMICAL TIDE (SEE NOTE C)	10.5/12.5
MEAN HIGHER HIGH WATER (MHHW)	9.0/11.0
MEAN HIGH WATER (MHW)	8.1/10.1
MEAN SEA LEVEL (MSL)	4.4/6.4
MEAN LOW WATER (MLW)	0.7/2.7
NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88)	0/2.0
MEAN LOWER LOW WATER (MLLW)	-2.0/0

NOTES:

- TIDAL DATUMS AND CONVERSIONS BETWEEN MLLW AND NAVD88 DATUM AT THE SITE TAKEN FROM THE NATION OCEANIC AND ATMOSPHERIC ADMINISTRATION (NOAA) VDATUM (<http://vdatum.noaa.gov/>). THE PROJECT SITE IS LOCATED ABOUT HALFWAY BETWEEN TIDAL BENCHMARKS IN SEATTLE (NO. 9447130) AND EVERETT (NO. 9447659).
- TO CONVERT TO ELEVATIONS RELATIVE TO MLLW (2015), ADD 2.0 FEET TO ELEVATIONS IN NAVD88 DATUM.
- SEA LEVEL RISE ESTIMATES ARE TAKEN FROM NRC (2012) AND ARE MID-RANGE ESTIMATES FOR EACH TARGET YEAR: 2030 (0.3 FOOT), 2050 (0.7 FOOT) AND 2100 (2.1 FEET).

DETAIL AND SECTION REFERENCING:



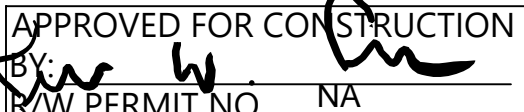
GENERAL CONSTRUCTION NOTES:

- THIS PROJECT INCLUDES WORK WITHIN BNSF RIGHT-OF-WAY AND ON PARK PROPERTY TO CONSTRUCT A RAILROAD BRIDGE OVER LUNDS GULCH CREEK. WORK TO BE PERFORMED IS SHOWN ON THE "MEADOWDALE BEACH PARK AND ESTUARY DESIGN PLANS" BY ANCHOR QEA AND ON THE "MEADOWDALE BEACH RAILROAD BRIDGE - CIVIL PLANS" AND THE "MEADOWDALE BEACH RAILROAD BRIDGE - STRUCTURAL PLANS" PREPARED BY HANSON PROFESSIONAL SERVICES.
- ALL WORK SHOWN WITHIN THIS SET OF PLANS BY ANCHOR QEA AND THE RAILROAD BRIDGE CIVIL PLANS SHALL BE ACCOMPLISHED BY THE CONTRACTOR UNDER CONTRACT WITH SNOHOMISH COUNTY UNLESS OTHERWISE SPECIFIED. WORK PROPOSED ON THE RAILROAD BRIDGE STRUCTURAL PLANS SHALL BE RESPONSIBILITY OF BNSF OR THEIR DESIGNATED CONTRACTOR UNLESS OTHERWISE SPECIFIED.
- THE CONTRACTOR SHALL COORDINATE ALL WORK SHOWN ON THESE PLANS WITH RAILROAD BRIDGE WORK SHOWN ON THE RAILROAD BRIDGE STRUCTURAL AND CIVIL PLANS. SEE PROJECT SPECIFICATIONS FOR ADDITIONAL DETAIL ON COORDINATION OF WORK.
- UNLESS OTHERWISE INDICATED ON THE DRAWINGS OR IN THE SPECIFICATIONS, ALL MATERIALS AND WORKMANSHIP SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THE CURRENT SNOHOMISH COUNTY ENGINEERING DESIGN AND DEVELOPMENT STANDARDS, THE CITY OF EDMONDS COMMUNITY DEVELOPMENT CODE, THE SNOHOMISH COUNTY DRAINAGE MANUAL, THE CITY OF EDMONDS STORMWATER MANAGEMENT CODE, THE WSDOT STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION (CURRENT EDITION), AND OTHER APPLICABLE CODES AND STANDARDS.
- THE CONTRACTOR SHALL HAVE COPIES OF THE APPROVED DRAWINGS, APPLICABLE SNOHOMISH COUNTY AND CITY OF EDMONDS STANDARDS, AND THE WSDOT STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION (CURRENT EDITION) ON THE JOB SITE WHENEVER CONSTRUCTION IS IN PROGRESS.
- THE CONTRACTOR SHALL VISIT THE JOB SITE PRIOR TO CONSTRUCTION AND SHALL BE RESPONSIBLE FOR VERIFYING FIELD CONDITIONS AND DIMENSIONS, AND CONFIRMING THAT THE WORK CAN BE ACCOMPLISHED AS SHOWN ON THESE DRAWINGS. ANY DISCREPANCIES BETWEEN THE EXISTING FIELD CONDITIONS AND THE DRAWINGS OR ANY INCONSISTENCIES OR AMBIGUITIES BETWEEN THE DRAWINGS AND OTHER CONTRACT DOCUMENTS SHALL BE REPORTED IN WRITING TO THE OWNER (SNOHOMISH COUNTY) PRIOR TO PROCEEDING WITH THE WORK. WORK DONE BY THE CONTRACTOR INVOLVING SUCH DISCREPANCIES WITHOUT A WRITTEN REPORT AND RESPONSE FROM THE OWNER SHALL BE DONE AT THE CONTRACTOR'S SOLE RISK AND EXPENSE.
- THE CONTRACTOR SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION, INCLUDING THE SAFETY OF ALL PERSONS AND PROPERTY. THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND IS NOT LIMITED TO NORMAL WORKING HOURS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ADEQUATE SAFEGUARDS, SAFETY DEVICES, PROTECTIVE EQUIPMENT, FLAGGERS, AND ANY OTHER NEEDED ACTIONS TO PROTECT THE LIFE, HEALTH, AND SAFETY OF THE PUBLIC, AND TO PROTECT PROPERTY IN CONNECTION WITH THE PERFORMANCE OF WORK COVERED BY THE CONTRACT.
- THE CONTRACTOR SHALL PROVIDE TEMPORARY CUT SLOPES AND SHORING IN AGREEMENT WITH THE GEOTECHNICAL REPORT AS NECESSARY FOR THE CONSTRUCTION AS SHOWN ON THESE DRAWINGS. THE STABILITY OF ALL TEMPORARY SLOPES AND SHORING IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
- THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES AND FOR COORDINATING ALL PORTIONS OF THE WORK UNDER THIS CONTRACT.
- THE CONTRACTOR SHALL MAKE ALL NECESSARY PROVISIONS TO PROTECT EXISTING STRUCTURES, SIGNS, FENCES, GATES, CURBS, ROADWAYS, DRAINAGE WAYS, CULVERTS, VEGETATION, AND OTHER IMPROVEMENTS UNLESS AND UNTIL SUCH ITEMS ARE TO BE DISTURBED OR REMOVED AS INDICATED ON THE DRAWINGS. IF SUCH ITEMS ARE DAMAGED OR NEED TO BE REMOVED OR MODIFIED TO FACILITATE CONSTRUCTION, THE CONTRACTOR SHALL FIRST NOTIFY SNOHOMISH COUNTY AND THEN REPLACE OR REPAIR THE ITEMS TO EQUAL OR BETTER CONDITION TO THE SATISFACTION OF SNOHOMISH COUNTY.
- THE CONTRACTOR SHALL NOT DISTURB OR DESTROY ANY EXISTING SURVEY MONUMENT OR BENCHMARK. ANY SURVEY MONUMENT OR BENCHMARK DISTURBED OR DESTROYED BY THE CONTRACTOR SHALL BE REPLACED AS DIRECTED BY SNOHOMISH COUNTY AT THE CONTRACTOR'S SOLE EXPENSE. ACCESS TO THE RANGER RESIDENCE SHALL REQUIRE 1 WEEK (MIN.) ADVANCE WRITTEN NOTICE AND WRITTEN APPROVAL BY SNOHOMISH COUNTY.
- THE CONTRACTOR SHALL MAINTAIN CONTINUOUS ACCESS TO THE RANGER RESIDENCE THROUGHOUT CONSTRUCTION OF THE PROJECT. ANY TEMPORARY DISRUPTION OF ACCESS TO THE RANGER RESIDENCE SHALL REQUIRE 1 WEEK (MIN.) ADVANCE WRITTEN NOTICE AND WRITTEN APPROVAL BY SNOHOMISH COUNTY.
- WHERE A CONSTRUCTION DETAIL IS NOT SHOWN OR NOTED, THE DETAIL SHALL BE THE SAME AS FOR OTHER SIMILAR WORK.
- THE DETAILS AND NOTES PROVIDED ON THE DRAWINGS AND IN THE SPECIFICATIONS SHALL TAKE PRECEDENCE OVER THESE GENERAL NOTES.
- DIMENSION CALL-OUTS SHALL TAKE PRECEDENCE OVER SCALES SHOWN ON THE CONTRACT DOCUMENTS.
- ALL MATERIALS SHALL BE NEW AND UNDAMAGED, UNLESS OTHERWISE APPROVED BY SNOHOMISH COUNTY AND THE ENGINEER. THE SAME MANUFACTURER OF EACH ITEM SHALL BE USED THROUGHOUT THE WORK UNLESS OTHERWISE APPROVED BY SNOHOMISH COUNTY AND THE ENGINEER.


- RUBBISH, DEBRIS, AND GARBAGE SHALL BE REMOVED FROM THE JOB SITE AND DISPOSED OF LEGALLY, AS ALLOWED BY THE SNOHOMISH COUNTY ENGINEERING DESIGN AND DEVELOPMENT STANDARDS AND THE WSDOT STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION (CURRENT EDITION).
- THE CONTRACTOR SHALL MAINTAIN HAND DRAWN REDLINES, FIELD NOTES AND PHOTOGRAPHS ("FIELD DOCUMENTATION") OF ALL IMPROVEMENTS AS THE WORK PROGRESSES, AS REQUIRED BY THE SPECIFICATIONS. THE CONTRACTOR SHALL ALSO TAKE PHOTOGRAPHS AND VIDEO TO DOCUMENT CONDITIONS PRIOR TO CONSTRUCTION. THE CONTRACTOR'S FIELD DOCUMENTATION SHALL BE MAINTAINED ON SITE AND SHALL BE AVAILABLE FOR REVIEW BY SNOHOMISH COUNTY AND THE ENGINEER AT ALL TIMES.

EXISTING UTILITY NOTES:

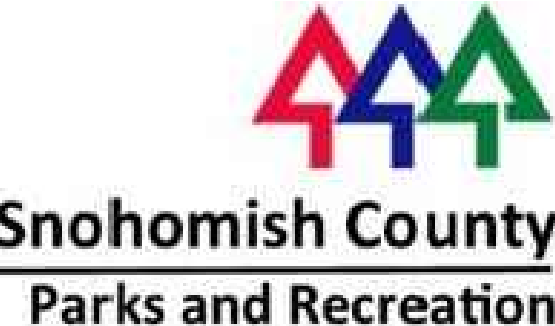
- THE LOCATIONS OF EXISTING UTILITIES SHOWN ON THESE DRAWINGS ARE APPROXIMATE AND ARE BASED ON SURVEYED UTILITY MARKINGS AND FEATURES VISIBLE AT THE SURFACE, SUPPLEMENTED BY AS-BUILT INFORMATION PROVIDED BY SNOHOMISH COUNTY.
- ALL UTILITY WORK WITHIN THE BNSF RIGHT-OF-WAY INCLUDING, BUT NOT LIMITED TO, LOCATION, PROTECTION, INSTALLATION, AND RELOCATION OF UTILITIES SHALL COMPLY WITH BNSF'S UTILITY ACCOMMODATION MANUAL ([HTTP://WWW.BNSF.COM/COMMUNITIES/FAQS/PDF/UTILITY.PDF](http://www.bnsf.com/communities/faqs/pdf/utility.pdf)).
- FOR ALL WORK OUTSIDE OF THE BNSF RIGHT-OF-WAY, THE CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD LOCATING ALL UTILITIES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL CALL THE UTILITY LOCATION REQUEST CENTER (ONE-CALL CENTER) AT 811 OR 1-800-424-5555 FOR UTILITY LOCATIONS NOT LESS THAN TWO (2) BUSINESS DAYS BEFORE THE SCHEDULED DATE FOR TRENCHING OR EARTHWORK THAT MAY IMPACT EXISTING UTILITIES.
- THE SIZE, LOCATION, AND TYPE OF UNDERGROUND UTILITIES EXPOSED OR MODIFIED BY THE CONTRACTOR SHALL BE ACCURATELY NOTED AND PLACED ON THE CONTRACTOR'S RECORD DRAWINGS.
- THE CONDITION OF ALL ABANDONED UTILITIES THAT INTERFERE WITH EXECUTION OF THE WORK SHALL BE VERIFIED BY THE UTILITY OWNER PRIOR TO DISTURBANCE OR MODIFICATION. THE CONTRACTOR MAY ONLY TAKE ACTION AFTER WRITTEN APPROVAL HAS BEEN RECEIVED FROM THE UTILITY OWNER BY THE SNOHOMISH COUNTY.
- THE CONTRACTOR SHALL ENSURE THAT OPERATIONS OF EXISTING SEWER, WATER, POWER, TELECOMMUNICATIONS, AND OTHER UTILITY SYSTEMS SERVING THE RANGER RESIDENCE ARE NOT DISRUPTED DURING CONSTRUCTION UNLESS NECESSARY FOR UTILITY WORK SHOWN ON THESE PLANS. THE CONTRACTOR SHALL PROVIDE THE COUNTY WITH 1 WEEK MIN. ADVANCE WRITTEN NOTICE OF ANY NECESSARY DISRUPTION TO SERVICES AND SHUT DOWN SHALL REQUIRE WRITTEN APPROVAL BY SNOHOMISH COUNTY.


APPROVED FOR CONSTRUCTION
BY: 
PERMIT NO. NA
DATE 10/29/2020
PFN: 19-103913LDA

100% CONSTRUCTION DRAWINGS/BID SET



720 Olive Way | Suite 1900 | Seattle, WA 98101





REVISIONS				
REV	DATE	BY	APP'D	DESCRIPTION

DESIGNED BY: PH

DRAWN BY: CH/TG

CHECKED BY: DR

APPROVED BY: PH

SCALE: AS NOTED

DATE: SEPTEMBER 2020

**MEADOWDALE BEACH PARK AND ESTUARY DESIGN**

PFN 19-103913LDA

**GENERAL NOTES**

**G-3**

SHEET # **2A** OF **81**

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Sep 15, 2020 8:53am chiewett

ONE INCH  
AT FULL SIZE IF NOT ONE  
INCH SCALE ACCORDINGLY



SECTION 5, TOWNSHIP 27 N., RANGE 4 E

**270405-002-001-00**

**270405-002-002-00**

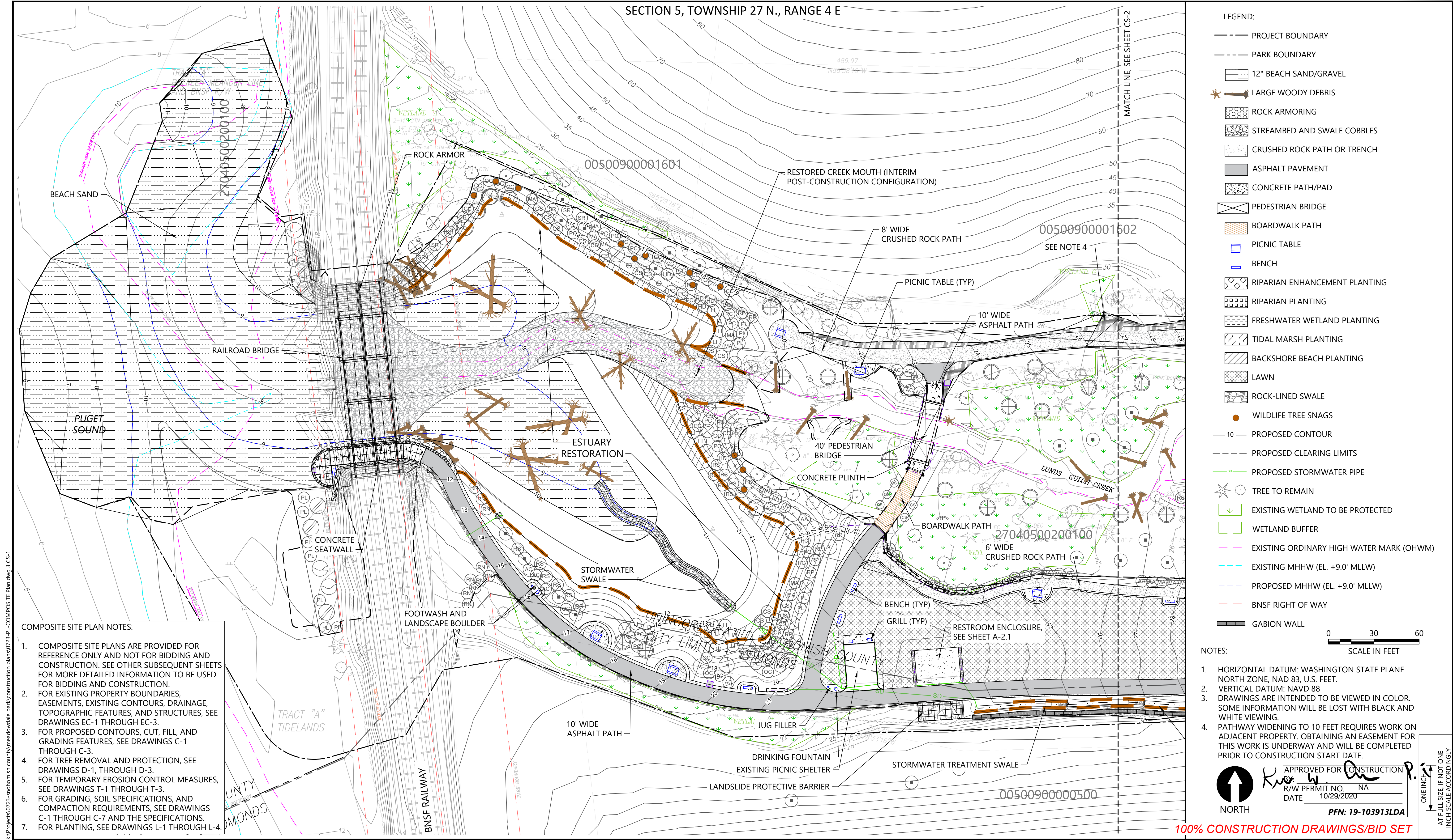
SOUTH 17°00' EAST 7.00 CHAINS TO THE TERMINAL POINT OF DESCRIPTION.

ALL SITUATE IN THE COUNTY OF SNOHOMISH, STATE OF WASHINGTON.

**100% CONSTRUCTION DRAWINGS/BID SET**









SECTION 5, TOWNSHIP 27 N., RANGE 4 E

NOTES:

1. HORIZONTAL DATUM: WASHINGTON STATE PLANE NORTH ZONE, NAD 83, U.S. FEET.
2. VERTICAL DATUM: NAVD 88
3. DRAWINGS ARE INTENDED TO BE VIEWED IN COLOR. SOME INFORMATION WILL BE LOST WITH BLACK AND WHITE VIEWING.
4. PATHWAY WIDENING TO 10 FEET REQUIRES WORK ON ADJACENT PROPERTY. OBTAINING AN EASEMENT FOR THIS WORK IS UNDERWAY AND WILL BE COMPLETED PRIOR TO CONSTRUCTION START DATE.
5. CONTRACTOR SHALL PROVIDE CONTINUOUS UTILITY SERVICE AND DRIVEWAY ACCESS TO RANGER RESIDENCE.

LEGEND:

- PARK BOUNDARY
- PROJECT BOUNDARY
- 12" BEACH SAND/GRAVEL
- LARGE WOODY DEBRIS
- ROCK ARMORING
- STREAMBED AND SWALE COBBLES
- CRUSHED ROCK PATH OR TRENCH
- ASPHALT PAVEMENT
- CONCRETE PATH/PAD
- PEDESTRIAN BRIDGE
- BOARDWALK PATH
- PICNIC TABLE
- BENCH
- RIPARIAN ENHANCEMENT PLANTING
- RIPARIAN PLANTING
- FRESHWATER WETLAND PLANTING
- TIDAL MARSH PLANTING
- BACKSHORE BEACH PLANTING
- LAWN
- ROCK-LINED SWALE
- WILDLIFE TREE SNAGS
- 10' PROPOSED CONTOUR
- PROPOSED CLEARING LIMITS
- PROPOSED STORMWATER PIPE
- TREE TO REMAIN
- EXISTING WETLAND TO BE PROTECTED
- WETLAND BUFFER
- EXISTING ORDINARY HIGH WATER MARK (OHWM)
- REINFORCED TURF
- SPIRAL NAIL ROAD REINFORCEMENT
- PAVEMENT TO BE REMOVED AND REPLACED
- GRIND AND OVERLAY EXISTING PAVEMENT
- GABION WALL

0 30 60  
SCALE IN FEET



COMPOSITE SITE PLAN NOTES:

1. COMPOSITE SITE PLANS ARE PROVIDED FOR REFERENCE ONLY AND NOT FOR BIDDING AND CONSTRUCTION. SEE OTHER SUBSEQUENT SHEETS FOR MORE DETAILED INFORMATION TO BE USED FOR BIDDING AND CONSTRUCTION.
2. FOR EXISTING PROPERTY BOUNDARIES, EASEMENTS, EXISTING CONTOURS, DRAINAGE, TOPOGRAPHIC FEATURES, AND STRUCTURES, SEE DRAWINGS EC-1 THROUGH EC-3.
3. FOR PROPOSED CONTOURS, CUT, FILL, AND GRADING FEATURES, SEE DRAWINGS C-1 THROUGH C-3.
4. FOR TREE REMOVAL AND PROTECTION, SEE DRAWINGS D-1, THROUGH D-3.
5. FOR TEMPORARY EROSION CONTROL MEASURES, SEE DRAWINGS T-1 THROUGH T-3.
6. FOR GRADING, SOIL SPECIFICATIONS, AND COMPACTION REQUIREMENTS, SEE DRAWINGS C-1 THROUGH C-7 AND THE SPECIFICATIONS.
7. FOR PLANTING, SEE DRAWINGS L-1 THROUGH L-4.

APPROVED FOR CONSTRUCTION  
R/W PERMIT NO. NA  
DATE 10/29/2020  
PFN: 19-103913LDA

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REVISIONS					DESCRIPTION
REV	DATE	BY	APP'D		

DESIGNED BY: PH  
DRAWN BY: CH/TG  
CHECKED BY: DR  
APPROVED BY: PH  
SCALE: 1" = 30'  
DATE: SEPTEMBER 2020

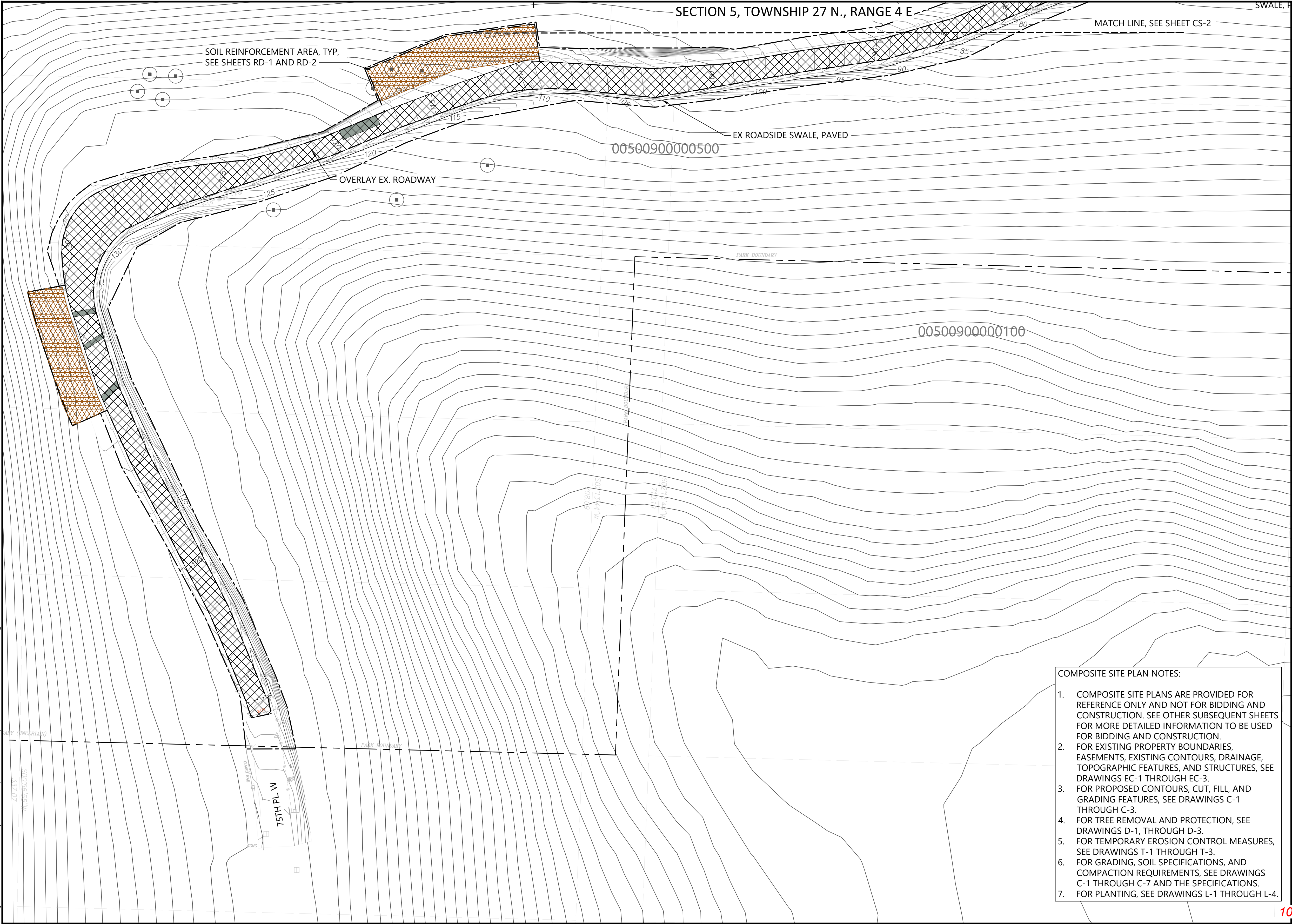
MEADOWDALE BEACH PARK  
AND ESTUARY DESIGN  
PFN 19-103913LDA

COMPOSITE SITE PLAN (2 OF 3)

CS-2

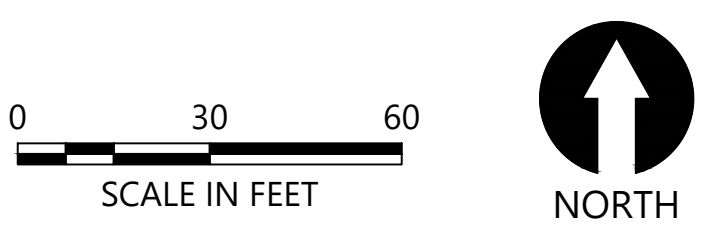
SHEET # 4 OF 81





- LEGEND:
- PARK BOUNDARY
  - PROJECT BOUNDARY
  - EXISTING CONTOUR
  - 10 --- PROPOSED MAJOR CONTOUR
  - 11 --- PROPOSED MINOR CONTOUR
  - PROPOSED CLEARING LIMITS
  - TREE TO REMAIN
  - PAVEMENT TO BE REMOVED AND REPLACED
  - GRIND AND OVERLAY EXISTING ASPHALT PAVEMENT
  - SPIRALNAIL ROAD REINFORCEMENT

- COMPOSITE SITE PLAN NOTES:
1. COMPOSITE SITE PLANS ARE PROVIDED FOR REFERENCE ONLY AND NOT FOR BIDDING AND CONSTRUCTION. SEE OTHER SUBSEQUENT SHEETS FOR MORE DETAILED INFORMATION TO BE USED FOR BIDDING AND CONSTRUCTION.
  2. FOR EXISTING PROPERTY BOUNDARIES, EASEMENTS, EXISTING CONTOURS, DRAINAGE, TOPOGRAPHIC FEATURES, AND STRUCTURES, SEE DRAWINGS EC-1 THROUGH EC-3.
  3. FOR PROPOSED CONTOURS, CUT, FILL, AND GRADING FEATURES, SEE DRAWINGS C-1 THROUGH C-3.
  4. FOR TREE REMOVAL AND PROTECTION, SEE DRAWINGS D-1, THROUGH D-3.
  5. FOR TEMPORARY EROSION CONTROL MEASURES, SEE DRAWINGS T-1 THROUGH T-3.
  6. FOR GRADING, SOIL SPECIFICATIONS, AND COMPACTION REQUIREMENTS, SEE DRAWINGS C-1 THROUGH C-7 AND THE SPECIFICATIONS.
  7. FOR PLANTING, SEE DRAWINGS L-1 THROUGH L-4.



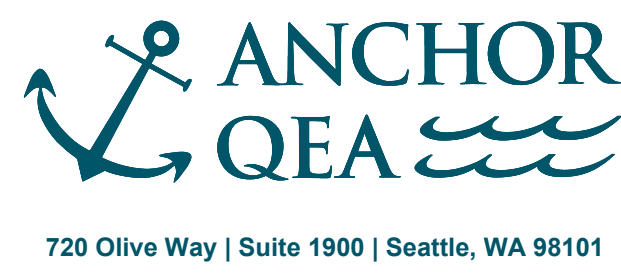
- NOTES:
1. HORIZONTAL DATUM: WASHINGTON STATE PLANE NORTH ZONE, NAD 83, U.S. FEET.
  2. VERTICAL DATUM: NAVD 88
  3. DRAWINGS ARE INTENDED TO BE VIEWED IN COLOR. SOME INFORMATION WILL BE LOST WITH BLACK AND WHITE VIEWING.
  4. CONTRACTOR SHALL PROVIDE CONTINUOUS UTILITY SERVICE AND DRIVEWAY ACCESS TO RANGER RESIDENCE.

APPROVED FOR CONSTRUCTION  
R/W PERMIT NO. NA  
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PFN: 19-103913LDA

100% CONSTRUCTION DRAWINGS/BID SET

ONE INCH = 10 FEET  
AT FULL SIZE, IF NOT ONE INCH SCALE ACCORDINGLY

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Sep 15, 2020 8:54am chiewett



REVISIONS					DESCRIPTION
REV	DATE	BY	APP'D		

DESIGNED BY: PH  
DRAWN BY: CH/TG  
CHECKED BY: DR  
APPROVED BY: PH  
SCALE: AS NOTED  
DATE: SEPTEMBER 2020

MEADOWDALE BEACH PARK  
AND ESTUARY DESIGN  
PFN 19-103913LDA

COMPOSITE SITE PLAN (3 OF 3)

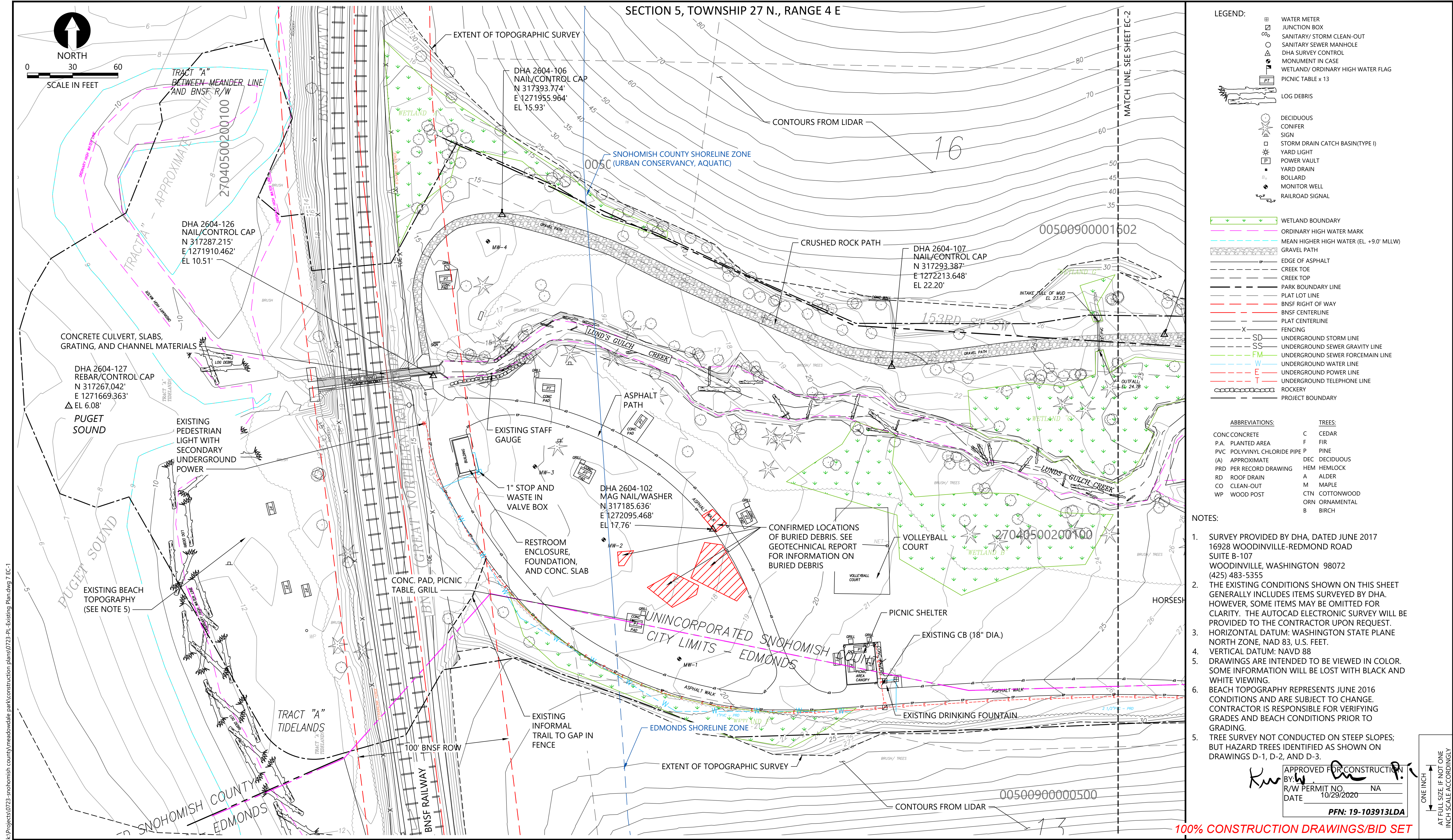
CS-3

SHEET # 5 OF 81

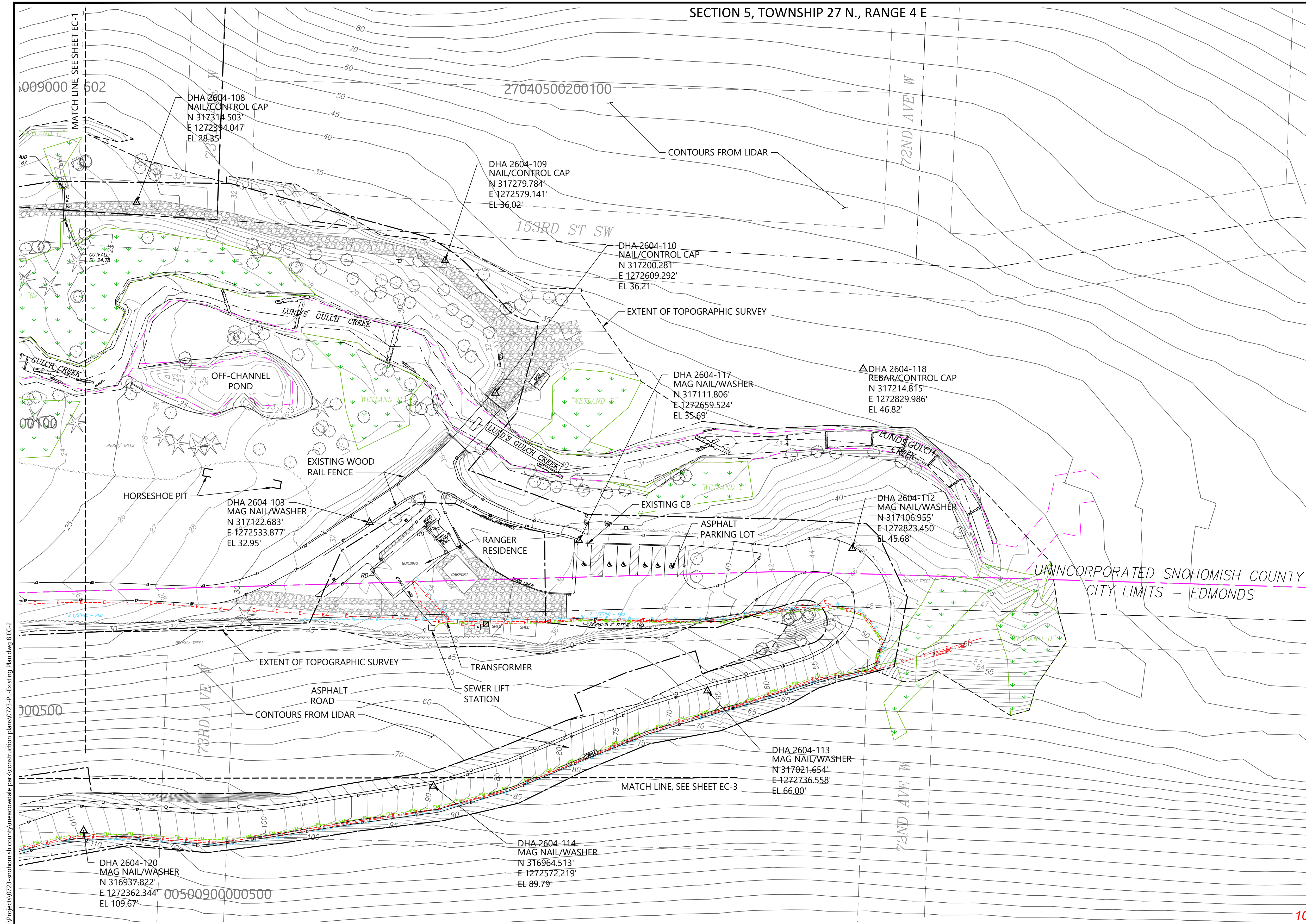












- LEGEND:
- WATER METER
  - JUNCTION BOX
  - SANITARY/ STORM CLEAN-OUT
  - SANITARY SEWER MANHOLE
  - DHA SURVEY CONTROL
  - MONUMENT IN CASE
  - WETLAND/ ORDINARY HIGH WATER FLAG
  - PICNIC TABLE x 13
  - LOG DEBRIS
  - DECIDUOUS
  - CONIFER
  - SIGN
  - STORM DRAIN CATCH BASIN(TYPE I)
  - YARD LIGHT
  - POWER VAULT
  - YARD DRAIN
  - BOLLARD
  - MONITOR WELL
  - RAILROAD SIGNAL
  - WETLAND BOUNDARY
  - ORDINARY HIGH WATER MARK
  - MEAN HIGHER HIGH WATER (EL. +9.0' MLLW)
  - GRAVEL PATH
  - EDGE OF ASPHALT
  - CREEK TOE
  - CREEK TOP
  - PARK BOUNDARY LINE
  - PLAT LOT LINE
  - BNSF RIGHT OF WAY
  - BNSF CENTERLINE
  - PLAT CENTERLINE
  - FENCING
  - SD UNDERGROUND STORM LINE
  - SS UNDERGROUND SEWER GRAVITY LINE
  - FM UNDERGROUND SEWER FORCEMAIN LINE
  - W UNDERGROUND WATER LINE
  - E UNDERGROUND POWER LINE
  - T UNDERGROUND TELEPHONE LINE
  - ROCKERY
  - PROJECT BOUNDARY

- ABBREVIATIONS:
- CONC CONCRETE
  - P.A. PLANTED AREA
  - PVC POLYVINYL CHLORIDE PIPE
  - (A) APPROXIMATE
  - PRD PER RECORD DRAWING
  - RD ROOF DRAIN
  - CO CLEAN-OUT
  - WP WOOD POST
  - C CEDAR
  - F FIR
  - P PINE
  - DEC DECIDUOUS
  - HEM HEMLOCK
  - A ALDER
  - M MAPLE
  - CTN COTTONWOOD
  - ORN ORNAMENTAL
  - B BIRCH



- NOTES:
- SURVEY PROVIDED BY DHA, DATED JUNE 2017 16928 WOODINVILLE-REDMOND ROAD SUITE B-107 WOODINVILLE, WASHINGTON 98072 (425) 483-5355
  - THE EXISTING CONDITIONS SHOWN ON THIS SHEET GENERALLY INCLUDES ITEMS SURVEYED BY DHA. HOWEVER, SOME ITEMS MAY BE OMITTED FOR CLARITY. THE AUTOCAD ELECTRONIC SURVEY WILL BE PROVIDED TO THE CONTRACTOR UPON REQUEST.
  - HORIZONTAL DATUM: WASHINGTON STATE PLANE NORTH ZONE, NAD 83, U.S. FEET.
  - VERTICAL DATUM: NAVD 88
  - DRAWINGS ARE INTENDED TO BE VIEWED IN COLOR. SOME INFORMATION WILL BE LOST WITH BLACK AND WHITE VIEWING.
  - TREE SURVEY NOT CONDUCTED ON STEEP SLOPES; BUT HAZARD TREES IDENTIFIED AS SHOWN ON DRAWINGS D-1, D-2, AND D-3.

APPROVED FOR CONSTRUCTION  
R/W PERMIT NO. NA  
DATE 10/29/2020  
PFN: 19-103913LDA

100% CONSTRUCTION DRAWINGS/BID SET

DUANE HARTMAN & ASSOCIATES, INC.  
Surveyors

16928 WOODINVILLE-REDMOND ROAD, B-107 WOODINVILLE, WASHINGTON 98072 (425) 483-5355 FAX (425) 483-4650

Snohomish County  
Parks and Recreation

REVISIONS				
REV	DATE	BY	APP'D	DESCRIPTION

DESIGNED BY: PH  
DRAWN BY: CH/TG  
CHECKED BY: DR  
APPROVED BY: PH  
SCALE: 1" = 30'  
DATE: SEPTEMBER 2020

MEADOWDALE BEACH PARK  
AND ESTUARY DESIGN  
PFN 19-103913LDA

EXISTING CONDITIONS PLAN (2 OF 3)

EC-2

SHEET # 8 OF 81







SECTION 5, TOWNSHIP 27 N., RANGE 4 E

**UTILITY LOCATIONS:**  
ALL UTILITY WORK WITHIN THE BNSF RIGHT-OF-WAY INCLUDING, BUT NOT LIMITED TO, LOCATION, PROTECTION, INSTALLATION, AND RELOCATION OF UTILITIES SHALL COMPLY WITH BNSF'S UTILITY ACCOMMODATION MANUAL (HTTP://WWW.BNSF.COM/COMMUNITIES/FAQS/PDF/UTILITY.PDF).

FOR ALL WORK OUTSIDE THE BNSF RIGHT-OF-WAY, THE CONTRACTOR SHALL CALL THE ONE-CALL UTILITY CENTER AT 811 OR 1-800-424-5555 FOR UTILITY LOCATIONS NOT LESS THAN TWO (2) BUSINESS DAYS BEFORE DEMOLITION WORK. FOR ADDITIONAL REQUIREMENTS, SEE SHEET G-3.

**WORK WITHIN BNSF RIGHT-OF-WAY:**  
FOR ALL WORK WITHIN BNSF RIGHT-OF-WAY, SEE PROJECT SPECIFICATIONS FOR REQUIREMENTS OF WORK WITHIN BNSF RIGHT-OF-WAY AND MEADOWDALE BEACH RAILROAD BRIDGE CIVIL AND STRUCTURAL DRAWINGS BY HANSON PROFESSIONAL SERVICES, INC.

PLACE SILT FENCE AROUND STAGING AND LAYDOWN AREA DURING BRIDGE CONSTRUCTION (NOTE 9)  
C233

TEMPORARY STOCKPILE AND STAGING AREA FOR RAILROAD BRIDGE CONSTRUCTION

TEMPORARY DIVERSION PIPE THROUGH EX CULVERT (SEE NOTE 8)

PLACE SILT FENCE AROUND STAGING AND LAYDOWN AREA DURING BRIDGE CONSTRUCTION (NOTE 9)  
C233

IN-WATER TURBIDITY CURTAIN, EXTEND CURTAIN TO OUTER LIMITS OF WORK AS REQUIRED BY PERMIT

TEMPORARY STOCKPILE AND STAGING AREA FOR RAILROAD BRIDGE CONSTRUCTION

PLACE SILT FENCE AT CLEARING LIMITS (NOTE 7)  
C233

TEMPORARY DIVERSION PIPE INLET FOR DRAINAGE FROM SITE, MAINTAIN DRAINAGE PATHS TO PIPE INLET (NOTE 8)

TEMPORARY DIVERSION PIPE FOR LUND'S GULCH CREEK

PLACE SILT FENCE AT OHW UNTIL ESTUARY AND STREAM RESTORATION REQUIRE THE SILT FENCE TO BE RELOCATED TO THE CLEARING LIMITS  
C233

PLACE SILT FENCE AT CLEARING LIMITS (NOTE 7)  
C233

STOCKPILE AREA

MARK CLEARING LIMITS  
C103

PLACE SILT FENCE AT CLEARING LIMITS (NOTE 7)  
C233

INSTALL CATCH BASIN INLET PROTECTION IN NEW CATCH BASIN UNTIL SITE IS COMPLETELY STABILIZED  
C220

MARK CLEARING LIMITS  
C103

PLACE WATTLES UPSLOPE OF NEW SWALE TO PROTECT SWALE UNTIL ADJACENT SURFACES ARE STABILIZED  
C235

FLOATATION

SEE NOTES  
IMPERVIOUS TURBIDITY CURTAIN

1 IN-WATER TURBIDITY CURTAIN  
T-1 SCALE: NOT TO SCALE

NOTES:

1. AROUND PILE DRIVING AREAS AND EXISTING PILE REMOVAL AREAS, LENGTH OF CURTAIN SHALL EXTEND TO MUDLINE FOR ALL TIDE LEVELS.
2. ALL OTHER AREAS, WHERE DEBRIS FROM DEMOLITION WORK MAY EXIST, LENGTH OF CURTAIN SHALL BE 6 FEET.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE TURBIDITY CURTAIN THROUGHOUT ALL TIDAL CONDITIONS AND WEATHER EXPECTED DURING THE CONSTRUCTION PERIOD, AS REQUIRED BY THE APPROVED PROJECT PERMITS.
4. SEE SPECIFICATIONS FOR MATERIAL REQUIREMENTS.

LEGEND:

- CLEARING LIMITS
- SILT FENCE
- STRAW WATTLE
- BULK BAG COFFERDAM
- STABILIZED ROCK CONSTRUCTION ENTRANCE
- TC IN-WATER TURBIDITY CURTAIN
- C103 SNOHOMISH COUNTY BMP NUMBER (SEE TABLE)
- CATCH BASIN INLET PROTECTION
- STAGING AND STOCKPILE AREA
- EXISTING WETLAND TO BE PROTECTED

--- BNSF RIGHT OF WAY

**STANDARD TESC DETAILS LEGEND:**

THE FOLLOWING ARE STANDARD SNOHOMISH COUNTY EROSION AND SEDIMENT CONTROL (ESC) BEST MANAGEMENT PRACTICE (BMP) DETAILS:

BMP	DESCRIPTION
C103	HIGH VISIBILITY PLASTIC OR METAL FENCE
C105	STABILIZED CONSTRUCTION ENTRANCE
C220	STORM DRAIN INLET PROTECTION
C233	SILT FENCE
C235	WATTLES



0 30 60  
SCALE IN FEET

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4. SEE SHEET T-3 FOR TESC NOTES, SEQUENCE AND PHASING, AND ADDITIONAL REQUIREMENTS.
5. SEE RAILROAD BRIDGE DRAWINGS BY HANSON PROFESSIONAL SERVICES, INC. FOR LOCATION OF TEMPORARY EMBANKMENT FOR LAYDOWN PADS AND BRIDGE ACCESS PADS FOR BRIDGE CONSTRUCTION.
6. SEE PLANTING PLANS (SHEETS L-1 THROUGH L-3) AND CONSTRUCTION MATERIAL PLANS (SHEETS CM-1 THROUGH CM-3) FOR PERMANENT STABILIZATION.
7. SILT FENCE COLOR ALONG CLEARING LIMITS SHALL BE ORANGE.
8. SEE DRAWING T-3, "PROJECT SPECIFIC CLEARING, GRADING, EROSION, AND SEDIMENT CONTROL NOTES", NOTE 9, FOR SPECIFIC REQUIREMENTS FOR DIVERTING AND CONTROLLING THE FLOW OF WATER THROUGH THE SITE AND FOR FLOW STATISTICS FOR LUND'S GULCH CREEK. A TEMPORARY DIVERSION PIPE WILL BE REQUIRED FOR TEMPORARY DIVERSION OF LUND'S GULCH CREEK DURING RAILROAD BRIDGE AND ESTUARY CONSTRUCTION. PROVIDE A SEPARATE TEMPORARY DIVERSION PIPE, AS SHOWN, TO CONVEY DRAINAGE FROM THE SITE. MAINTAIN DRAINAGE FROM THE SITE TO A LOW POINT AT THE TEMPORARY PIPE INLET, AS SHOWN.
9. SILT FENCE AND OTHER SEDIMENT CONTROLS SHALL BE RELOCATED, AS NEEDED, TO ACCOMMODATE DIFFERENT PHASES OF CONSTRUCTION.
10. CATCH BASIN INLET PROTECTION SHALL BE INSTALLED AND MAINTAINED TO THE EXTENT NECESSARY ALONG APPROVED PROJECT HAUL ROUTES.
11. SEE SHEETS D-1, D-2, AND D-3 FOR WETLAND BOUNDARY FENCING, TREE PROTECTION FENCING, AND CLEARING LIMITS.

APPROVED FOR CONSTRUCTION  
BY: *[Signature]*  
R/W PERMIT NO. NA  
DATE 10/29/2020  
PFN: 19-103913LDA

100% CONSTRUCTION DRAWINGS/BID SET



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REV	DATE	BY	APP'D	DESCRIPTION

DESIGNED BY: DR  
DRAWN BY: CH/TG  
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APPROVED BY: DR  
SCALE: 1" = 30'  
DATE: SEPTEMBER 2020

**MEADOWDALE BEACH PARK  
AND ESTUARY DESIGN**  
PFN 19-103913LDA

**CONSTRUCTION STORMWATER POLLUTION  
PREVENTION PLAN (1 OF 3)**

**T-1**

SHEET # 10 OF 81



SECTION 5, TOWNSHIP 27 N., RANGE 4 E

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FOR ALL WORK OUTSIDE THE BNSF RIGHT-OF-WAY, THE CONTRACTOR SHALL CALL THE ONE-CALL UTILITY CENTER AT 811 OR 1-800-424-5555 FOR UTILITY LOCATIONS NOT LESS THAN TWO (2) BUSINESS DAYS BEFORE DEMOLITION WORK. FOR ADDITIONAL REQUIREMENTS, SEE SHEET G-3.

- LEGEND:
- CLEARING LIMITS
  - SILT FENCE
  - STRAW WATTLE
  - BULK BAG COFFERDAM
  - STABILIZED ROCK CONSTRUCTION ENTRANCE
  - IN-WATER TURBIDITY CURTAIN
  - CATCH BASIN INLET PROTECTION
  - STAGING AND STOCKPILE AREA
  - EXISTING WETLAND TO BE PROTECTED
- C103** SNOHOMISH COUNTY BMP NUMBER (SEE TABLE)

**STANDARD TESC DETAILS LEGEND:**

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- SEE SHEET T-3 FOR TESC NOTES, SEQUENCE AND PHASING, AND ADDITIONAL REQUIREMENTS.
- SEE RAILROAD BRIDGE DRAWINGS BY HANSON PROFESSIONAL SERVICES, INC. FOR LOCATION OF TEMPORARY EMBANKMENT FOR LAYDOWN PADS AND BRIDGE ACCESS PADS FOR BRIDGE CONSTRUCTION.
- SEE PLANTING PLANS (SHEETS L-1 THROUGH L-3) AND CONSTRUCTION MATERIAL PLANS (SHEETS CM-1 THROUGH CM-3) FOR PERMANENT STABILIZATION.
- SILT FENCE COLOR ALONG CLEARING LIMITS SHALL BE ORANGE.
- CATCH BASIN INLET PROTECTION SHALL BE INSTALLED AND MAINTAINED TO THE EXTENT NECESSARY ALONG APPROVED PROJECT HAUL ROUTES.

APPROVED FOR CONSTRUCTION  
R/W PERMIT NO. NA  
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100% CONSTRUCTION DRAWINGS/BID SET

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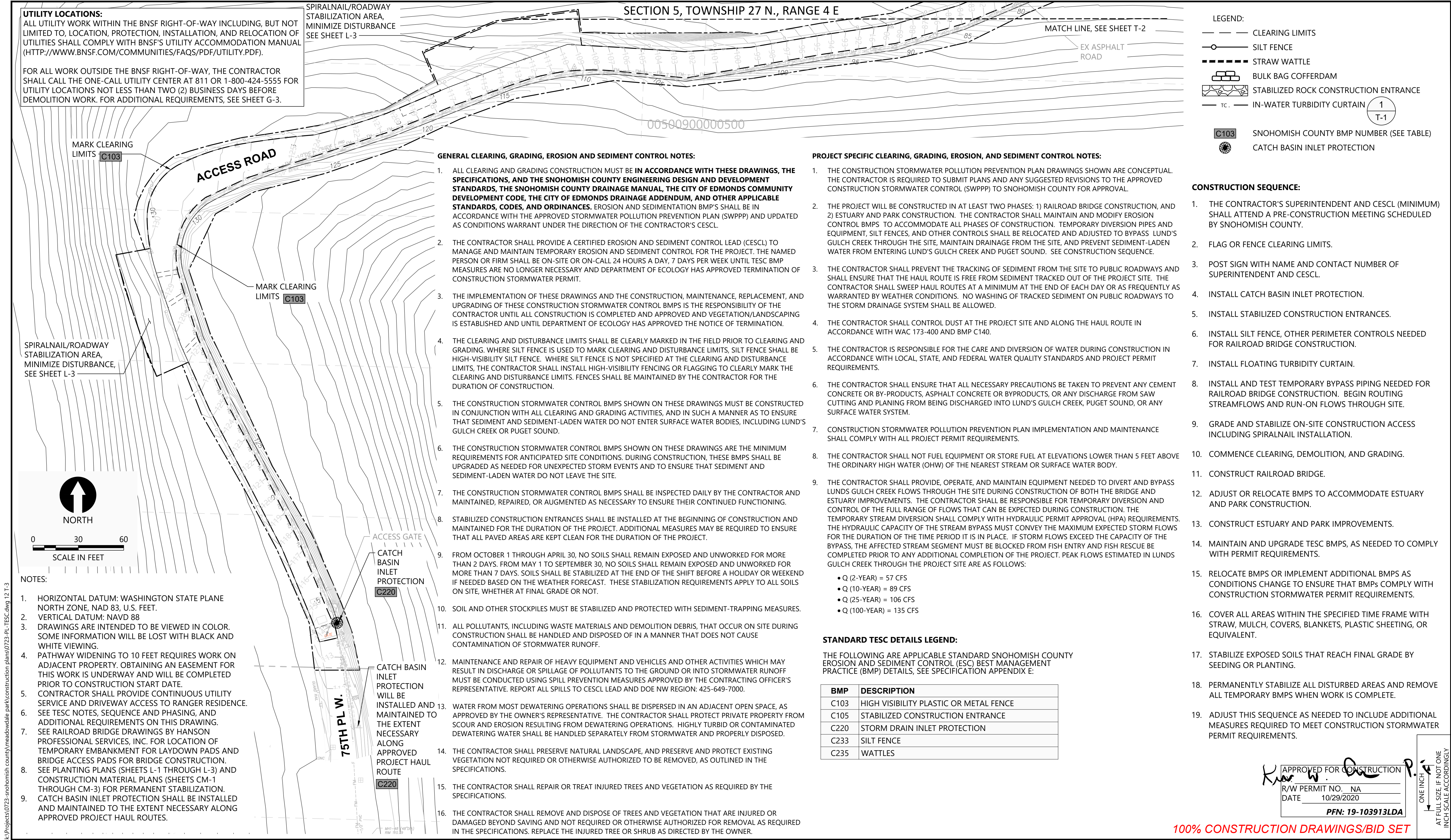
**MEADOWDALE BEACH PARK  
AND ESTUARY DESIGN**  
PFN 19-103913LDA

**CONSTRUCTION STORMWATER POLLUTION  
PREVENTION PLAN (2 OF 3)**

**T-2**

SHEET # 11 OF 81





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SECTION 5, TOWNSHIP 27 N., RANGE 4 E

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**WORK WITHIN BNSF RIGHT-OF-WAY:**  
FOR ALL WORK WITHIN BNSF RIGHT-OF-WAY, SEE PROJECT SPECIFICATIONS FOR REQUIREMENTS OF WORK WITHIN BNSF RIGHT-OF-WAY AND MEADOWDALE BEACH RAILROAD BRIDGE CIVIL AND STRUCTURAL DRAWINGS BY HANSON PROFESSIONAL SERVICES, INC.

SEE HANSON CIVIL DRAWINGS FOR OTHER REMOVALS WITHIN BNSF ROW

DEMO KEY:

- 1 SEE HANSON CIVIL AND STRUCTURAL DRAWINGS FOR ALL TRACK, EMBANKMENT INCLUDING ROCK, CONCRETE CULVERT, SLABS, RETAINING WALLS, AND ANY ASSOCIATED FEATURES DEMOLITION WITHIN BNSF ROW
- 2 REMOVE GRILL
- 3 REMOVE SHALLOW GROUNDWATER MONITORING WELL (TYP. OF 4)
- 4 PICNIC TABLES TO BE REMOVED BY OWNER
- 5 REMOVE RESTROOM ENCLOSURE, FOUNDATION, SINK, AND CONCRETE SLAB (CONTRACTOR TO SECURE DEMOLITION PERMIT)
- 6 REMOVE ROCK ARMORING AND CONCRETE CHANNEL ARMOR ALONG STREAM CHANNEL AND SALVAGE LARGE WOODY DEBRIS (LWD)
- 7 REMOVE PICNIC SHELTER ROOF, PROTECT UNDERLAYMENT
- 8 REMOVE VOLLEYBALL NET AND POSTS
- 9 REMOVE MEMORIAL BENCH CONCRETE SLAB AND BENCH FRAME (PLASTIC SLATS TO BE REMOVED BY OWNER PRIOR TO CONSTRUCTION)
- 10 CHANNEL GRATING REMOVED BY OWNER
- 11 REMOVE GRASSCRETE
- 12 SALVAGE AND STOCKPILE DRIFTWOOD FROM BEACH AREA FOR REUSE (SALVAGE ONLY FROM WITHIN GRADING AND CLEARING LIMITS)
- 13 REMOVE STEEL GATES AND DOWNSTREAM CULVERT OPENING (SEE HANSON STRUCTURAL AND CIVIL DRAWINGS)

UTILITY DEMO KEY:

- U1 REMOVE WATER LINE
- U2 REMOVE BURIED POWER LINE AND CONDUIT TO SOURCE POINT SHOWN ON SHEET E-2, EXISTING POWER RISER DIAGRAM DEMOLITION PLAN (40 LINEAR FEET)
- U3 ABANDON UTILITY LINE
- U4 REMOVE HYDRANT, DRINKING FOUNTAIN AND DRAIN
- U5 REMOVE SOLID CONCRETE PEDESTRIAN LIGHT POLE AND CONCRETE FOOTING (DIRECT BURIAL)

LEGEND:

- PARK BOUNDARY
- PROJECT BOUNDARY
- BNSF RIGHT OF WAY
- REMOVE CONCRETE SLABS AND CHANNEL MATERIALS
- REMOVE ASPHALT PAVING - PROTECT CRUSHED ROCK BASE FOR NEW PAVEMENT
- REMOVE ASPHALT PAVING AND CRUSHED ROCK BASE
- REMOVE CONCRETE PAVING
- REMOVE CRUSHED ROCK SURFACING
- CLEAR AND GRUB VEGETATION
- REMOVE VOLLEYBALL COURT SURFACING
- REMOVE STRUCTURE
- REMOVE ROCK ARMORING
- SALVAGE STREAMBED COBBLE AND LARGE WOODY DEBRIS
- CONFIRMED LOCATIONS OF BURIED DEBRIS (SEE SHEET C-1)
- REMOVE UTILITY LINE
- ABANDON AND PLUG UTILITY LINE
- TEMPORARY CONSTRUCTION FENCING
- TREE PROTECTION FENCING
- WETLAND PROTECTION FENCING
- CLEARING LIMITS
- REMOVE FEATURE
- REMOVE/SALVAGE TREE WITH ROOTBALL
- TOP AND GIRDLE TREE, LEAVING 20-30' SNAG
- EXISTING WETLAND TO BE PROTECTED



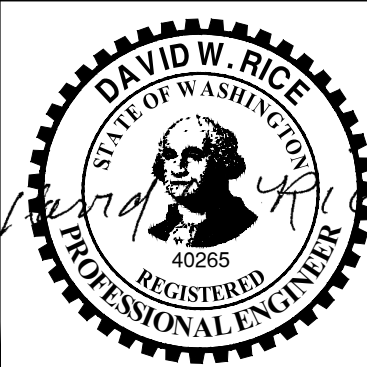
0 30 60  
SCALE IN FEET

NOTES:

1. SURVEY PROVIDED BY DHA, DATED JUNE 2017.
2. HORIZONTAL DATUM: WASHINGTON STATE PLANE NORTH ZONE, NAD 83, U.S. FEET
3. VERTICAL DATUM: NAVD 88
4. ALL WORK WITHIN CRITICAL AREAS PER PROJECT PERMITS AND REQUIRES ENGINEER TO BE PRESENT.
5. CONTRACTOR SHALL CONTACT BNSF TO ENSURE NO SIGNAL OR TELECOM CABLES ARE LOCATED IN EXCAVATION AREAS; THE BNSF SIGNAL AND TELECOM LOCATE REQUEST NUMBER IS 1-800-533-2891.
6. PATHWAY WIDENING TO 10 FEET REQUIRES WORK ON ADJACENT PROPERTY. OBTAINING AN EASEMENT FOR THIS WORK IS UNDERWAY AND WILL BE COMPLETED PRIOR TO CONSTRUCTION START DATE.
7. TREE SURVEY NOT CONDUCTED ON STEEP SLOPES; BUT HAZARD TREES IDENTIFIED AS SHOWN. SEE SHEETS L-1, L-2, AND L-3 FOR TREE REPLACEMENT PLANTINGS.
8. PRIOR TO DEMOLITION OF SITE UTILITIES, CONTRACTOR SHALL VERIFY THAT UTILITIES ARE NOT NEEDED DURING CONSTRUCTION BY BNSF.
9. CONTRACTOR SHALL SECURE DEMOLITION PERMIT FROM SNOHOMISH COUNTY.

APPROVED FOR CONSTRUCTION  
R/W PERMIT NO. NA  
DATE 10/29/2020  
PFN: 19-103913LDA

100% CONSTRUCTION DRAWINGS/BID SET



REVISIONS					DESCRIPTION
REV	DATE	BY	APP'D		

DESIGNED BY: DR  
DRAWN BY: CH/TG  
CHECKED BY: DR  
APPROVED BY: DR  
SCALE: 1" = 30'  
DATE: SEPTEMBER 2020

MEADOWDALE BEACH PARK  
AND ESTUARY DESIGN  
PFN 19-103913LDA

CLEARING AND DEMOLITION PLAN (1 OF 3)

D-1

SHEET # 13 OF 81



SECTION 5, TOWNSHIP 27 N., RANGE 4 E

**UTILITY LOCATIONS:**  
ALL UTILITY WORK WITHIN THE BNSF RIGHT-OF-WAY INCLUDING, BUT NOT LIMITED TO, LOCATION, PROTECTION, INSTALLATION, AND RELOCATION OF UTILITIES SHALL COMPLY WITH BNSF'S UTILITY ACCOMMODATION MANUAL ([HTTP://WWW.BNSF.COM/COMMUNITIES/FAQS/PDF/UTILITY.PDF](http://www.bnsf.com/communities/faqs/pdf/utility.pdf)).

FOR ALL WORK OUTSIDE THE BNSF RIGHT-OF-WAY, THE CONTRACTOR SHALL CALL THE ONE-CALL UTILITY CENTER AT 811 OR 1-800-424-5555 FOR UTILITY LOCATIONS NOT LESS THAN TWO (2) BUSINESS DAYS BEFORE DEMOLITION WORK. FOR ADDITIONAL REQUIREMENTS, SEE SHEET G-3.

DEMO KEY:

- 13 REMOVE HORSESHOE PITS
- 14 REMOVE WOOD FENCE
- 15 REMOVE ASPHALT PAVING IN DRAINAGE DITCH

UTILITY DEMO KEY:

- U1 REMOVE WATER LINE
- U2 REMOVE POWER LINE
- U3 ABANDON UTILITY LINE
- U4 REMOVE DRINKING FOUNTAIN AND DRAIN

LEGEND:

- PARK BOUNDARY
- PROJECT BOUNDARY
- REMOVE CONCRETE CULVERT, SLABS, GRATING, AND CHANNEL MATERIALS
- REMOVE ASPHALT PAVING - PROTECT CRUSHED ROCK BASE FOR NEW PAVEMENT
- REMOVE ASPHALT PAVING AND CRUSHED ROCK BASE
- REMOVE CONCRETE PAVING
- REMOVE CRUSHED ROCK SURFACING
- CLEAR AND GRUB VEGETATION
- REMOVE VOLLEYBALL COURT SURFACING
- REMOVE STRUCTURE
- REMOVE ROCK ARMORING
- SALVAGE STREAMBED COBBLE AND LARGE WOODY DEBRIS
- CONFIRMED LOCATIONS OF BURIED DEBRIS (SEE SHEET C-1)
- REMOVE UTILITY LINE
- ABANDON AND PLUG UTILITY LINE
- TEMPORARY CHAIN LINK CONSTRUCTION FENCING
- TREE PROTECTION FENCING
- WETLAND PROTECTION FENCING
- CLEARING LIMITS
- REMOVE FEATURE
- REMOVE EXISTING FENCE
- REMOVE/SALVAGE TREE WITH ROOTBALL
- TOP AND GIRDLE TREE, LEAVING 20-30' SNAG
- CUT TREE AND REMOVE STUMP
- EXISTING WETLAND TO BE PROTECTED



0 30 60  
SCALE IN FEET

NOTES:

1. SURVEY PROVIDED BY DHA, DATED JUNE 2017.
2. HORIZONTAL DATUM: WASHINGTON STATE PLANE NORTH ZONE, NAD 83, U.S. FEET
3. VERTICAL DATUM: NAVD 88
4. ALL WORK WITHIN CRITICAL AREAS PER PROJECT PERMITS AND REQUIRES ENGINEER TO BE PRESENT.
5. CONTRACTOR SHALL CONTACT BNSF TO ENSURE NO SIGNAL OR TELECOM CABLES ARE LOCATED IN EXCAVATION AREAS; THE BNSF SIGNAL AND TELECOM LOCATE REQUEST NUMBER IS 1-800-533-2891.
6. PATHWAY WIDENING TO 10 FEET REQUIRES WORK ON ADJACENT PROPERTY. OBTAINING AN EASEMENT FOR THIS WORK IS UNDERWAY AND WILL BE COMPLETED PRIOR TO CONSTRUCTION START DATE.
7. CONTRACTOR SHALL PROVIDE CONTINUOUS UTILITY SERVICE AND DRIVEWAY ACCESS TO RANGER RESIDENCE.
8. TREE SURVEY NOT CONDUCTED ON STEEP SLOPES; BUT HAZARD TREES IDENTIFIED AS SHOWN. SEE SHEETS L-1, L-2, AND L-3 FOR TREE REPLACEMENT PLANTINGS.
9. COORDINATE TEMPORARY USE OF UTILITY SERVICES FOR RAILROAD CONSTRUCTION AND UTILITY DEMOLITION WITH BNSF CONTRACTOR

100% CONSTRUCTION DRAWINGS/BID SET

APPROVED FOR CONSTRUCTION  
BY: *[Signature]*  
R/W PERMIT NO. NA  
DATE 10/29/2020  
PFN: 19-103913LDA

REVISIONS					DESCRIPTION
REV	DATE	BY	APP'D		

DESIGNED BY: PH  
DRAWN BY: CH/TG  
CHECKED BY: DR  
APPROVED BY: DR  
SCALE: 1" = 30'  
DATE: SEPTEMBER 2020

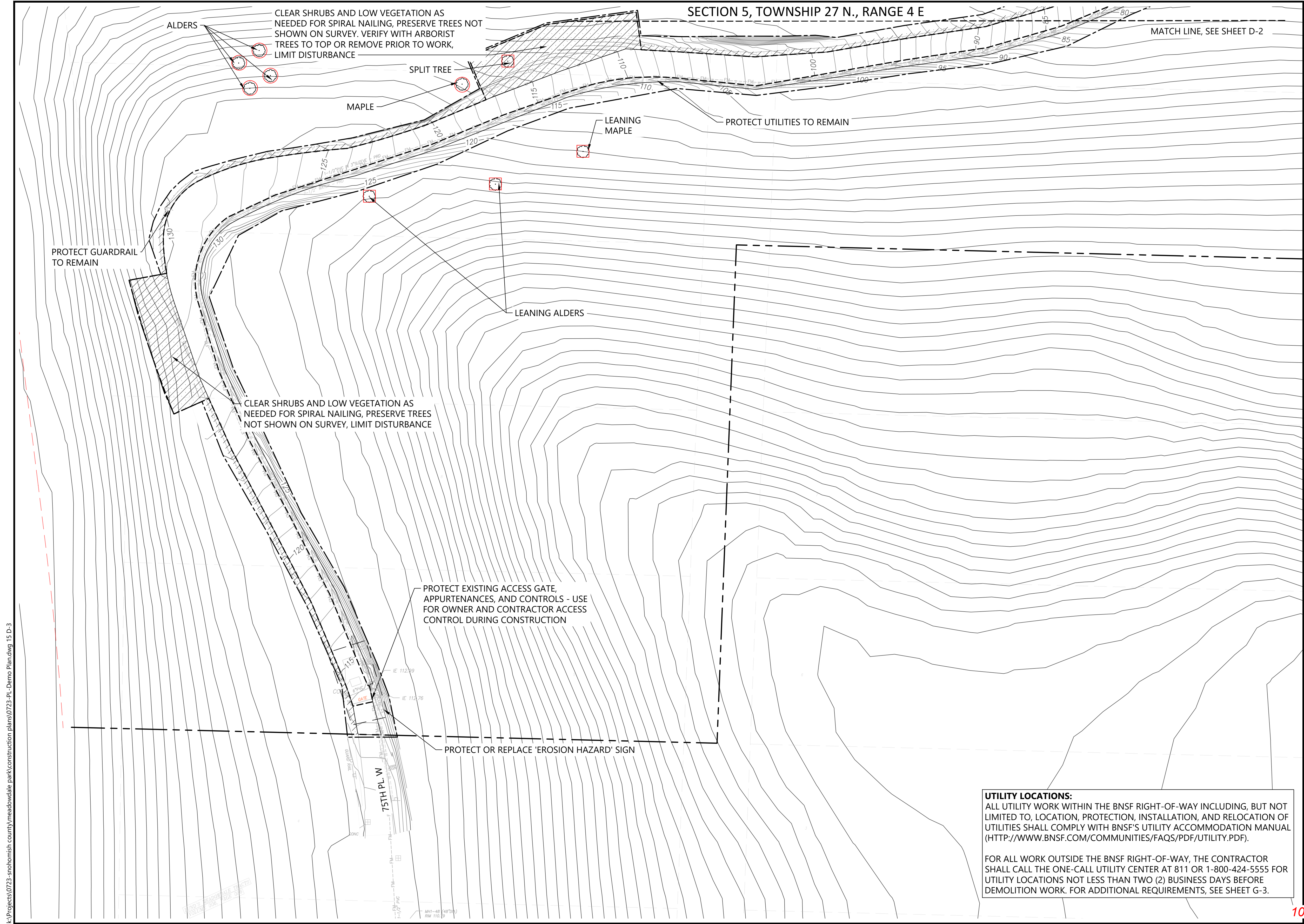
**MEADOWDALE BEACH PARK  
AND ESTUARY DESIGN**  
PFN 19-103913LDA

CLEARING AND DEMOLITION PLAN (2 OF 3)

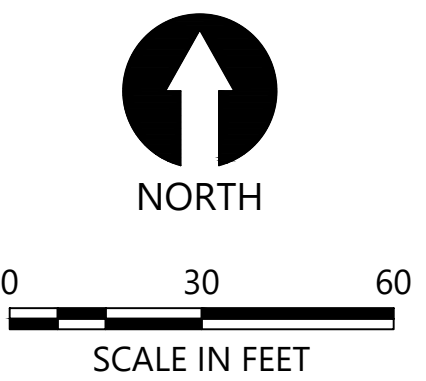
**D-2**

SHEET # 14 OF 81





- LEGEND:
- PARK BOUNDARY
  - PROJECT BOUNDARY
  - + + REMOVE ASPHALT PAVING
  - ▨ CLEAR AND GRUB VEGETATION
  - TEMPORARY CONSTRUCTION FENCING
  - CLEARING LIMITS
  - REMOVE FEATURE
  - ⊗ REMOVE/SALVAGE TREE WITH ROOTBALL
  - TOP AND GIRDLE TREE, LEAVING 20-30' SNAG
  - CUT TREE AND LEAVE STUMP



- NOTES:
1. SURVEY PROVIDED BY DHA, DATED JUNE 2017.
  2. HORIZONTAL DATUM: WASHINGTON STATE PLANE NORTH ZONE, NAD 83, U.S. FEET
  3. VERTICAL DATUM: NAVD 88
  4. ALL WORK WITHIN CRITICAL AREAS PER PROJECT PERMITS AND REQUIRES ENGINEER TO BE PRESENT.
  5. CONTRACTOR SHALL CONTACT BNSF TO ENSURE NO SIGNAL OR TELECOM CABLES ARE LOCATED IN EXCAVATION AREAS; THE BNSF SIGNAL AND TELECOM LOCATE REQUEST NUMBER IS 1-800-533-2891.
  6. CONTRACTOR SHALL PROVIDE CONTINUOUS UTILITY SERVICE AND DRIVEWAY ACCESS TO RANGER RESIDENCE.
  7. TREE SURVEY NOT CONDUCTED ON STEEP SLOPES; BUT HAZARD TREES IDENTIFIED AS SHOWN. SEE SHEETS L-1, L-2, AND L-3 FOR TREE REPLACEMENT PLANTINGS.

**UTILITY LOCATIONS:**  
ALL UTILITY WORK WITHIN THE BNSF RIGHT-OF-WAY INCLUDING, BUT NOT LIMITED TO, LOCATION, PROTECTION, INSTALLATION, AND RELOCATION OF UTILITIES SHALL COMPLY WITH BNSF'S UTILITY ACCOMMODATION MANUAL ([HTTP://WWW.BNSF.COM/COMMUNITIES/FAQS/PDF/UTILITY.PDF](http://www.bnsf.com/communities/faqs/pdf/utility.pdf)).

FOR ALL WORK OUTSIDE THE BNSF RIGHT-OF-WAY, THE CONTRACTOR SHALL CALL THE ONE-CALL UTILITY CENTER AT 811 OR 1-800-424-5555 FOR UTILITY LOCATIONS NOT LESS THAN TWO (2) BUSINESS DAYS BEFORE DEMOLITION WORK. FOR ADDITIONAL REQUIREMENTS, SEE SHEET G-3.

APPROVED FOR CONSTRUCTION  
R/W PERMIT NO. NA  
DATE 10/29/2020  
PFN: 19-103913LDA

100% CONSTRUCTION DRAWINGS/BID SET

720 Olive Way | Suite 1900 | Seattle, WA 98101

REVISIONS				
REV	DATE	BY	APP'D	DESCRIPTION

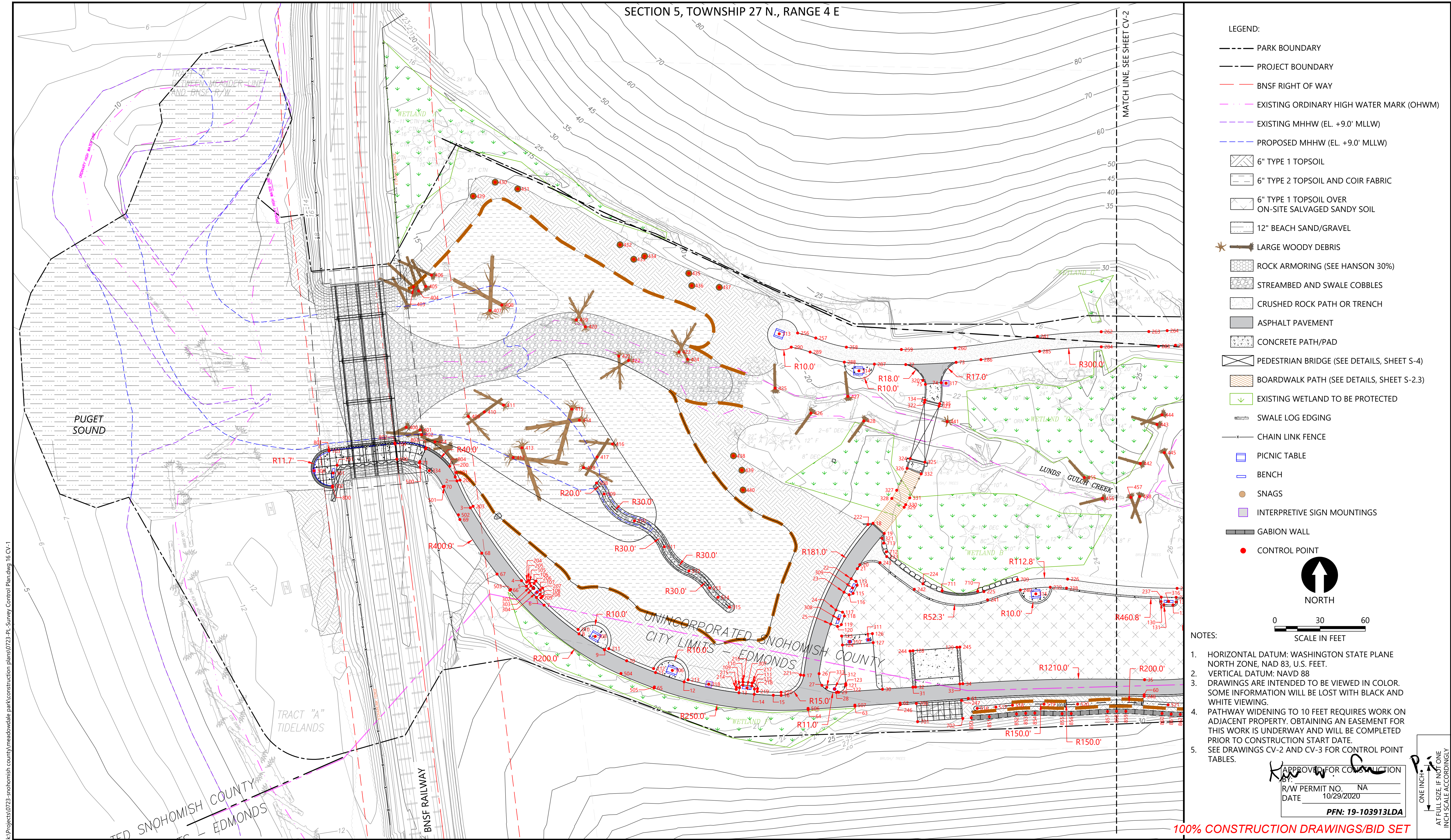
DESIGNED BY: PH  
DRAWN BY: CH/TG  
CHECKED BY: DR  
APPROVED BY: DR  
SCALE: 1" = 30'  
DATE: SEPTEMBER 2020

**MEADOWDALE BEACH PARK  
AND ESTUARY DESIGN**  
PFN 19-103913LDA

**CLEARING AND DEMOLITION PLAN (3 OF 3)**

**D-3**  
SHEET # 15 OF 81





720 Olive Way | Suite 1900 | Seattle, WA 98101

Snohomish County  
Parks and Recreation

STATE OF WASHINGTON  
PETER C. HUMMEL  
No. 0422 EXP. APRIL 14, 2021  
LICENSED LANDSCAPE ARCHITECT

REVISIONS				
REV	DATE	BY	APP'D	DESCRIPTION

DESIGNED BY: PH  
DRAWN BY: CH/TG  
CHECKED BY: DR  
APPROVED BY: PH  
SCALE: AS NOTED  
DATE: SEPTEMBER 2020

**MEADOWDALE BEACH PARK  
AND ESTUARY DESIGN**  
PFN 19-103913LDA

**LAYOUT CONTROL PLAN (1 OF 2)**

**CV-1**

SHEET # 16 OF 81

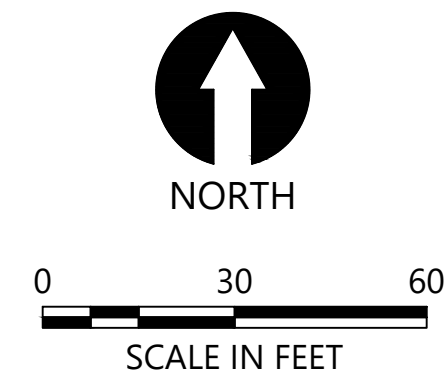


SECTION 5, TOWNSHIP 27 N., RANGE 4 E

CONTROL POINTS (ASPHALT)			CONTROL POINTS (ASPHALT)			CONTROL POINTS (ASPHALT)			CONTROL POINTS (ASPHALT)		
POINT #	NORTHING	EASTING	POINT #	NORTHING	EASTING	POINT #	NORTHING	EASTING	POINT #	NORTHING	EASTING
1	317239.09	1271905.75	20	317162.37	1272193.48	39	317119.65	1272511.27	58	317090.87	1272473.63
2	317217.87	1271926.64	21	317159.69	1272191.79	40	317150.62	1272557.92	59	317080.18	1272434.13
3	317200.04	1271935.53	22	317153.01	1272187.70	41	317158.57	1272567.85	60	317076.13	1272381.76
4	317151.79	1271969.34	23	317144.12	1272182.95	42	317159.56	1272568.91	61	317073.74	1272265.25
5	317148.06	1271972.63	24	317132.35	1272177.63	43	317173.59	1272583.87	62	317070.61	1272220.09
6	317140.69	1271979.19	25	317123.03	1272174.15	44	317166.96	1272590.92	63	317068.54	1272190.21
7	317135.58	1271984.29	26	317090.14	1272166.47	45	317160.99	1272585.75	64	317066.40	1272159.21
8	317116.52	1272007.45	27	317082.44	1272168.33	46	317158.67	1272584.63	65	317080.64	1272057.10
9	317106.00	1272024.32	28	317077.72	1272177.89	47	317144.13	1272591.55	66	317145.45	1271961.61
10	317098.70	1272038.98	29	317077.82	1272179.41	48	317129.47	1272626.47	67	317156.12	1271953.15
11	317090.90	1272058.15	30	317079.83	1272208.43	49	317123.17	1272652.75	68	317170.01	1271942.99
12	317084.75	1272077.05	31	317081.23	1272228.59	50	317115.43	1272650.73	69	317192.27	1271928.52
13	317077.51	1272113.36	32	317081.29	1272230.36	51	317121.69	1272624.61	70	317214.01	1271917.41
14	317076.51	1272123.46	33	317083.36	1272259.67	52	317139.68	1272583.72	71	317229.93	1271901.74
15	317075.87	1272136.13	34	317083.49	1272261.68	53	317140.43	1272579.86	72	317294.94	1272223.85
16	317075.80	1272141.32	35	317086.12	1272382.04	54	317137.52	1272566.37	73	317296.42	1272257.21
17	317089.05	1272156.25	36	317087.31	1272413.52	55	317139.07	1272566.04	74	317282.90	1272247.38
18	317189.75	1272202.19	37	317102.10	1272475.12	56	317140.92	1272561.43	75	317281.84	1272236.85
19	317183.05	1272209.60	38	317119.09	1272510.32	57	317118.74	1272528.52			

CONTROL POINTS (CONCRETE)			CONTROL POINTS (CONCRETE)		
POINT #	NORTHING	EASTING	POINT #	NORTHING	EASTING
100	317232.28	1271886.72	118	317128.33	1272183.21
101	317228.22	1271847.24	119	317122.68	1272181.19
102	317214.49	1271844.17	120	317121.46	1272178.67
103	317237.72	1271841.93	121	317082.47	1272184.03
104	317242.22	1271885.64	122	317082.48	1272184.21
105	317150.06	1271974.88	123	317083.47	1272184.12
106	317149.91	1271977.68	124	317109.14	1272181.90
107	317145.51	1271981.75	125	317115.12	1272181.38
108	317142.69	1271981.65	126	317116.68	1272201.76
109	317080.83	1272113.72	127	317110.70	1272202.28
110	317082.62	1272115.91	128	317105.31	1272228.65
111	317082.03	1272121.88	129	317107.63	1272257.73
112	317079.94	1272123.64	130	317137.94	1272392.93
113	317151.34	1272190.86	131	317135.84	1272394.88
114	317148.73	1272191.64	132	317135.68	1272400.87
115	317143.36	1272188.98	133	317137.65	1272402.93
116	317142.42	1272186.35	134	317271.46	1272236.64
117	317130.90	1272181.96	135	317269.08	1272246.36

- LEGEND:
- PARK BOUNDARY
  - PROJECT BOUNDARY
  - BNSF RIGHT OF WAY
  - EXISTING ORDINARY HIGH WATER MARK (OHWM)
  - EXISTING MHHW (EL. +9.0' MLLW)
  - PROPOSED MHHW (EL. +9.0' MLLW)
  - 6" TYPE 1 TOPSOIL
  - 6" TYPE 2 TOPSOIL AND COIR FABRIC
  - 6" TYPE 1 TOPSOIL OVER ON-SITE SALVAGED SANDY SOIL
  - 12" BEACH SAND/GRAVEL
  - LARGE WOODY DEBRIS
  - ROCK ARMORING (SEE HANSON 30%)
  - STREAMBED AND SWALE COBBLES
  - CRUSHED ROCK PATH OR TRENCH
  - ASPHALT PAVEMENT
  - CONCRETE PATH/PAD
  - PEDESTRIAN BRIDGE (SEE DETAILS, SHEET S-4)
  - BOARDWALK PATH (SEE DETAILS, SHEET S-2.3)
  - EXISTING WETLAND TO BE PROTECTED
  - SWALE LOG EDGING
  - CHAIN LINK FENCE
  - PICNIC TABLE
  - BENCH
  - SNAGS
  - INTERPRETIVE SIGN MOUNTINGS
  - GABION WALL
  - CONTROL POINT
  - REINFORCED TURF



NOTES:

- HORIZONTAL DATUM: WASHINGTON STATE PLANE NORTH ZONE, NAD 83, U.S. FEET.
- VERTICAL DATUM: NAVD 88
- DRAWINGS ARE INTENDED TO BE VIEWED IN COLOR. SOME INFORMATION WILL BE LOST WITH BLACK AND WHITE VIEWING.
- PATHWAY WIDENING TO 10 FEET REQUIRES WORK ON ADJACENT PROPERTY. OBTAINING AN EASEMENT FOR THIS WORK IS UNDERWAY AND WILL BE COMPLETED PRIOR TO CONSTRUCTION START DATE.
- CONTRACTOR SHALL PROVIDE CONTINUOUS UTILITY SERVICE AND DRIVEWAY ACCESS TO RANGER RESIDENCE.
- SEE DRAWING CV-3 FOR CONTROL POINT TABLES.

100% CONSTRUCTION DRAWINGS/BID SET



REVISIONS					DESCRIPTION
REV	DATE	BY	APP'D		

DESIGNED BY: PH  
DRAWN BY: CH/TG  
CHECKED BY: DR  
APPROVED BY: PH  
SCALE: AS NOTED  
DATE: SEPTEMBER 2020

MEADOWDALE BEACH PARK  
AND ESTUARY DESIGN  
PFN 19-103913LDA

LAYOUT CONTROL PLAN (2 OF 2)

CV-2

SHEET # 17 OF 81



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Sep 15, 2020 8:59am chiewett

SECTION 5, TOWNSHIP 27 N., RANGE 4 E

CONTROL POINTS (CRUSHED ROCK)			CONTROL POINTS (CRUSHED ROCK)			CONTROL POINTS (CRUSHED ROCK)			CONTROL POINTS (CRUSHED ROCK)		
POINT #	NORTHING	EASTING	POINT #	NORTHING	EASTING	POINT #	NORTHING	EASTING	POINT #	NORTHING	EASTING
200	317220.45	1271925.45	223	317167.73	1272211.25	246	317069.61	1272220.16	269	317298.09	1272505.54
201	317223.45	1271926.10	224	317149.70	1272235.23	247	317072.44	1272260.81	270	317296.27	1272520.62
202	317218.36	1271928.60	225	317144.54	1272275.61	248	317075.13	1272381.77	271	317264.27	1272598.93
203	317201.05	1271937.25	226	317152.80	1272331.07	249	317080.98	1272443.12	272	317245.57	1272615.66
204	317150.81	1271972.76	227	317146.69	1272403.56	250	317074.15	1272468.30	273	317244.06	1272618.09
205	317151.90	1271974.03	228	317144.00	1272438.55	251	317072.32	1272473.89	274	317236.86	1272610.03
206	317151.47	1271978.95	229	317141.79	1272449.01	252	317081.19	1272474.81	275	317257.60	1272591.47
207	317146.84	1271983.24	230	317152.37	1272536.51	253	317081.18	1272637.26	276	317283.68	1272541.45
208	317141.34	1271983.14	231	317157.74	1272564.08	254	317080.05	1272642.10	277	317288.21	1272503.92
209	317140.47	1271982.20	232	317152.48	1272556.43	255	317064.25	1272637.18	278	317291.23	1272489.39
210	317119.41	1272006.81	233	317147.30	1272539.71	256	317315.87	1272152.23	279	317299.72	1272456.54
211	317106.73	1272027.15	234	317132.09	1272496.01	257	317312.55	1272164.22	280	317302.39	1272443.81
212	317093.53	1272056.84	235	317136.04	1272447.25	258	317306.48	1272184.52	281	317307.48	1272410.46
213	317086.10	1272079.64	236	317140.70	1272402.97	259	317304.92	1272220.96	282	317307.77	1272402.50
214	317079.74	1272111.60	237	317140.85	1272393.08	260	317305.85	1272256.51	283	317307.03	1272391.27
215	317081.04	1272111.73	238	317146.85	1272330.30	261	317313.61	1272311.11	284	317306.69	1272353.38
216	317084.61	1272116.11	239	317147.41	1272319.57	262	317316.69	1272353.33	285	317303.71	1272312.51
217	317084.02	1272122.08	240	317145.55	1272299.74	263	317316.83	1272384.84	286	317298.19	1272273.67
218	317080.22	1272125.66	241	317139.06	1272278.04	264	317317.43	1272397.00	287	317295.23	1272203.07
219	317078.37	1272125.56	242	317146.02	1272229.50	265	317317.38	1272411.87	288	317296.57	1272183.16
220	317077.80	1272141.28	243	317163.71	1272206.81	266	317312.23	1272445.59	289	317303.26	1272160.51
221	317089.28	1272154.27	244	317105.13	1272226.66	267	317309.46	1272458.82	290	317306.49	1272148.01
222	317188.99	1272198.81	245	317107.79	1272259.72	268	317300.97	1272491.66			

CONTROL POINTS (SITE FURNISHINGS)				CONTROL POINTS (SITE FURNISHINGS)			
POINT #	NORTHING	EASTING	DESCRIPTION	POINT #	NORTHING	EASTING	DESCRIPTION
300	317224.6	1271831.9	SIGN	318	317083.2	1272093.3	SIGN
301	317223.1	1271844.6	BENCH	319	317118.8	1272503.4	SIGN
302	317148.2	1271975.6	FOOTWASH	320	317284.4	1272235.2	SIGN
303	317146.8	1271977.3	BOULDER	321	317179.8	1272208.2	SIGN
304	317144.1	1271979.5	BENCH	322	317269.8	1272236.2	BRIDGE
305	317114.9	1272018.2	PICNIC TABLE	323	317267.4	1272245.9	BRIDGE
306	317092.3	1272069.2	ADA PICNIC TABLE	324	317232.7	1272226.8	BRIDGE
307	317080.7	1272118.7	BENCH	325	317230.3	1272236.5	BRIDGE
308	317126.3	1272179.4	BENCH	326	317226.2	1272224.8	BOARDWALK
309	317146.9	1272188.6	BENCH	327	317211.7	1272217.9	BOARDWALK
310	317111.4	1272186.7	GRILL	328	317206.2	1272214.6	BOARDWALK
311	317112.5	1272199.0	GRILL	329	317200.4	1272222.8	BOARDWALK
312	317080.0	1272176.7	DRINKING FOUNTAIN	330	317202.1	1272223.8	BOARDWALK
313	317315.3	1272140.1	PICNIC TABLE	331	317206.6	1272226.5	BOARDWALK
314	317290.8	1272192.9	ADA PICNIC TABLE	332	317222.5	1272234.1	BOARDWALK
315	317143.0	1272310.0	PICNIC TABLE	333	317081.1	1272171.5	JUG FILLER
316	317138.0	1272397.9	BENCH	334	317224.7	1271908.2	LIGHT
317	317282.6	1272250.5	SIGN				

CONTROL POINTS (SWALE AND DITCH CENTERLINES)		
POINT #	NORTHING	EASTING
500	317230.61	1271902.05
501	317214.30	1271918.10
502	317195.37	1271927.54
503	317145.92	1271962.19
504	317090.25	1272035.22
505	317081.35	1272057.35
506	317067.15	1272159.16
507	317069.29	1272190.16
508	317216.46	1272019.03
509	317209.18	1272024.08
510	317191.41	1272044.15
511	317174.23	1272063.97
512	317158.23	1272080.24
513	317147.00	1272093.95
514	317140.75	1272099.46
515	317134.25	1272107.06
516	317067.16	1272271.20
517	317068.05	1272283.53
518	317069.22	1272294.54
519	317069.97	1272315.42
520	317069.93	1272337.67
521	317069.52	1272397.61
522	317071.49	1272434.06
523	317070.59	1272455.63

CONTROL POINTS (LARGE WOODY MATERIAL)			CONTROL POINTS (LARGE WOODY MATERIAL)			CONTROL POINTS (LARGE WOODY MATERIAL)			CONTROL POINTS (LARGE WOODY MATERIAL)		
POINT #	NORTHING	EASTING	POINT #	NORTHING	EASTING	POINT #	NORTHING	EASTING	POINT #	NORTHING	EASTING
400	317253.38	1271892.96	415	317265.48	1272002.66	430	317415.76	1271951.87	445	317236.59	1272395.08
401	317251.66	1271902.16	416	317242.28	1272029.62	431	317411.33	1271966.82	446	317253.38	1272437.77
402	317248.50	1271903.16	417	317233.67	1272019.40	432	317374.35	1272034.61	447	317252.24	1272450.96
403	317346.43	1271897.84	418	317226.64	1272010.52	433	317364.69	1272043.67	448	317256.20	1272479.83
404	317343.78	1271901.17	419	317324.63	1272005.59	434	317366.77	1272050.85	449	317238.32	1272497.27
405	317346.73	1271905.91	420	317320.00	1272011.61	435	317355.37	1272080.10	450	317246.32	1272521.85
406	317354.21	1271909.76	421	317300.54	1272033.76	436	317347.24	1272082.11	451	317227.35	1272531.40
407	317330.75	1271948.48	422	317297.64	1272040.22	437	317346.11	1272100.30	452	317229.44	1272555.62
408	317334.41	1271956.33	423	317303.30	1272073.68	438	317234.49	1272109.72	453	317191.53	1272576.23
409	317260.58	1271934.17	424	317298.41	1272079.33	439	317224.93	1272115.31	454	317243.77	1271912.00
410	317263.50	1271944.72	425	317279.31	1272137.29	440	317211.85	1272116.04	455	317220.11	1272342.09
411	317268.11	1271957.40	426	317262.72	1272161.04	441	317257.19	1272251.28	456	317206.32	1272354.18
412	317233.31	1271963.83	427	317273.87	1272185.45	442	317229.43	1272379.24	457	317206.95	1272372.97
413	317239.80	1271969.65	428	317257.60	1272196.06	443	317255.27	1272390.23	458	317207.52	1272378.81
414	317258.06	1272007.71	429	317406.50	1271937.34	444	317261.60	1272393.59			

CONTROL POINTS (FENCES)		
POINT #	NORTHING	EASTING
600	317084.34	1272473.33
601	317089.90	1272473.89
602	317140.09	1272561.99
603	317138.37	1272564.84
604	317141.32	1272579.64
605	317114.46	1272650.49
606	317105.52	1272657.20
607	317082.49	1272656.61
608	317166.30	1272591.68
609	317160.31	1272586.48
610	317158.55	1272585.62
611	317141.30	1272598.37
612	317124.13	1272653.01

CONTROL POINTS (ROCK WALLS)		
POINT #	NORTHING	EASTING
700	317070.36	1272230.88
701	317058.39	1272231.71
702	317060.47	1272261.64
703	317302.88	1272517.68
704	317279.51	1272581.21
705	317282.55	1272588.52
706	317164.88	1272557.20
707	317168.20	1272558.60
708	317172.03	1272574.30
709	317152.52	1272297.82
710	317144.72	1272271.52
711	317145.04	1272247.95
712	317170.90	1272210.98
713	317176.64	1272209.27


CONTROL POINTS (SHEETPILE WALLS)		
POINT #	NORTHING	EASTING
800	317213.74	1271844.24
801	317238.48	1271841.83
802	317242.97	1271885.39
803	317239.77	1271906.07
804	317227.56	1271921.82

CONTROL POINTS (GABION WALLS)			CONTROL POINTS (GABION WALLS)		
POINT #	NORTHING	EASTING	POINT #	NORTHING	EASTING
850	317060.91	1272267.25	860	317063.77	1272393.61
851	317061.62	1272279.23	861	317063.38	1272399.65
852	317063.45	1272297.21	862	317063.18	1272405.68
853	317063.88	1272303.29	863	317063.22	1272411.74
854	317064.05	1272309.35	864	317063.49	1272417.84
855	317063.63	1272327.40	865	317065.70	1272435.92
856	317063.72	1272333.46	866	317066.24	1272442.10
857	317065.12	1272357.50	867	317065.91	1272448.30
858	317065.26	1272363.49	868	317064.74	1272454.45
859	317065.21	1272369.65	869	317064.52	1272466.45

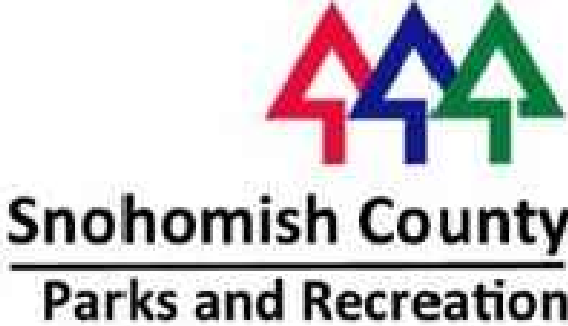
- NOTES:
- HORIZONTAL DATUM: WASHINGTON STATE PLANE NORTH ZONE, NAD 83, U.S. FEET.
  - VERTICAL DATUM: NAVD 88
  - DRAWINGS ARE INTENDED TO BE VIEWED IN COLOR. SOME INFORMATION WILL BE LOST WITH BLACK AND WHITE VIEWING.


APPROVED FOR CONSTRUCTION  
R/W PERMIT NO. NA  
DATE 10/29/2020  
PFN: 19-103913LDA

100% CONSTRUCTION DRAWINGS/BID SET



720 Olive Way | Suite 1900 | Seattle, WA 98101





REVISIONS				
REV	DATE	BY	APP'D	DESCRIPTION



SECTION 5, TOWNSHIP 27 N., RANGE 4 E

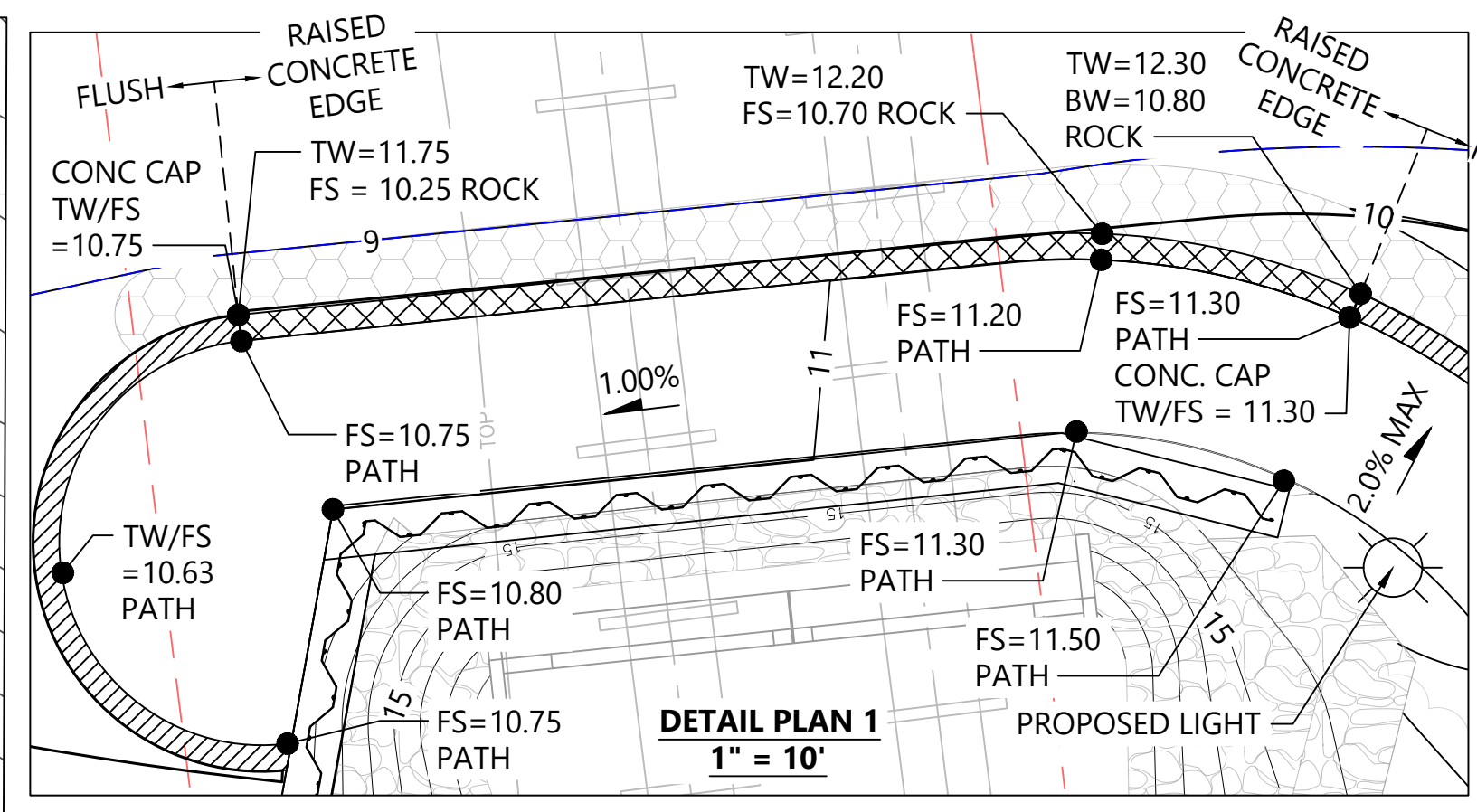
**UTILITY LOCATIONS:**  
ALL UTILITY WORK WITHIN THE BNSF RIGHT-OF-WAY INCLUDING, BUT NOT LIMITED TO, LOCATION, PROTECTION, INSTALLATION, AND RELOCATION OF UTILITIES SHALL COMPLY WITH BNSF'S UTILITY ACCOMMODATION MANUAL (HTTP://WWW.BNSF.COM/COMMUNITIES/FAQS/PDF/UTILITY.PDF).

FOR ALL WORK OUTSIDE THE BNSF RIGHT-OF-WAY, THE CONTRACTOR SHALL CALL THE ONE-CALL UTILITY CENTER AT 811 OR 1-800-424-5555 FOR UTILITY LOCATIONS NOT LESS THAN TWO (2) BUSINESS DAYS BEFORE DEMOLITION WORK. FOR ADDITIONAL REQUIREMENTS, SEE SHEET G-3.

**WORK WITHIN BNSF RIGHT-OF-WAY:**  
FOR ALL WORK WITHIN BNSF RIGHT-OF-WAY, SEE PROJECT SPECIFICATIONS FOR REQUIREMENTS OF WORK WITHIN BNSF RIGHT-OF-WAY AND MEADOWDALE BEACH RAILROAD BRIDGE CIVIL AND STRUCTURAL DRAWINGS BY HANSON PROFESSIONAL SERVICES, INC.

DETAIL PLAN 1 NOTES:

1. SEE SHEET CM-1 FOR PATH SHEET PILE WALL AND CONC CAP DETAIL CALLOUT.
2. SEE HANSON CIVIL AND STRUCTURAL DRAWINGS FOR RAILROAD BRIDGE AND ABUTMENT STRUCTURES.



LEGEND:

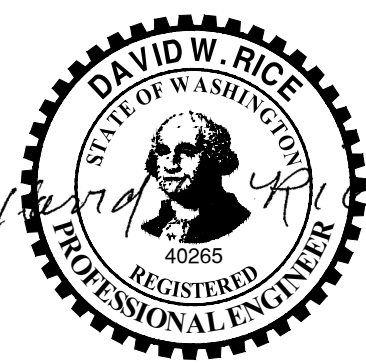
- PARK BOUNDARY
- PROJECT BOUNDARY
- EXISTING CONTOUR
- EXISTING POWER LINE
- EXISTING TELEPHONE LINE
- EXISTING OHWM
- EXISTING MHHW (EL. +9' MLLW)
- PROPOSED MHHW (EL. +9' MLLW)
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- STORMWATER PIPE (SEE CU SHEETS)
- CATCH BASIN (SEE CU SHEETS FOR TYPE, RIM AND INVERT ELEVATIONS)
- ★ TREE TO REMAIN
- EXISTING WETLAND TO BE PROTECTED
- APPROXIMATE EXTENT OF BURIED DEBRIS LIKELY TO BE ENCOUNTERED DURING EXCAVATION (SEE NOTE 8)
- CONFIRMED LOCATIONS OF BURIED DEBRIS
- 1.5% SLOPE DESIGNATION (PATH CROSS SLOPE 1.5% MIN., 2% MAX.)
- GABION WALL
- LIQUEFACTION MITIGATION EXCAVATION AREA

NOTES:

1. SURVEY PROVIDED BY DHA, DATED JUNE 2017
2. HORIZONTAL DATUM: WASHINGTON STATE PLANE NORTH ZONE, NAD 83, U.S. FEET.
3. VERTICAL DATUM: NAVD 88
4. FOR DRAINAGE STRUCTURE ELEVATIONS, SEE SHEET CU-1.
5. FOR MATERIALS PLAN, SEE SHEET CM-1.
6. CONTRACTOR SHALL CONTACT BNSF TO ENSURE NO SIGNAL OR TELECOM CABLES ARE LOCATED IN EXCAVATION AREAS; THE BNSF SIGNAL AND TELECOM LOCATE REQUEST NUMBER IS 1-800-533-2891.
7. EXISTING BEACH TOPOGRAPHY REPRESENTS JUNE 2016 CONDITIONS AND ARE SUBJECT TO CHANGE. CONTRACTOR IS RESPONSIBLE FOR VERIFYING GRADES AND BEACH CONDITIONS PRIOR TO GRADING.
8. EXTENSIVE BURIED DEBRIS HAS BEEN CONFIRMED SOUTH OF LUNDS GULCH CREEK IN AREA TO BE EXCAVATED IN AGREEMENT WITH GEOTECHNICAL REPORT. SEE EARTHWORK SPECIFICATIONS AND IN AGREEMENT WITH THE PROJECT GEOTECHNICAL REPORT.
9. PATHWAY WIDENING TO 10 FEET REQUIRES WORK ON ADJACENT PROPERTY. OBTAINING AN EASEMENT FOR THIS WORK IS UNDERWAY AND WILL BE COMPLETED PRIOR TO CONSTRUCTION START DATE.
10. SEE MEADOWDALE BEACH PARK RAILROAD BRIDGE CIVIL AND STRUCTURAL DRAWINGS BY HANSON PROFESSIONAL SERVICES, INC FOR GRADING OF TEMPORARY EMBANKMENT AND GRADING FOR BRIDGE CONSTRUCTION.
11. TREE SURVEY NOT CONDUCTED ON STEEP SLOPES; BUT HAZARD TREES IDENTIFIED AS SHOWN ON SHEETS D-1, D-2, AND D-3. SEE SHEETS L-1, L-2, AND L-3 FOR TREE REPLACEMENT PLANTINGS.
12. FOR COMPACTION REQUIREMENTS, SEE NOTES ON C-3.

APPROVED FOR CONSTRUCTION  
BY: *[Signature]*  
R/W PERMIT NO. NA  
DATE 10/29/2020  
PFN: 19-103913LDA

100% CONSTRUCTION DRAWINGS/BID SET



REVISIONS					DESCRIPTION
REV	DATE	BY	APP'D		

DESIGNED BY: DR  
DRAWN BY: CH/TG  
CHECKED BY: DR  
APPROVED BY: DR  
SCALE: 1" = 30'  
DATE: SEPTEMBER 2020

MEADOWDALE BEACH PARK  
AND ESTUARY DESIGN  
PFN 19-103913LDA

GRADING PLAN (1 OF 3)

C-1

SHEET # 19 OF 81



SECTION 5, TOWNSHIP 27 N., RANGE 4 E

**UTILITY LOCATIONS:**  
ALL UTILITY WORK WITHIN THE BNSF RIGHT-OF-WAY INCLUDING, BUT NOT LIMITED TO, LOCATION, PROTECTION, INSTALLATION, AND RELOCATION OF UTILITIES SHALL COMPLY WITH BNSF'S UTILITY ACCOMMODATION MANUAL ([HTTP://WWW.BNSF.COM/COMMUNITIES/FAQS/PDF/UTILITY.PDF](http://www.bnsf.com/communities/faqs/pdf/utility.pdf)).

FOR ALL WORK OUTSIDE THE BNSF RIGHT-OF-WAY, THE CONTRACTOR SHALL CALL THE ONE-CALL UTILITY CENTER AT 811 OR 1-800-424-5555 FOR UTILITY LOCATIONS NOT LESS THAN TWO (2) BUSINESS DAYS BEFORE DEMOLITION WORK. FOR ADDITIONAL REQUIREMENTS, SEE SHEET G-3.

LEGEND:

- PARK BOUNDARY
- PROJECT BOUNDARY
- EXISTING CONTOUR
- EXISTING OHWM
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- STORMWATER PIPE (SEE CU SHEETS)
- CATCH BASIN (SEE CU SHEETS FOR TYPE, RIM AND INVERT ELEVATIONS)
- ★ TREE TO REMAIN
- EXISTING WETLAND TO BE PROTECTED
- 1.5% SLOPE DESIGNATION (PATH CROSS SLOPE 1.5% MIN., 2% MAX.)
- ▨ GABION WALL



0 30 60  
SCALE IN FEET

NOTES:

1. SURVEY PROVIDED BY DHA, DATED JUNE 2017
2. HORIZONTAL DATUM: WASHINGTON STATE PLANE NORTH ZONE, NAD 83, U.S. FEET.
3. VERTICAL DATUM: NAVD 88
4. FOR DRAINAGE STRUCTURE ELEVATIONS, SEE SHEET CU-2.
5. FOR MATERIALS PLAN, SEE SHEET CM-2.
6. CONTRACTOR SHALL CONTACT BNSF TO ENSURE NO SIGNAL OR TELECOM CABLES ARE LOCATED IN EXCAVATION AREAS; THE BNSF SIGNAL AND TELECOM LOCATE REQUEST NUMBER IS 1-800-533-2891.
7. PATHWAY WIDENING TO 10 FEET REQUIRES WORK ON ADJACENT PROPERTY. OBTAINING AN EASEMENT FOR THIS WORK IS UNDERWAY AND WILL BE COMPLETED PRIOR TO CONSTRUCTION START DATE.
8. CONTRACTOR SHALL PROVIDE CONTINUOUS UTILITY SERVICE AND DRIVEWAY ACCESS TO RANGER RESIDENCE.
9. SEE HANSON PLANS FOR GRADING OF TEMPORARY EMBANKMENT FOR LAYDOWN PADS AND BRIDGE ACCESS PADS FOR BRIDGE CONSTRUCTION.
10. TREE SURVEY NOT CONDUCTED ON STEEP SLOPES; BUT HAZARD TREES IDENTIFIED AS SHOWN ON SHEETS D-1, D-2, AND D-3. SEE SHEETS L-1, L-2, AND L-3 FOR TREE REPLACEMENT PLANTINGS.
11. FOR COMPACTION REQUIREMENTS, SEE NOTES ON C-3.

APPROVED FOR CONSTRUCTION  
R/W PERMIT NO. NA  
DATE 10/29/2020  
PFN: 19-103913LDA

100% CONSTRUCTION DRAWINGS/BID SET



REVISIONS					DESCRIPTION
REV	DATE	BY	APP'D		

DESIGNED BY: DR  
DRAWN BY: CH/TG  
CHECKED BY: DR  
APPROVED BY: DR  
SCALE: 1" = 30'  
DATE: SEPTEMBER 2020

MEADOWDALE BEACH PARK  
AND ESTUARY DESIGN  
PFN 19-103913LDA

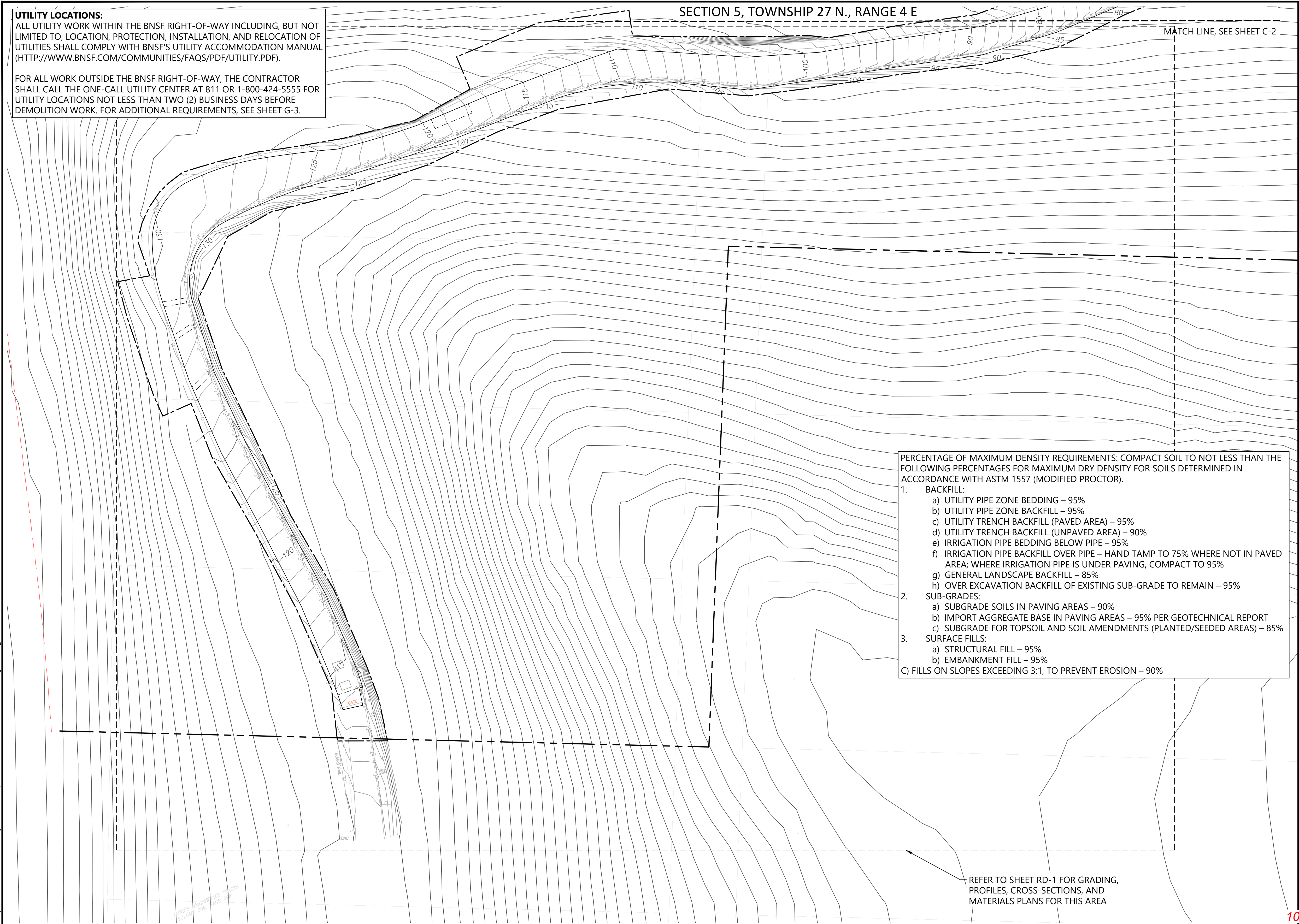
GRADING PLAN (2 OF 3)

C-2

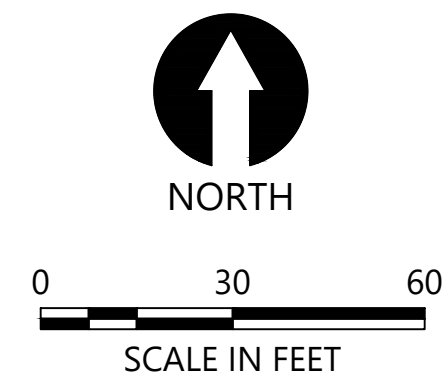
SHEET # 20 OF 81



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Sep 15, 2020 9:00am chiewett



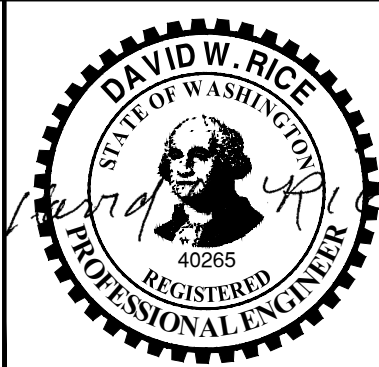
- LEGEND:
- PARK BOUNDARY
  - PROJECT BOUNDARY
  - EXISTING CONTOUR
  - 10— PROPOSED MAJOR CONTOUR
  - 11— PROPOSED MINOR CONTOUR
  - STORMWATER PIPE (SEE CU SHEETS)
  - CATCH BASIN (SEE CU SHEETS FOR TYPE, RIM AND INVERT ELEVATIONS)
  - ★ TREE TO REMAIN



- NOTES:
- SURVEY PROVIDED BY DHA, DATED JUNE 2017
  - HORIZONTAL DATUM: WASHINGTON STATE PLANE NORTH ZONE, NAD 83, U.S. FEET.
  - VERTICAL DATUM: NAVD 88
  - CONTRACTOR SHALL CONTACT BNSF TO ENSURE NO SIGNAL OR TELECOM CABLES ARE LOCATED IN EXCAVATION AREAS; THE BNSF SIGNAL AND TELECOM LOCATE REQUEST NUMBER IS 1-800-533-2891.
  - CONTRACTOR SHALL PROVIDE CONTINUOUS UTILITY SERVICE AND DRIVEWAY ACCESS TO RANGER RESIDENCE.
  - ENTIRE SHEET IS WITHIN CITY OF EDMONDS.
  - TREE SURVEY NOT CONDUCTED ON STEEP SLOPES; BUT HAZARD TREES IDENTIFIED AS SHOWN ON SHEETS D-1, D-2, AND D-3. SEE SHEETS L-1, L-2, AND L-3 FOR TREE REPLACEMENT PLANTINGS.

APPROVED FOR CONSTRUCTION  
R/W PERMIT NO. NA  
DATE 10/29/2020  
PFN: 19-103913LDA

100% CONSTRUCTION DRAWINGS/BID SET



REVISIONS					DESCRIPTION
REV	DATE	BY	APP'D		

DESIGNED BY: DR  
DRAWN BY: CH/TG  
CHECKED BY: DR  
APPROVED BY: DR  
SCALE: 1" = 30'  
DATE: SEPTEMBER 2020

MEADOWDALE BEACH PARK  
AND ESTUARY DESIGN  
PFN 19-103913LDA

GRADING PLAN (3 OF 3)

C-3

SHEET # 21 OF 81



SECTION 5, TOWNSHIP 27 N., RANGE 4 E

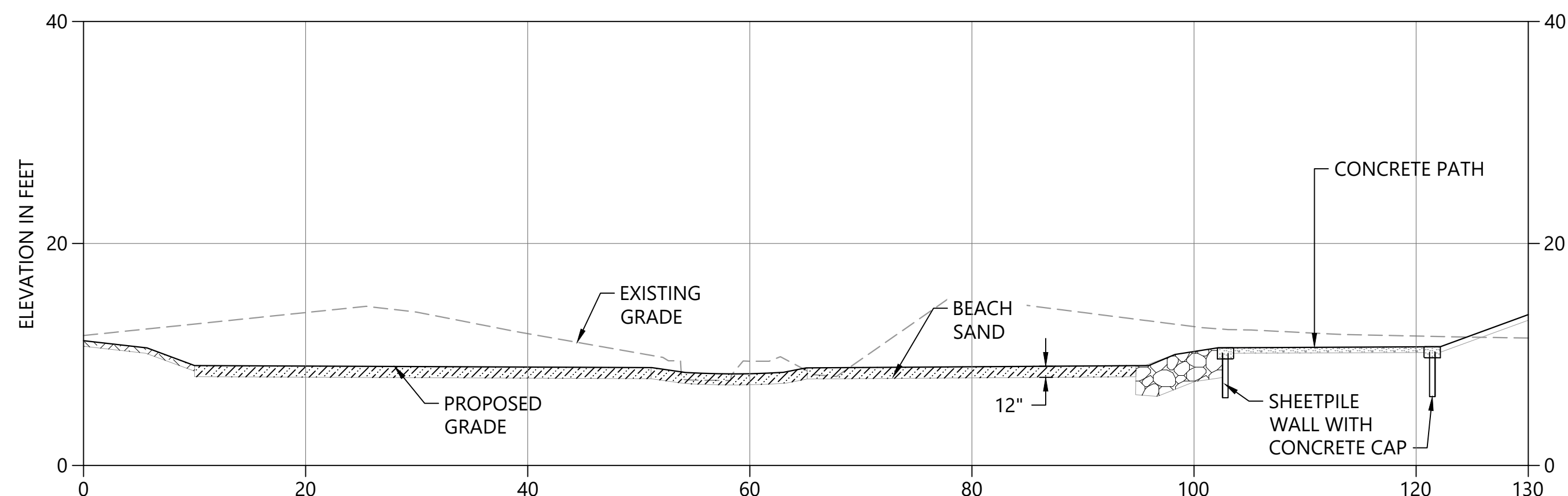
UTILITY LOCATIONS:

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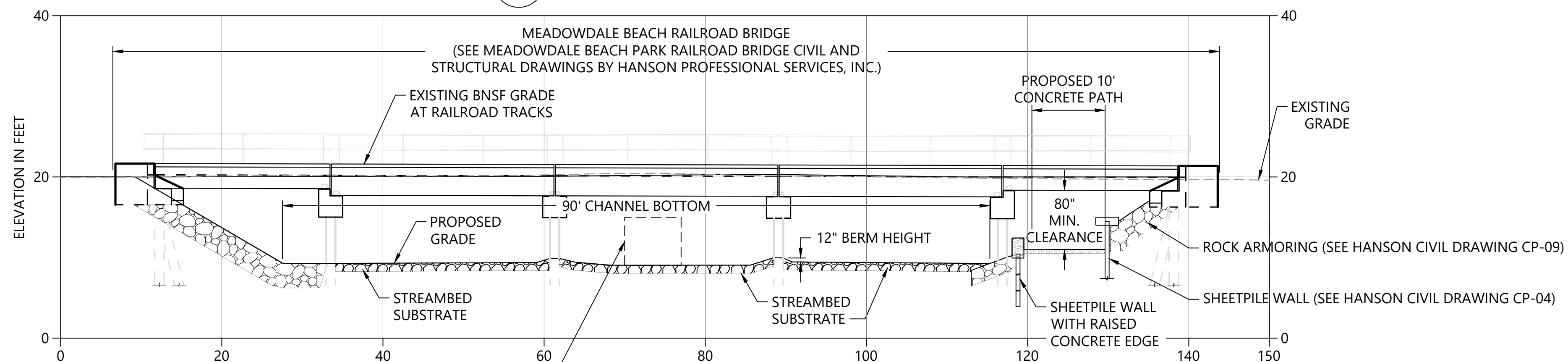
FOR ALL WORK OUTSIDE THE BNSF RIGHT-OF-WAY, THE CONTRACTOR SHALL CALL THE ONE-CALL UTILITY CENTER AT 811 OR 1-800-424-5555 FOR UTILITY LOCATIONS NOT LESS THAN TWO (2) BUSINESS DAYS BEFORE DEMOLITION WORK. FOR ADDITIONAL REQUIREMENTS, SEE SHEET G-3.

WORK WITHIN BNSF RIGHT-OF-WAY:

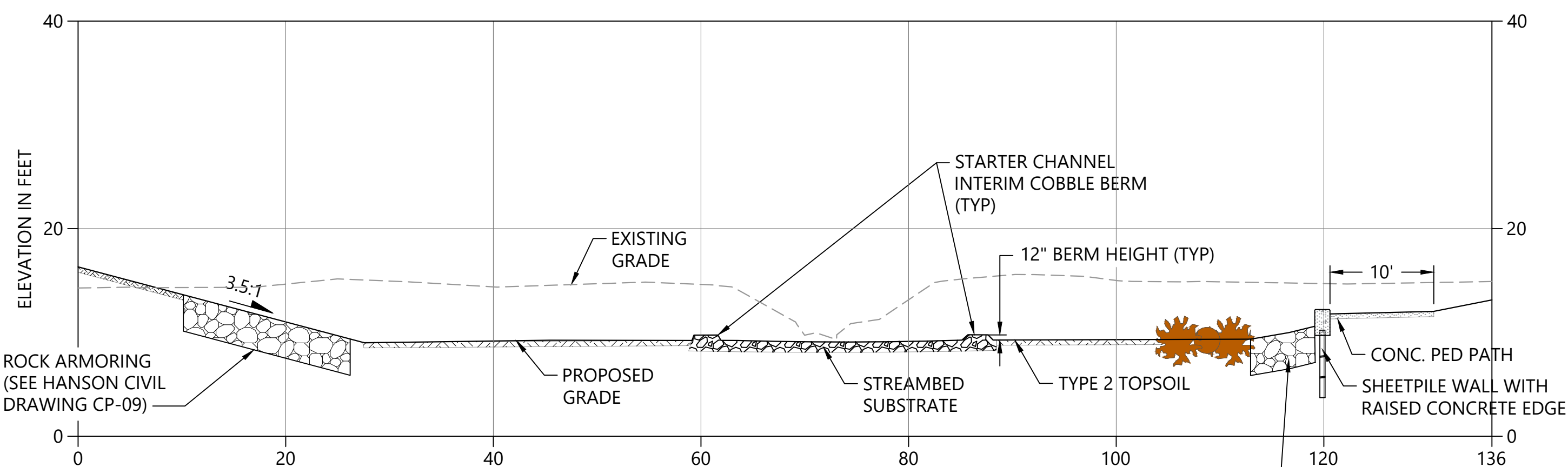
FOR ALL WORK WITHIN BNSF RIGHT-OF-WAY, SEE PROJECT SPECIFICATIONS FOR REQUIREMENTS OF WORK WITHIN BNSF RIGHT-OF-WAY AND MEADOWDALE BEACH RAILROAD BRIDGE CIVIL AND STRUCTURAL DRAWINGS BY HANSON PROFESSIONAL SERVICES, INC.



SECTION A  
C-1  
SCALE: 1" = 10'



SECTION B  
C-1  
SCALE: 1" = 10'



SECTION C  
C-1  
SCALE: 1" = 10'

0 10 20  
SCALE IN FEET

APPROVED FOR CONSTRUCTION  
R/W PERMIT NO. NA  
DATE 10/29/2020  
PFN: 19-103913LDA

100% CONSTRUCTION DRAWINGS/BID SET

REVISIONS					DESCRIPTION
REV	DATE	BY	APP'D		

DESIGNED BY: DR  
DRAWN BY: CH/TG  
CHECKED BY: DR  
APPROVED BY: DR  
SCALE: 1" = 10'  
DATE: SEPTEMBER 2020

MEADOWDALE BEACH PARK  
AND ESTUARY DESIGN  
PFN 19-103913LDA

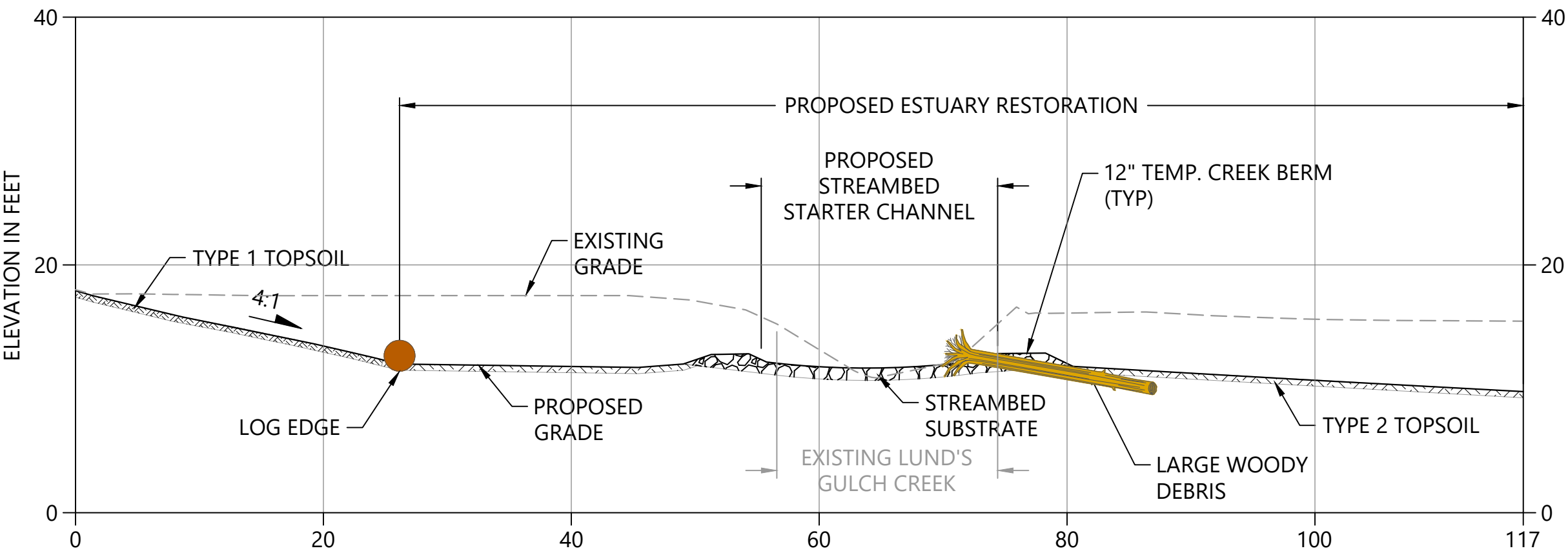
GRADING CROSS-SECTIONS (1 OF 4)

C-4

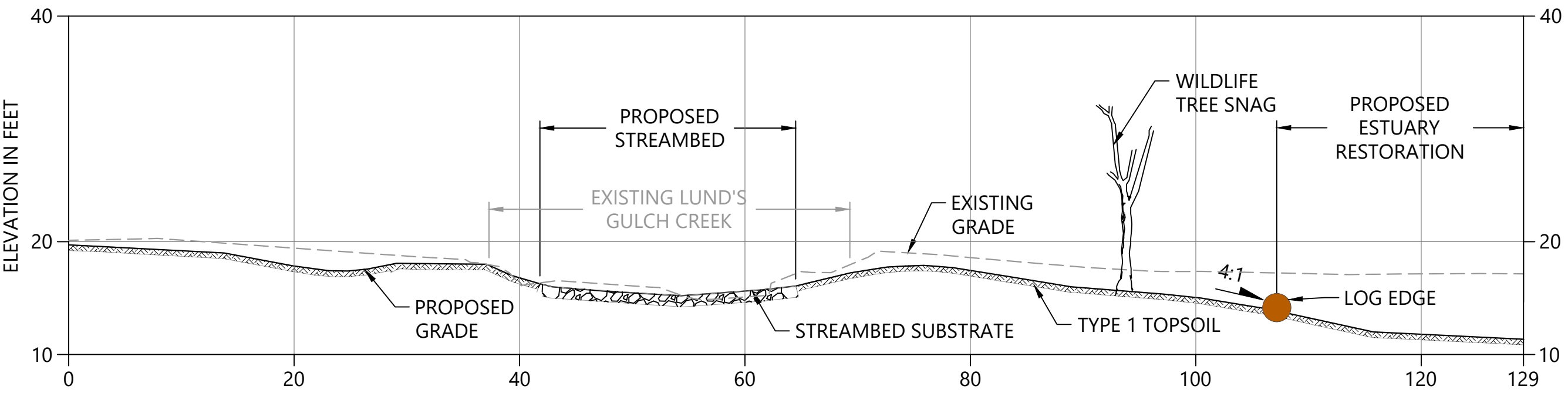
SHEET # 22 OF 81



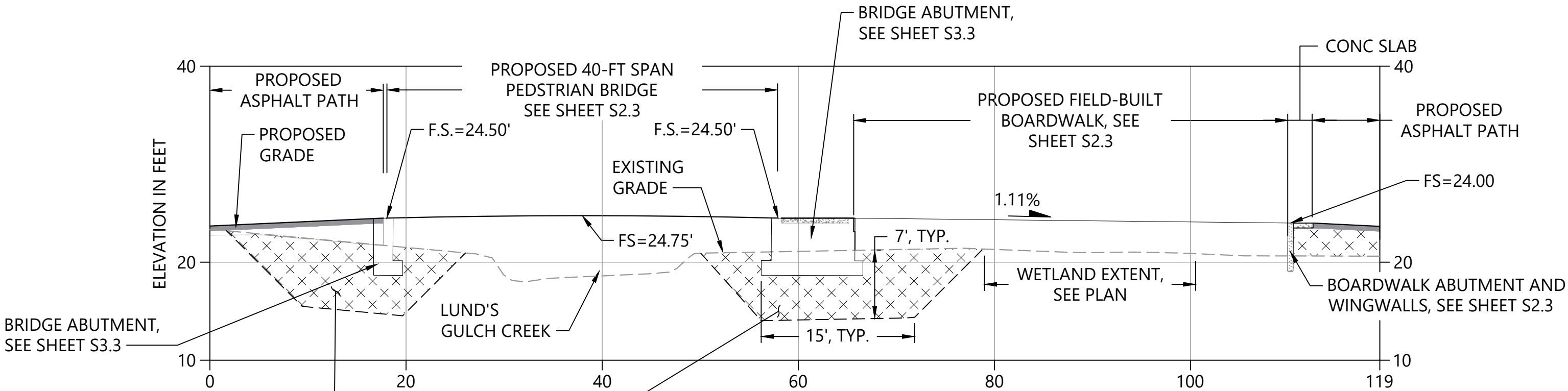
SECTION 5, TOWNSHIP 27 N., RANGE 4 E



D SECTION  
C-1 SCALE: 1" = 10'



E SECTION  
C-1 SCALE: 1" = 10'



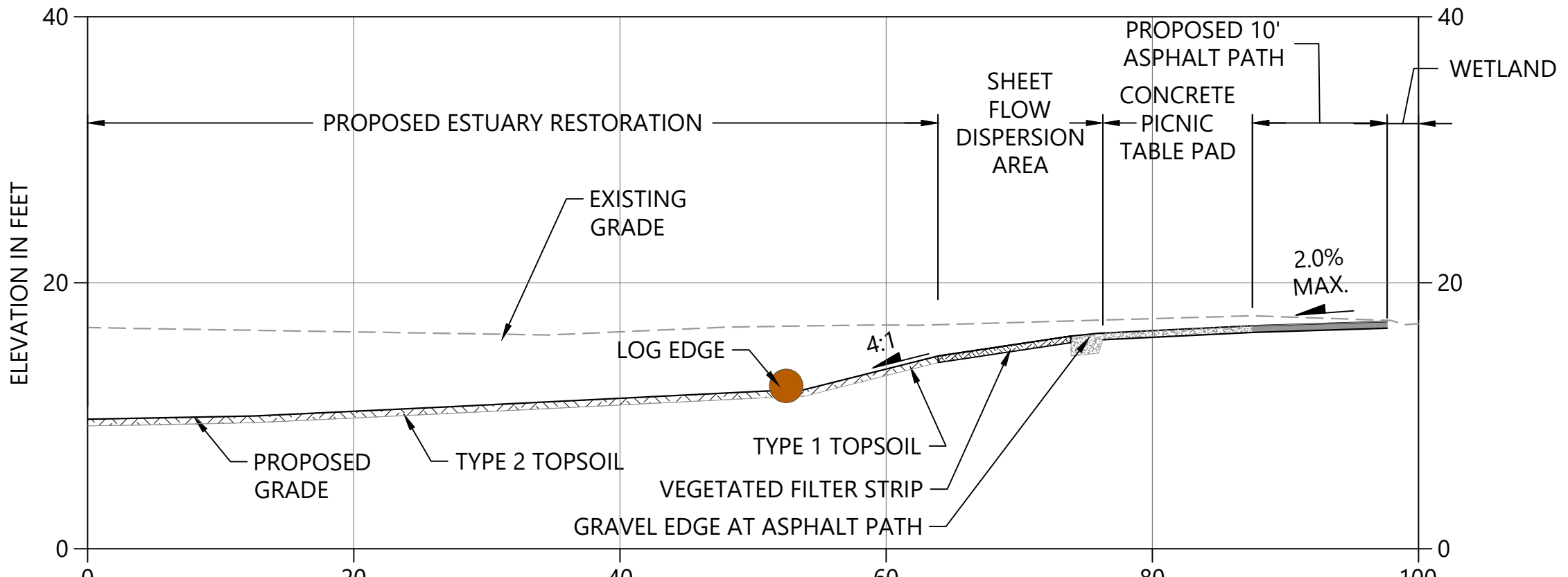
F SECTION  
C-1 SCALE: 1" = 10'

LIQUEFACTION MITIGATION  
EXCAVATION AREA: EXCAVATE AS  
SHOWN AND BACKFILL WITH  
SELECT FILL. SEE SHEET CM-1 FOR  
PLAN VIEW WIDTH OF  
EXCAVATION AND BACKFILL  
BASED ON 8' MIN. FROM OUTSIDE  
EDGES OF BRIDGE ABUTMENTS IN  
DIRECTION OF TRAVEL

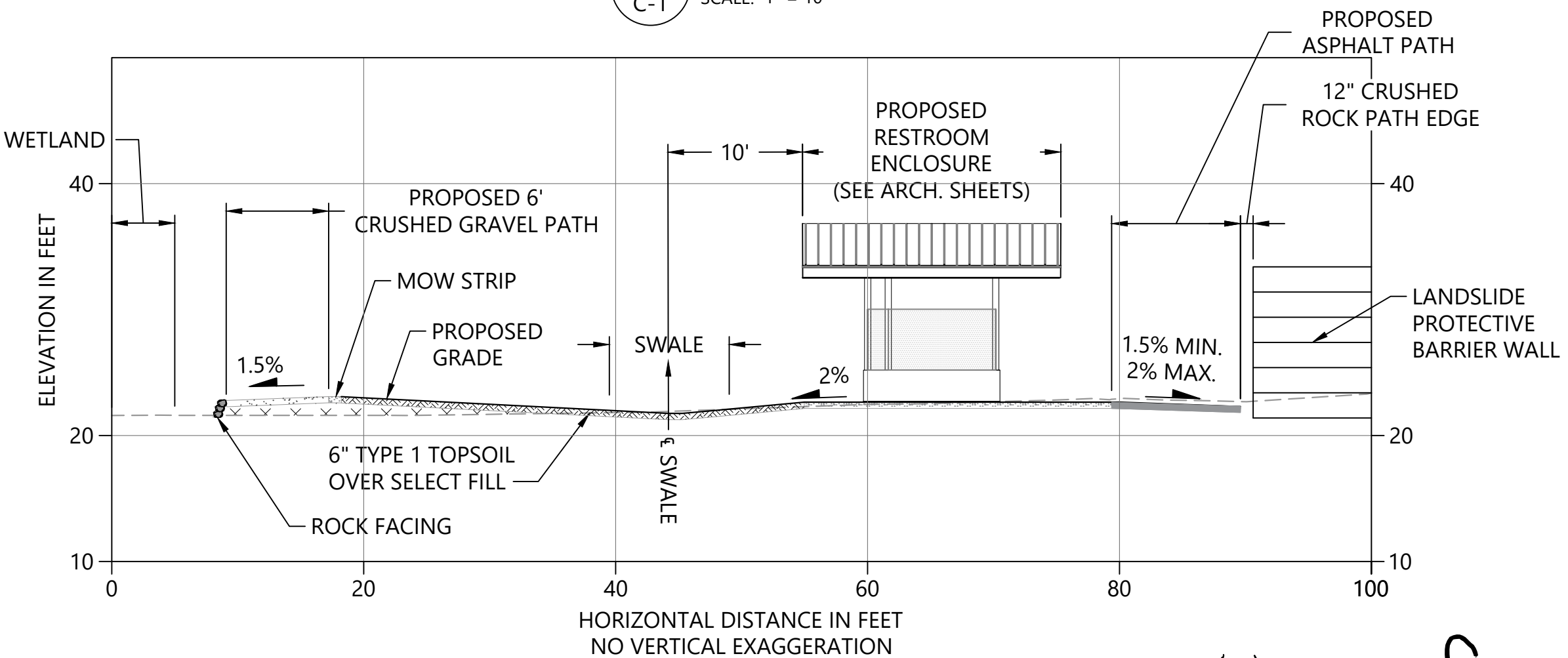
**UTILITY LOCATIONS:**  
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**WORK WITHIN BNSF RIGHT-OF-WAY:**  
FOR ALL WORK WITHIN BNSF RIGHT-OF-WAY, SEE PROJECT SPECIFICATIONS FOR REQUIREMENTS OF WORK WITHIN BNSF RIGHT-OF-WAY AND MEADOWDALE BEACH RAILROAD BRIDGE CIVIL AND STRUCTURAL DRAWINGS BY HANSON PROFESSIONAL SERVICES, INC.

- LEGEND:
- 6" TYPE 1 TOPSOIL
  - 6" TYPE 2 TOPSOIL
  - TYPE 1 TOPSOIL OVER ON-SITE SALVAGED SAND
  - 12" BEACH SAND
  - STREAMBED COBBLES
  - ROCK ARMORING
  - CRUSHED ROCK PATH
  - ASPHALT PAVEMENT
  - COMMON FILL
  - CONCRETE
  - LARGE WOODY DEBRIS



G SECTION  
C-1 SCALE: 1" = 10'



H SECTION  
C-1 SCALE: 1" = 10'

0 10 20  
SCALE IN FEET

APPROVED FOR CONSTRUCTION  
BY: *[Signature]*  
R/W PERMIT NO. NA  
DATE 10/29/2020  
PFN: 19-103913LDA

100% CONSTRUCTION DRAWINGS/BID SET

REVISIONS					DESCRIPTION
REV	DATE	BY	APP'D		

DESIGNED BY: DR  
DRAWN BY: CH/TG  
CHECKED BY: DR  
APPROVED BY: DR  
SCALE: 1" = 10'  
DATE: SEPTEMBER 2020



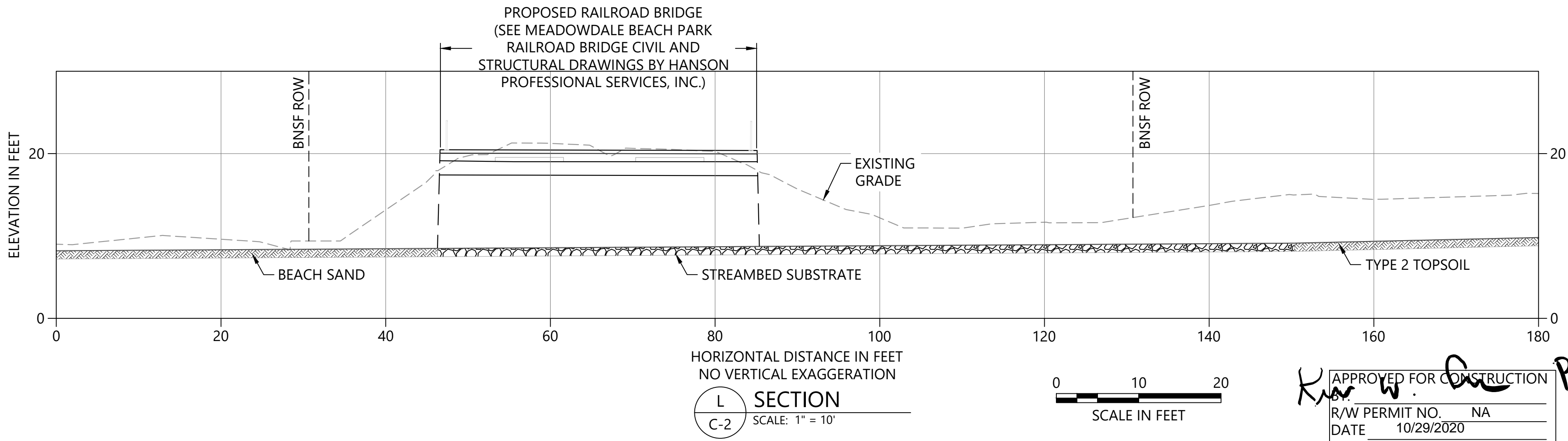
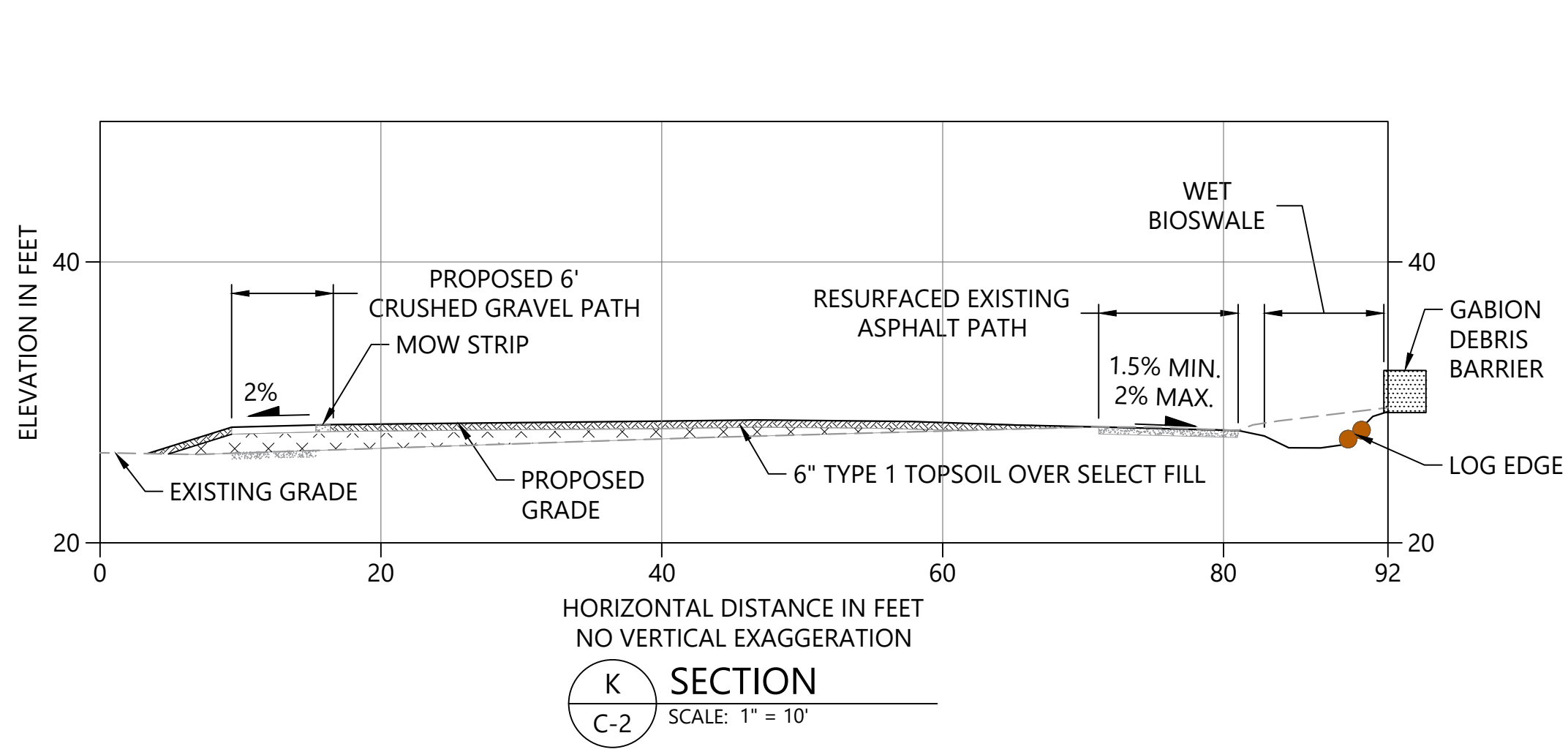
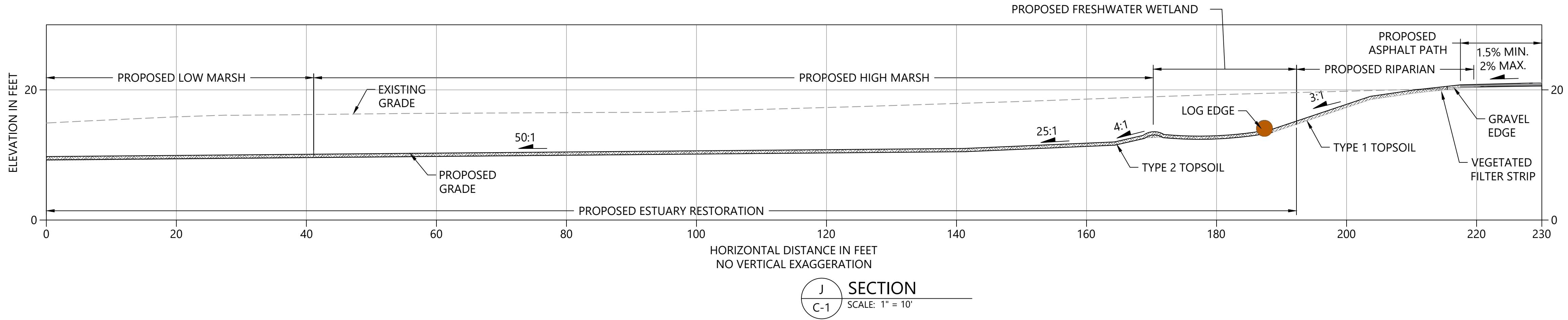
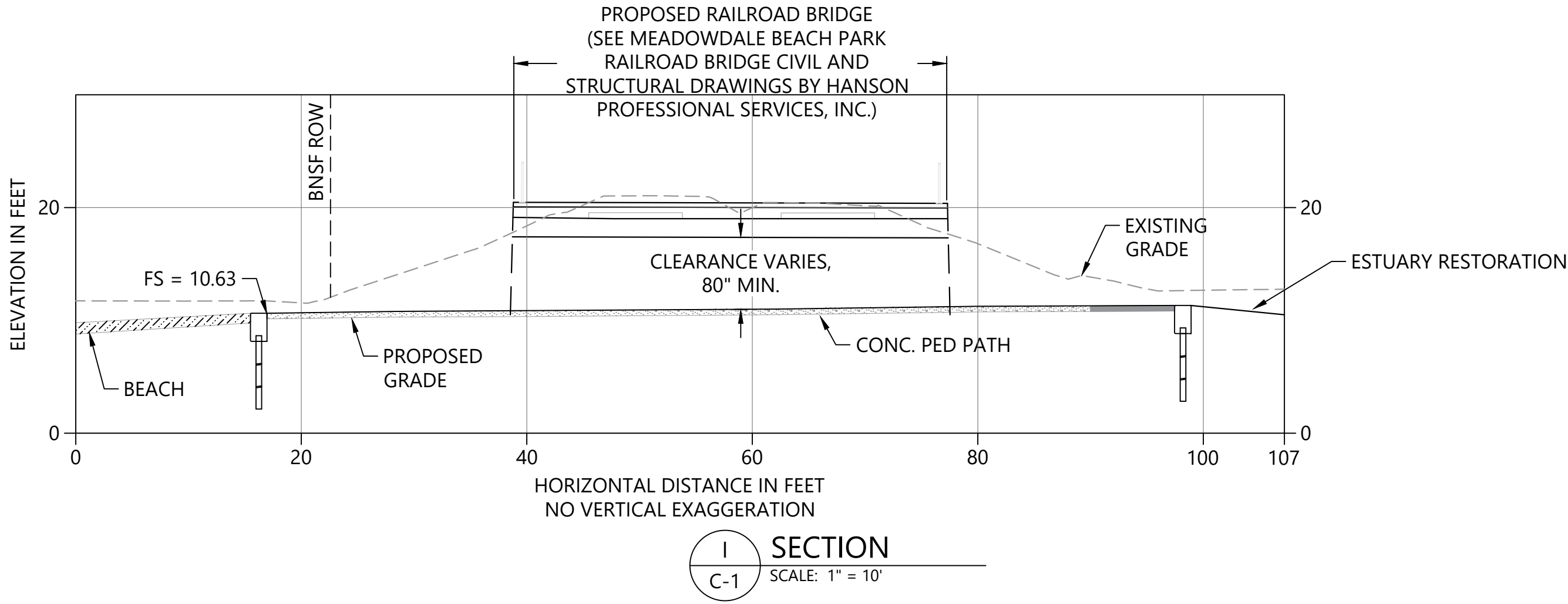
SECTION 5, TOWNSHIP 27 N., RANGE 4 E

**UTILITY LOCATIONS:**  
ALL UTILITY WORK WITHIN THE BNSF RIGHT-OF-WAY INCLUDING, BUT NOT LIMITED TO, LOCATION, PROTECTION, INSTALLATION, AND RELOCATION OF UTILITIES SHALL COMPLY WITH BNSF'S UTILITY ACCOMMODATION MANUAL ([HTTP://WWW.BNSF.COM/COMMUNITIES/FAQS/PDF/UTILITY.PDF](http://www.bnsf.com/communities/faqs/pdf/utility.pdf)).

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**WORK WITHIN BNSF RIGHT-OF-WAY:**  
FOR ALL WORK WITHIN BNSF RIGHT-OF-WAY, SEE PROJECT SPECIFICATIONS FOR REQUIREMENTS OF WORK WITHIN BNSF RIGHT-OF-WAY AND MEADOWDALE BEACH RAILROAD BRIDGE CIVIL AND STRUCTURAL DRAWINGS BY HANSON PROFESSIONAL SERVICES, INC.

- LEGEND:
- 6" TYPE 1 TOPSOIL
  - 6" TYPE 2 TOPSOIL
  - TYPE 1 TOPSOIL OVER ON-SITE SALVAGED SAND
  - 12" BEACH SAND
  - STREAMBED COBBLES
  - ROCK ARMORING
  - CRUSHED ROCK PATH OR TRENCH
  - ASPHALT PAVEMENT
  - CONCRETE PATH
  - LARGE WOODY DEBRIS



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DESIGNED BY: DR  
DRAWN BY: CH/TG  
CHECKED BY: DR  
APPROVED BY: DR  
SCALE: 1" = 10'  
DATE: SEPTEMBER 2020

MEADOWDALE BEACH PARK  
AND ESTUARY DESIGN  
PFN 19-103913LDA

GRADING CROSS-SECTIONS (3 OF 4)

C-6

SHEET # 24 OF 81



SECTION 5, TOWNSHIP 27 N., RANGE 4 E

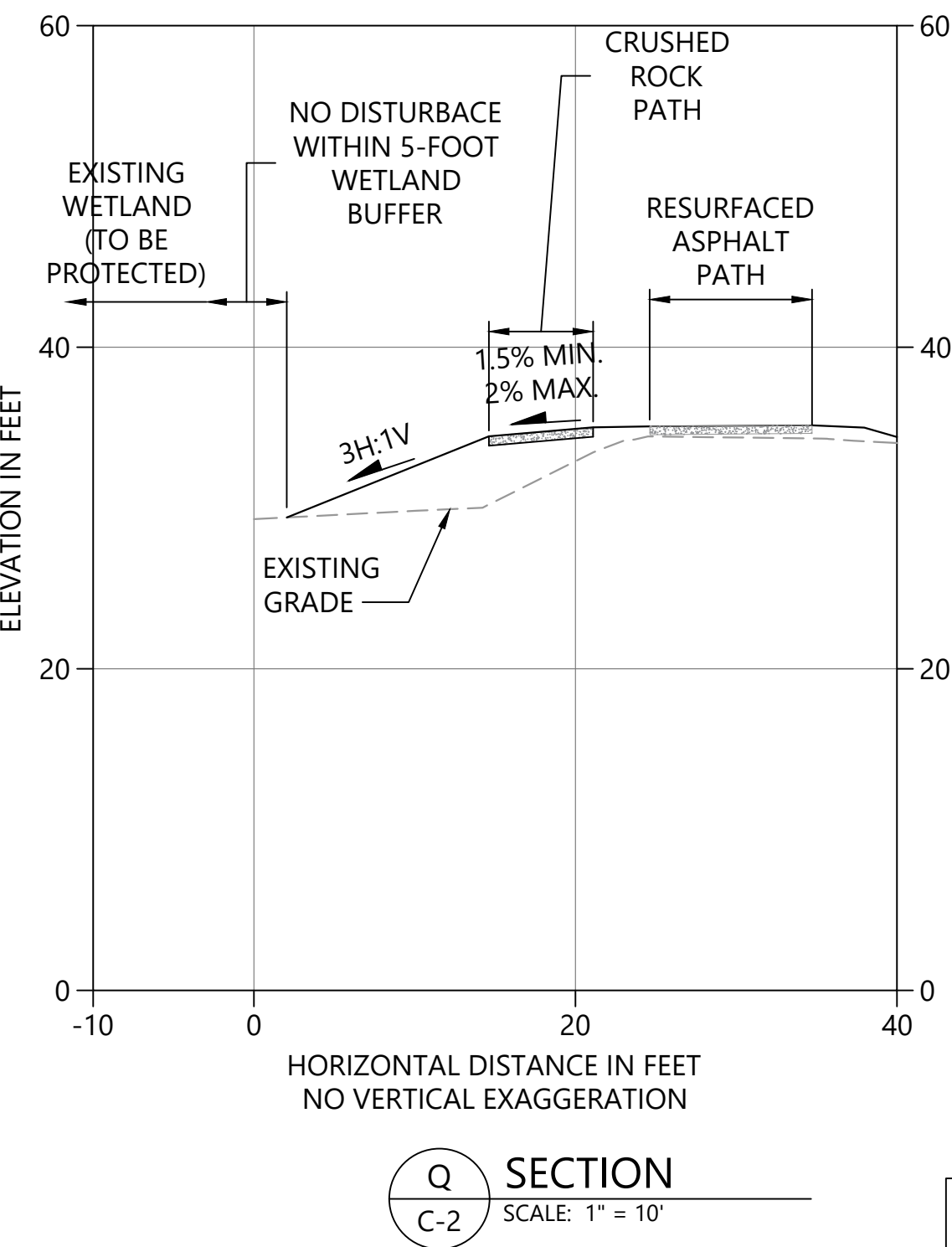
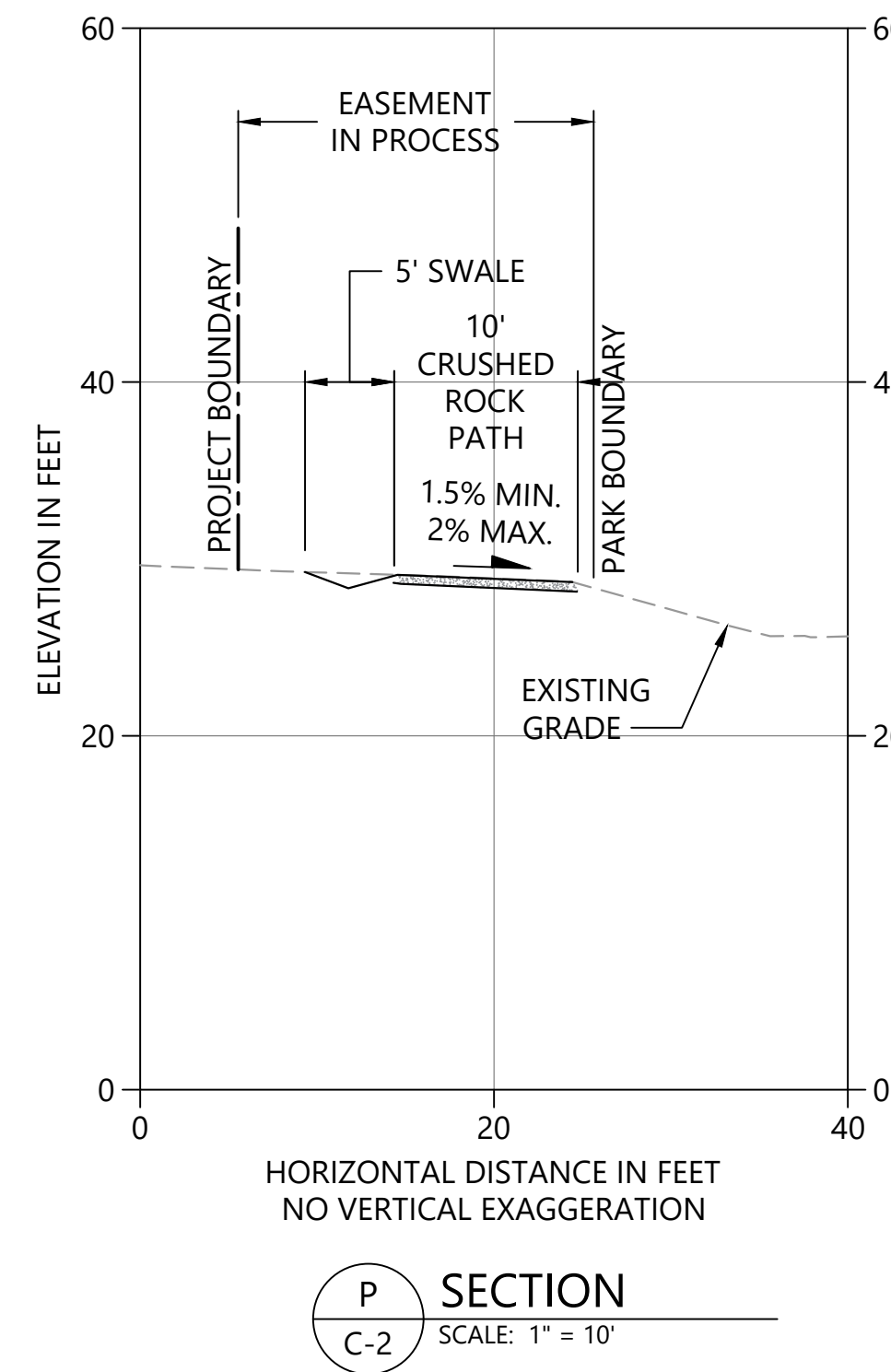
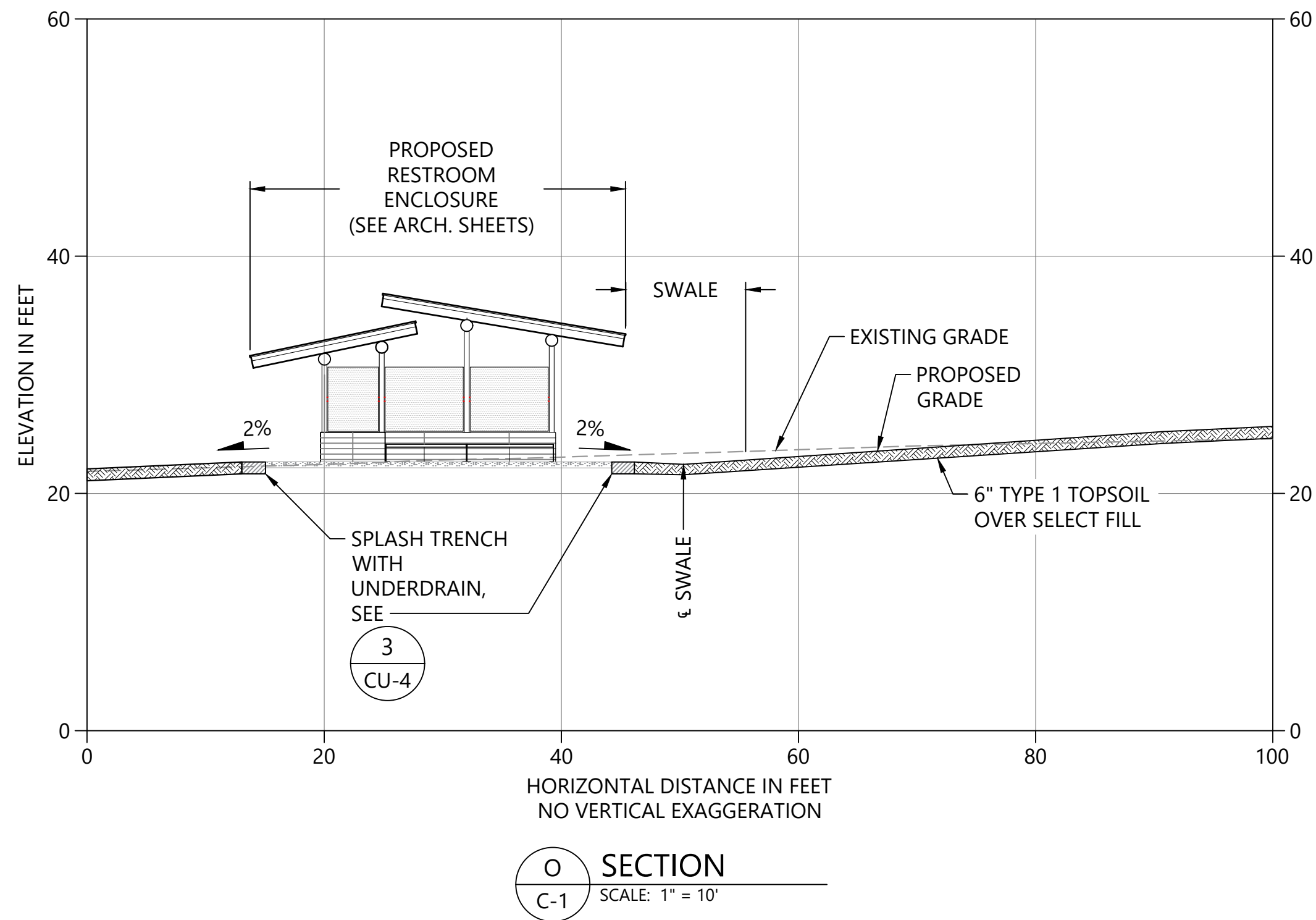
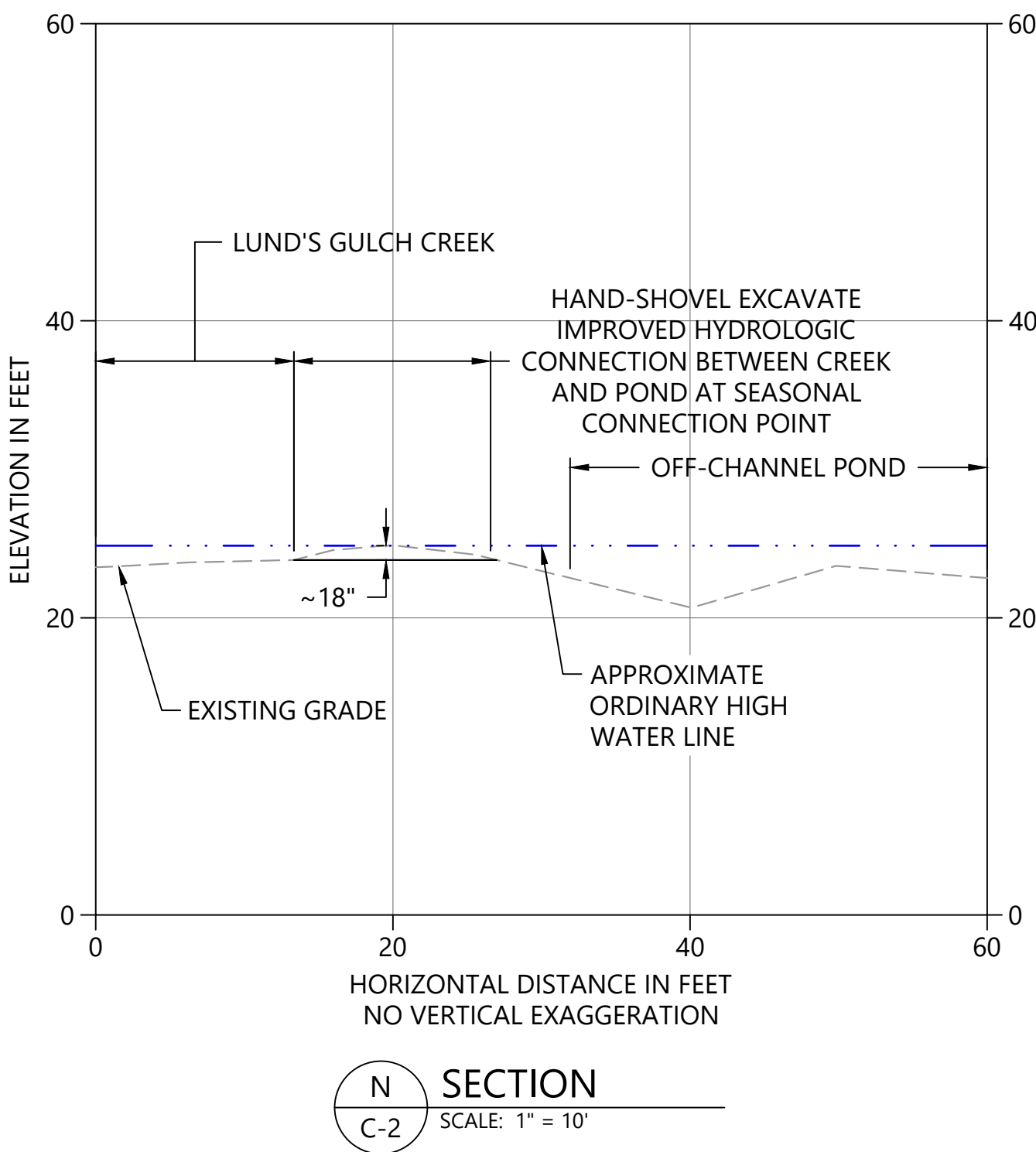
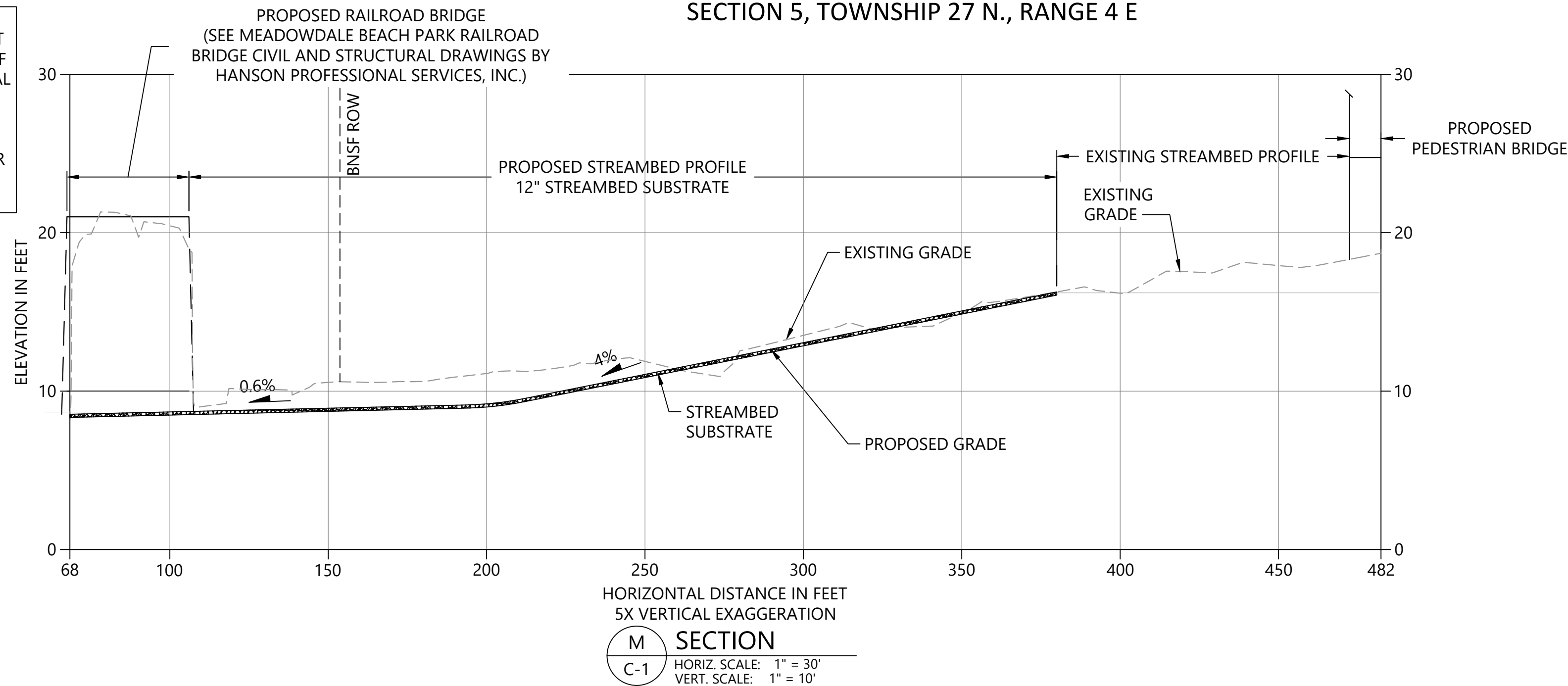
UTILITY LOCATIONS:

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APPROVED FOR CONSTRUCTION  
BY: *[Signature]*  
R/W PERMIT NO. NA  
DATE 10/29/2020  
PFN: 19-103913LDA

0 10 20  
SCALE IN FEET

100% CONSTRUCTION DRAWINGS/BID SET

ONE INCH  
AT FULL SIZE, IF NOT ONE  
INCH SCALE ACCORDINGLY



REVISIONS					DESCRIPTION
REV	DATE	BY	APP'D		

DESIGNED BY: DR  
DRAWN BY: CH/TG  
CHECKED BY: DR  
APPROVED BY: DR  
SCALE: 1" = 10'  
DATE: SEPTEMBER 2020

MEADOWDALE BEACH PARK  
AND ESTUARY DESIGN  
PFN 19-103913LDA

GRADING CROSS SECTIONS (4 OF 4)

C-7

SHEET # 25 OF 81



SECTION 5, TOWNSHIP 27 N., RANGE 4 E

**UTILITY LOCATIONS:**  
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FOR ALL WORK WITHIN BNSF RIGHT-OF-WAY, SEE PROJECT SPECIFICATIONS FOR REQUIREMENTS OF WORK WITHIN BNSF RIGHT-OF-WAY AND MEADOWDALE BEACH RAILROAD BRIDGE CIVIL AND STRUCTURAL DRAWINGS BY HANSON PROFESSIONAL SERVICES, INC.

PLACE SALVAGED DRIFTWOOD IN REGRADED BEACH AREA

BEACH SAND

PUGET SOUND

NOTES:

1. HORIZONTAL DATUM: WASHINGTON STATE PLANE NORTH ZONE, NAD 83, U.S. FEET.
2. VERTICAL DATUM: NAVD 88
3. DRAWINGS ARE INTENDED TO BE VIEWED IN COLOR. SOME INFORMATION WILL BE LOST WITH BLACK AND WHITE VIEWING.
4. PATHWAY WIDENING TO 10 FEET REQUIRES WORK ON ADJACENT PROPERTY. OBTAINING AN EASEMENT FOR THIS WORK IS UNDERWAY AND WILL BE COMPLETED PRIOR TO CONSTRUCTION START DATE.
5. TYPE 2 CAPA SIGNS SHALL BE LOCATED AT CRITICAL AREA BUFFERS LIMITS AT 100' O.C. MAX. SPACING. SEE CRITICAL AREA SITE PLANS IN APPENDIX A APPROVED PROJECT PERMITS, FOR LOCATIONS OF CRITICAL AREA PROTECTION BOUNDARIES (BASED ON CRITICAL AREA BUFFER LIMITS). EXTENT OF TYPE 2 SIGNS EXTENDS BEYOND LIMITS OF CONSTRUCTION DRAWINGS, AND FINAL LOCATIONS SHALL BE APPROVED IN THE FIELD BY THE OWNER PRIOR TO INSTALLATION.

TRACT "A" TIDELANDS

BNSF RAILWAY

FOOTWASH AND LANDSCAPE BOULDER

PICNIC TABLE (TYP.)

10' WIDE ASPHALT PATH (TYP.)

ADA PICNIC TABLE ON CONC SLAB

"ESTUARY HABITAT" INTERPRETIVE SIGN

GRAVEL EDGE AT ASPHALT PATH AND CONCRETE PADS

BACKLESS BENCH ON CONC SLAB

LIGHT POLE, SEE ELECTRICAL PLAN

SHEETPILE WALL AND CONCRETE CAP END

LOG EDGING

BACKLESS BENCH ON CONC. SLAB (TYP.)

CAPA SIGN TYPE 1

INSTALL SIGNAGE WITH BRIDGE LOAD LIMIT (SEE SHEET SB-1 AND SPECIFICATIONS) SIGN MOUNTING HEIGHT 6' ABOVE PATH SURFACE

BOARDWALK PATH AND ABUTMENTS (SEE SHEETS S-2.3 AND S-3.4)

LIMIT DISTURBANCE TO WETLAND

CONCRETE PLINTH OR PILASTER (SEE SHEET S-3.3)

40' PEDESTRIAN BRIDGE (SEE SHEET SB-1)

10' WIDE CRUSHED ROCK PATH

ADA PICNIC TABLE

PICNIC TABLE

TOPSOIL TYPE 1

CONC. PAVING

DETAIL, 1" = 10'

SEE HANSON CIVIL AND STRUCTURAL DRAWINGS FOR RETAINING WALL

TOOL JOINT (TYP.) 5' MAX. SPACING

EXPANSION JOINT (TYP.) 15' MAX. SPACING

SHEETPILE WALL WITH RAISED CONC. CAP

SHEETPILE WALL WITH RAISED CONC. EDGE

FOR FENCING IN BNSF ROW, SEE HANSON CIVIL DRAWINGS

BNSF RIGHT OF WAY

WETLAND

WILDLIFE TREE SNAG, TYP.

TOPSOIL TYPE 2

WILDLIFE TREE SNAG, TYP.

CAPA SIGN TYPE 1

CAPA SIGN TYPE 2

SEE HANSON CIVIL SHEET CP-09 FOR ROCK ARMOR ASSOCIATED WITH RAILROAD BRIDGE CONSTRUCTION

WETLAND

WETLAND

WETLAND

WETLAND

LEGEND:

- PARK BOUNDARY
- PROJECT BOUNDARY
- EXISTING ORDINARY HIGH WATER MARK (OHWM)
- EXISTING MHHW (EL. +9.0' MLLW)
- PROPOSED MHHW (EL. +9.0' MLLW)
- CAPA BOUNDARY
- TYPE 1 CAPA SIGNAGE (SEE APPENDICES FOR DETAILS)
- TYPE 2 CAPA SIGNAGE (SEE APPENDICES FOR DETAILS)
- 6" TYPE 1 TOPSOIL AND JUTE FABRIC
- 6" TYPE 2 TOPSOIL AND COIR FABRIC
- 6" TYPE 1 TOPSOIL OVER SELECT FILL
- 12" BEACH SAND/GRAVEL
- SHEETPILE WALL
- STREAMBED LARGE WOODY DEBRIS
- ESTUARY LARGE WOODY DEBRIS
- ROCK ARMORING (SEE HANSON CIVIL SHEET CP-09 FOR ROCK ARMORING WITHIN BNSF ROW)
- STREAMBED AND SWALE COBBLES
- CRUSHED ROCK PATH OR TRENCH
- ASPHALT PAVEMENT
- CONCRETE PATH/PAD/MOW STRIP
- PEDESTRIAN BRIDGE (SEE DETAILS, SHEET S-4)
- BOARDWALK PATH (SEE DETAILS, SHEET S-3.4)
- EXISTING WETLAND TO BE PROTECTED
- LOG EDGING
- CHAIN LINK FENCE
- PICNIC TABLE ON CONC SLAB
- ADA PICNIC TABLE ON CONC SLAB
- BACKLESS BENCH ON CONC SLAB
- WILDLIFE TREE SNAGS
- INTERPRETIVE SIGN MOUNTINGS
- LANDSLIDE PROTECTIVE BARRIER
- GABION WALL
- BNSF RIGHT OF WAY
- LIQUEFACTION MITIGATION EXCAVATION AREA AND SELECT FILL PLACEMENT AREA (SEE SHEETS C-1 AND C-5, CROSS SECTION F)

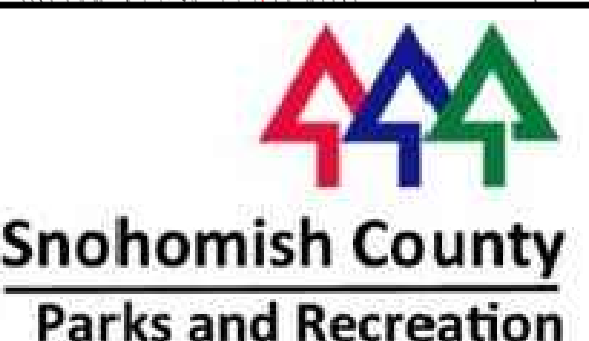


NORTH

APPROVED FOR CONSTRUCTION  
R/W PERMIT NO. NA  
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PFN: 19-103913LDA

100% CONSTRUCTION DRAWINGS/BID SET

ONE INCH = 30 FEET  
AT FULL SCALE IF NOT ONE INCH SCALE ACCORDINGLY



REVISIONS					DESCRIPTION	
REV	DATE	BY	APP'D			

DESIGNED BY: PH  
DRAWN BY: CH/TG  
CHECKED BY: DR  
APPROVED BY: PH  
SCALE: 1" = 30'  
DATE: SEPTEMBER 2020

MEADOWDALE BEACH PARK  
AND ESTUARY DESIGN  
PFN 19-103913LDA

CONSTRUCTION MATERIALS PLAN (1 OF 3)

CM-1

SHEET # 26 OF 81

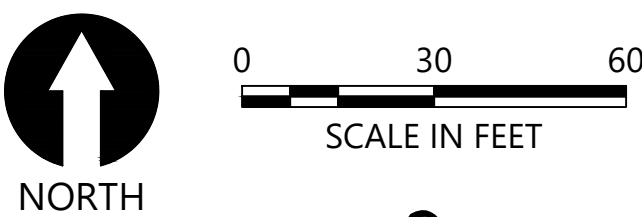


SECTION 5, TOWNSHIP 27 N., RANGE 4 E

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- NOTES:
1. HORIZONTAL DATUM: WASHINGTON STATE PLANE NORTH ZONE, NAD 83, U.S. FEET.
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  5. TYPE 2 CAPA SIGNS SHALL BE LOCATED AT CRITICAL AREA BUFFERS LIMITS AT 100' O.C. MAX. SPACING. SEE CRITICAL AREA SITE PLANS IN APPENDIX A APPROVED PROJECT PERMITS, FOR LOCATIONS OF CRITICAL AREA PROTECTION BOUNDARIES (BASED ON CRITICAL AREA BUFFER LIMITS). EXTENT OF TYPE 2 SIGNS EXTENDS BEYOND LIMITS OF CONSTRUCTION DRAWINGS, AND FINAL LOCATIONS SHALL BE APPROVED IN THE FIELD BY THE OWNER PRIOR TO INSTALLATION.
  6. CONTRACTOR SHALL PROVIDE CONTINUOUS UTILITY SERVICE AND DRIVEWAY ACCESS TO RANGER RESIDENCE.

- LEGEND:
- PARK BOUNDARY
  - PROJECT BOUNDARY
  - EXISTING ORDINARY HIGH WATER MARK (OHWM)
  - EXISTING MHHW (EL. +9.0' MLLW)
  - PROPOSED MHHW (EL. +9.0' MLLW)
  - CAPA BOUNDARY
  - TYPE 1 CAPA SIGNAGE (SEE APPENDICES FOR DETAILS)
  - TYPE 2 CAPA SIGNAGE (SEE NOTE 5)
  - 6" TYPE 1 TOPSOIL AND JUTE FABRIC
  - 6" TYPE 2 TOPSOIL AND COIR FABRIC
  - 6" TYPE 1 TOPSOIL OVER SELECT FILL
  - 12" BEACH SAND/GRAVEL
  - SHEETPILE WALL
  - STREAMBED LARGE WOODY DEBRIS
  - ESTUARY LARGE WOODY DEBRIS
  - ROCK ARMORING (SEE HANSON CIVIL SHEET CP-09 FOR ROCK ARMORING WITHIN BNSF ROW)
  - STREAMBED AND SWALE COBBLES
  - CRUSHED ROCK PATH OR TRENCH
  - ASPHALT PAVEMENT
  - CONCRETE PATH/PAD/MOW STRIP
  - PEDESTRIAN BRIDGE (SEE DETAILS, SHEET S-4)
  - BOARDWALK PATH (SEE DETAILS, SHEET S-3.4)
  - EXISTING WETLAND TO BE PROTECTED
  - LOG EDGING
  - CHAIN LINK FENCE
  - PICNIC TABLE ON CONC SLAB
  - ADA PICNIC TABLE ON CONC SLAB
  - BACKLESS BENCH ON CONC SLAB
  - WILDLIFE TREE SNAGS
  - INTERPRETIVE SIGN MOUNTINGS
  - LANDSLIDE PROTECTIVE BARRIER
  - REINFORCED TURF
  - DOWELED TWO-RAIL WOOD FENCE
  - GABION WALL



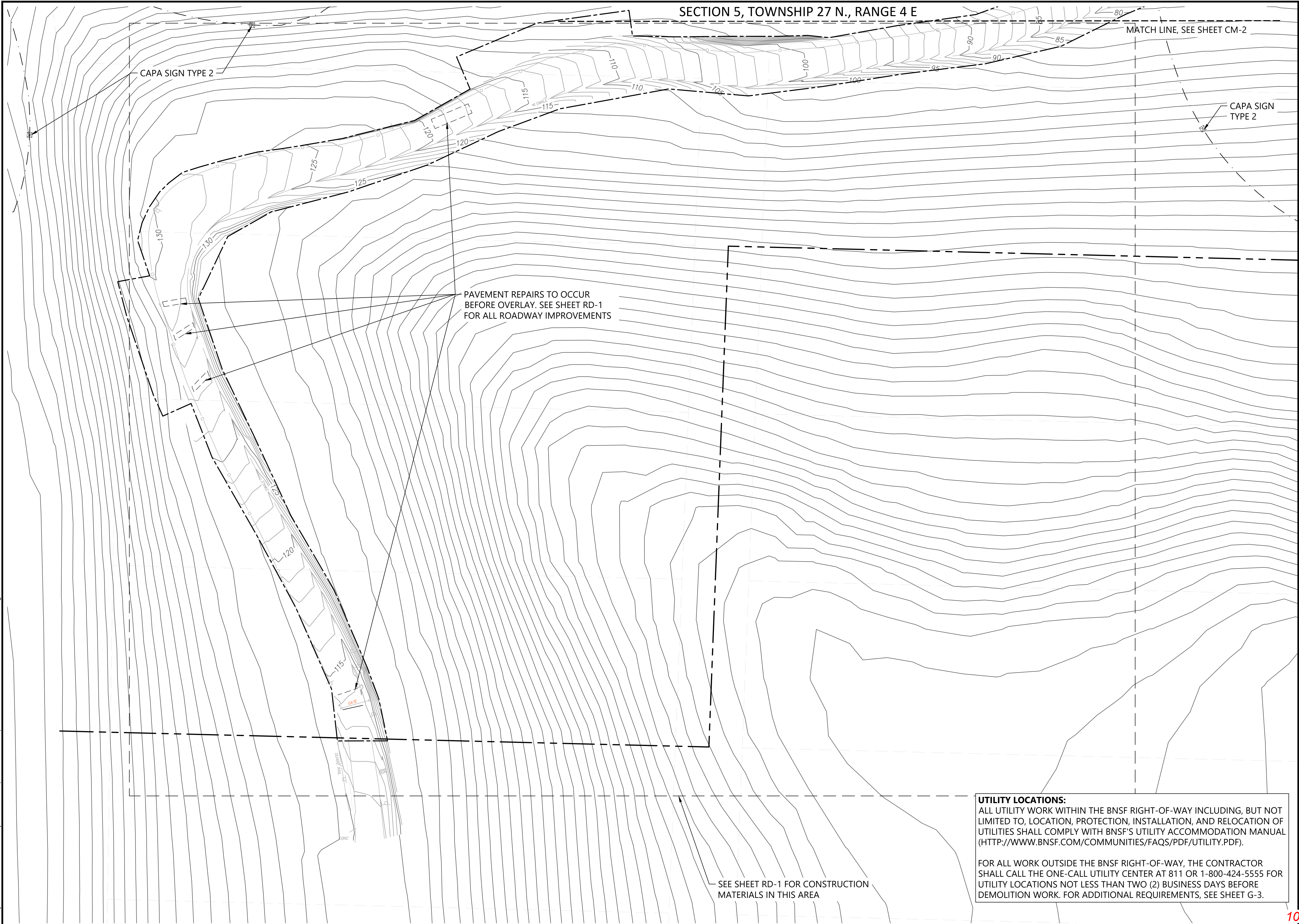
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R/W PERMIT NO. NA  
DATE 10/29/2020  
PFN: 19-103913LDA

100% CONSTRUCTION DRAWINGS/BID SET

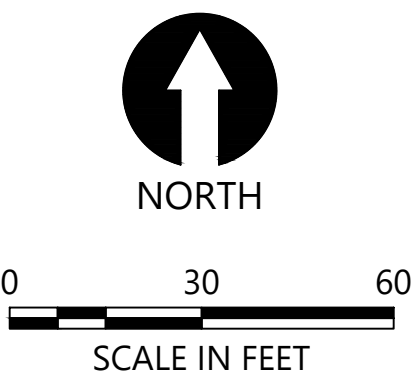
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REV	DATE	BY	APP'D		

DESIGNED BY: PH  
DRAWN BY: CH/TG  
CHECKED BY: DR  
APPROVED BY: PH  
SCALE: 1" = 30'  
DATE: SEPTEMBER 2020





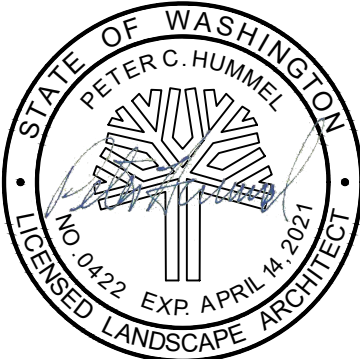
- LEGEND:
- PARK BOUNDARY
  - PROJECT BOUNDARY
  - CAPA BOUNDARY
  - TYPE 2 (SEE NOTE 5) ☒ CAPA SIGNAGE (SEE APPENDICES FOR DETAILS)



- NOTES:
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MEADOWDALE BEACH PARK  
AND ESTUARY DESIGN  
PFN 19-103913LDA

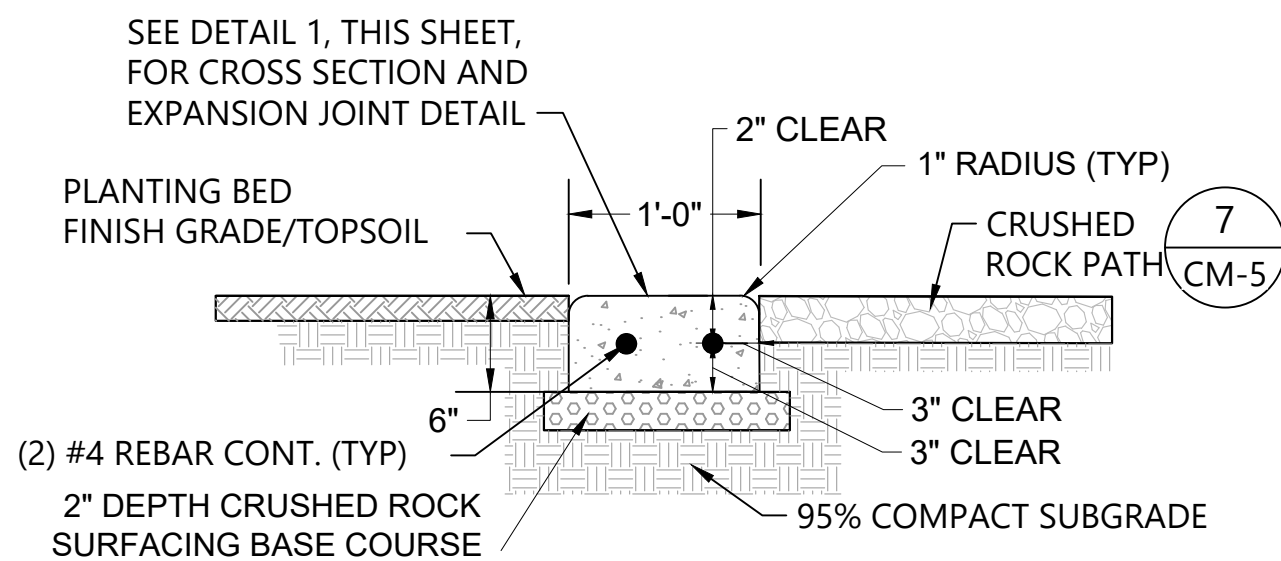
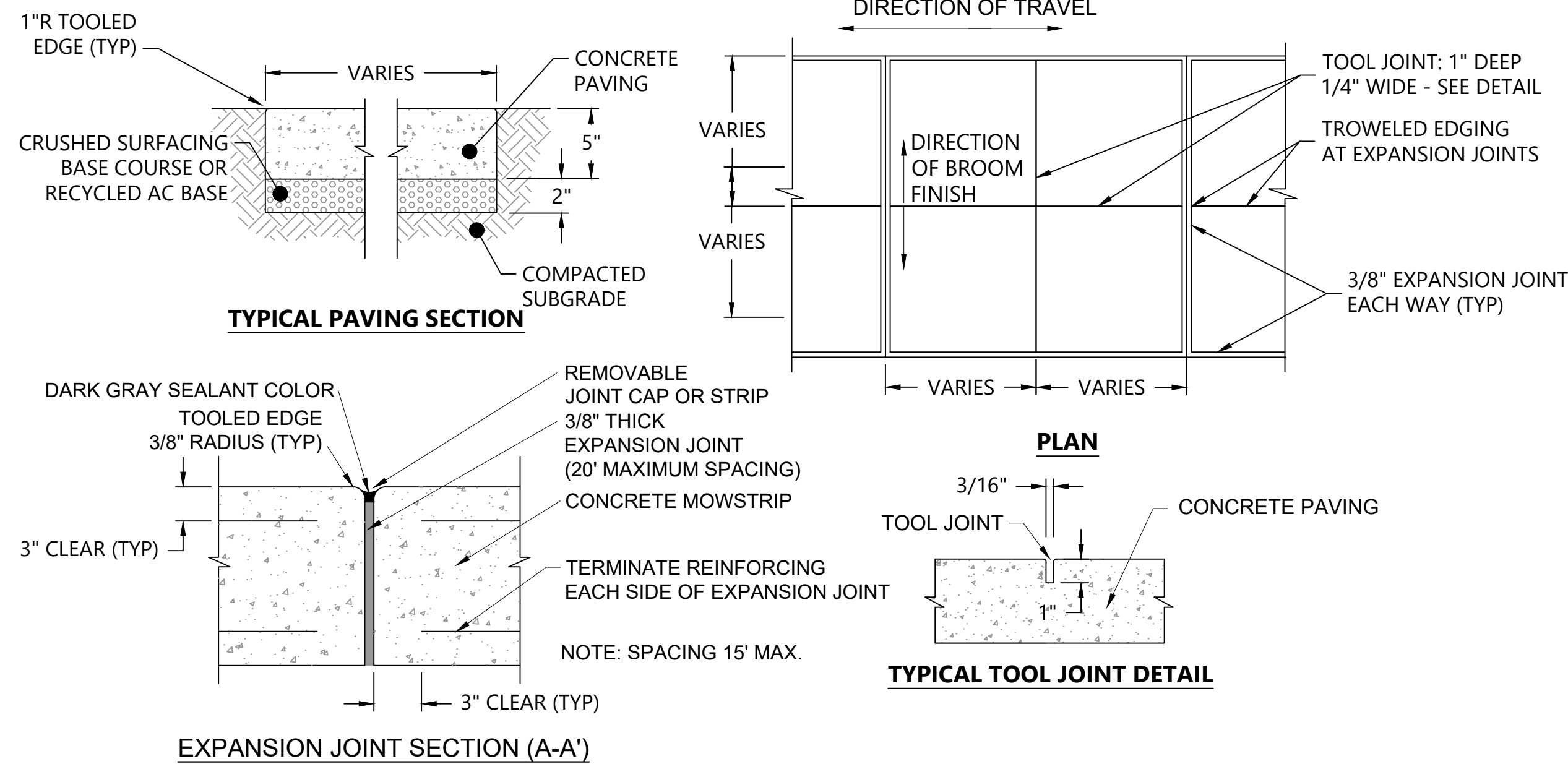
CONSTRUCTION MATERIALS PLAN (3 OF 3)

CM-3

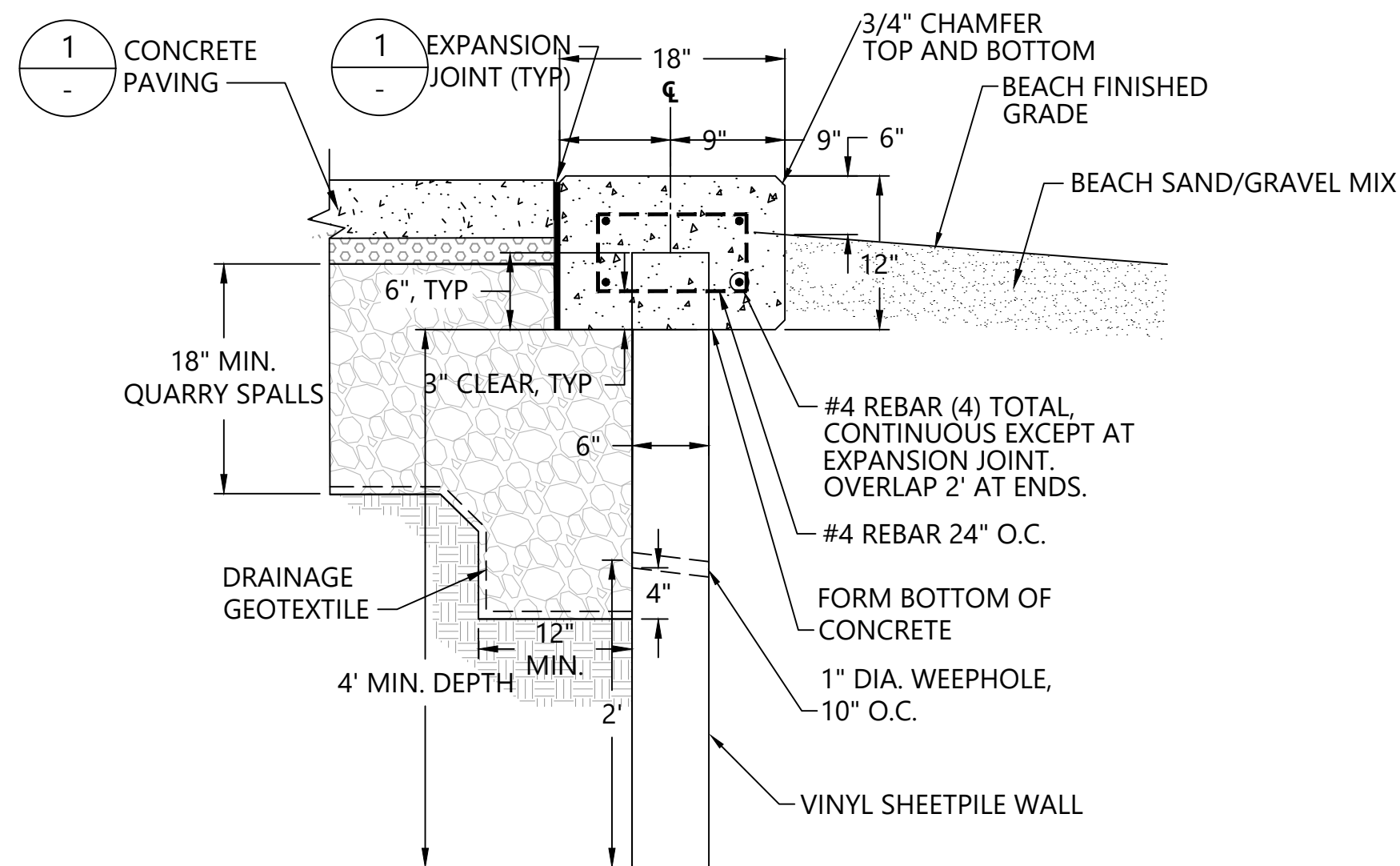
SHEET # 28 OF 81



SECTION 5, TOWNSHIP 27 N., RANGE 4 E

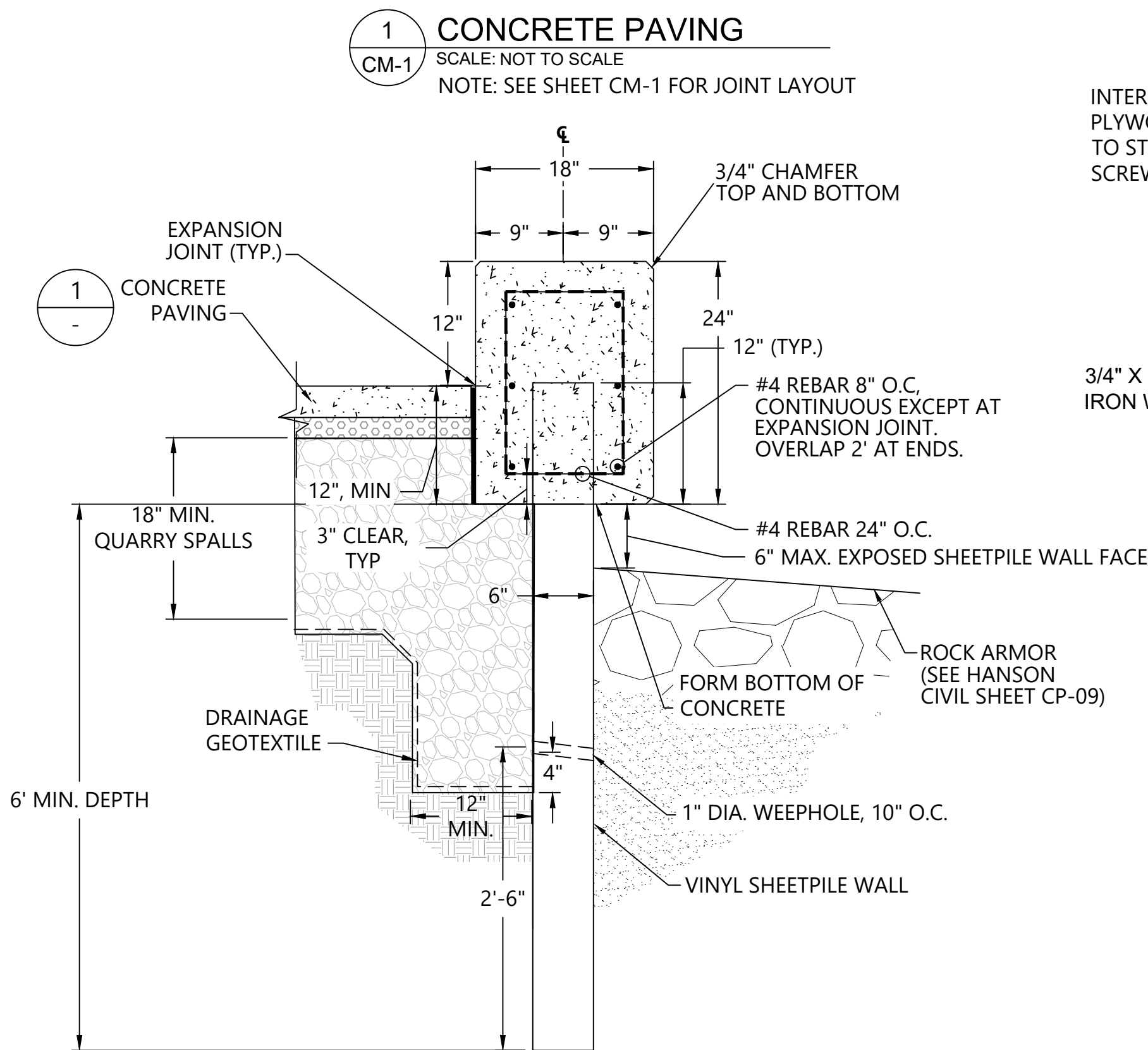


2 CONCRETE MOWSTRIP  
SCALE: NOT TO SCALE



3 SHEETPILE WALL WITH CONCRETE CAP  
SCALE: NOT TO SCALE

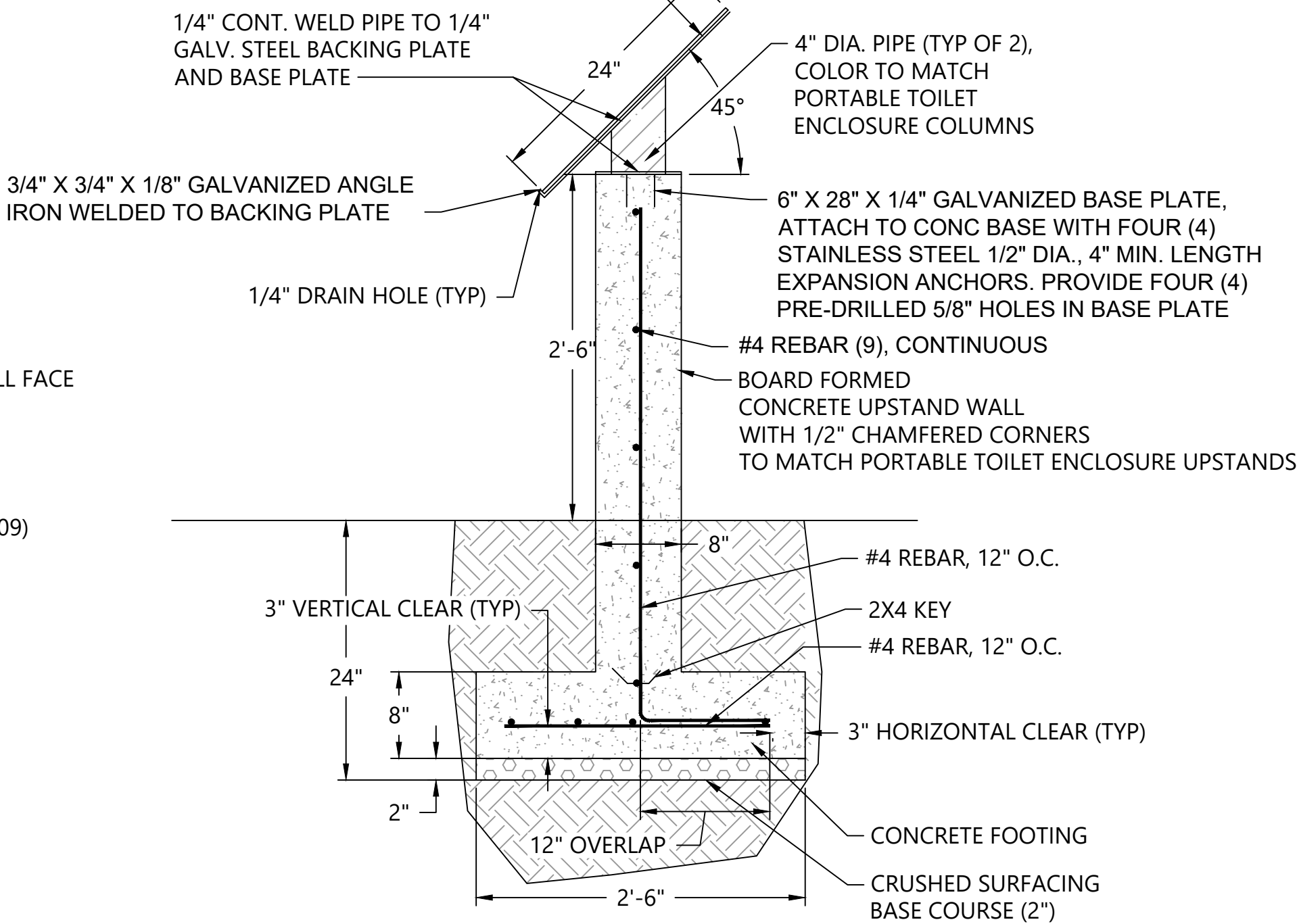
NOTE: PROVIDE EXPANSION JOINTS IN CONC. EDGE TO ALIGN WITH CONC. PAVING (15' MAX SPACING)



4 SHEETPILE WALL WITH RAISED CONCRETE EDGE  
SCALE: NOT TO SCALE

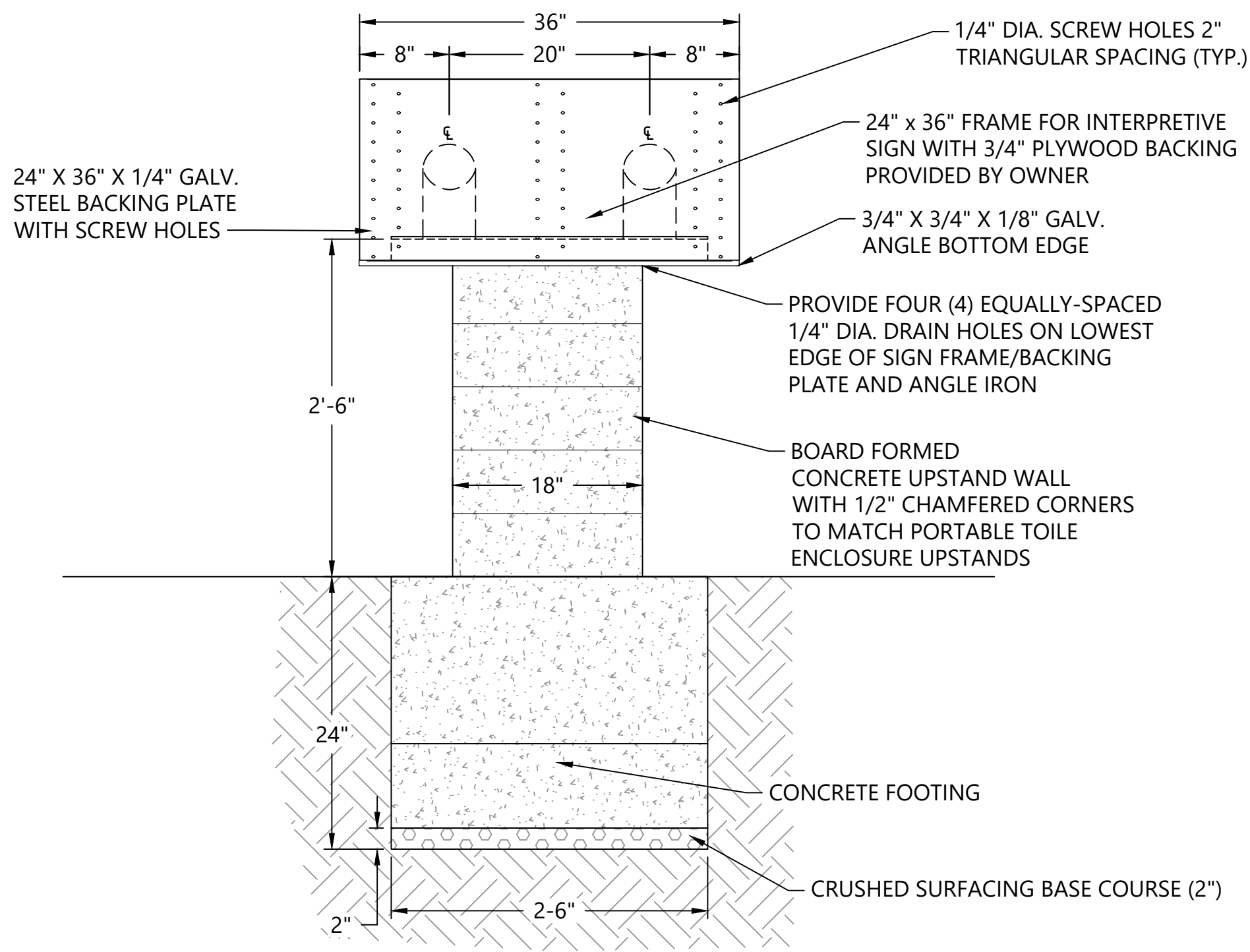
NOTE: PROVIDE EXPANSION JOINTS IN CONC. EDGE TO ALIGN WITH CONC. PAVING (15' MAX SPACING)

INTERPRETIVE SIGN MOUNTED ON 1/2" THICK MARINE PLYWOOD BACKING BOARD. SECURE PLYWOOD BACKING TO STEEL SIGN FRAME WITH 3/8" LONG STAINLESS STEEL SCREWS FROM BACK OF STEEL SIGN FRAME



TYP. SECTION

5 INTERPRETIVE SIGN BASE AND FRAME  
SCALE: NOT TO SCALE



ELEVATION

APPROVED FOR CONSTRUCTION  
R/W PERMIT NO. NA  
DATE 10/29/2020  
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100% CONSTRUCTION DRAWINGS/BID SET

REVISIONS					
REV	DATE	BY	APP'D	DESCRIPTION	

DESIGNED BY: PH  
DRAWN BY: CH/TG  
CHECKED BY: DR  
APPROVED BY: PH  
SCALE: AS NOTED  
DATE: SEPTEMBER 2020

MEADOWDALE BEACH PARK  
AND ESTUARY DESIGN  
PFN 19-103913LDA

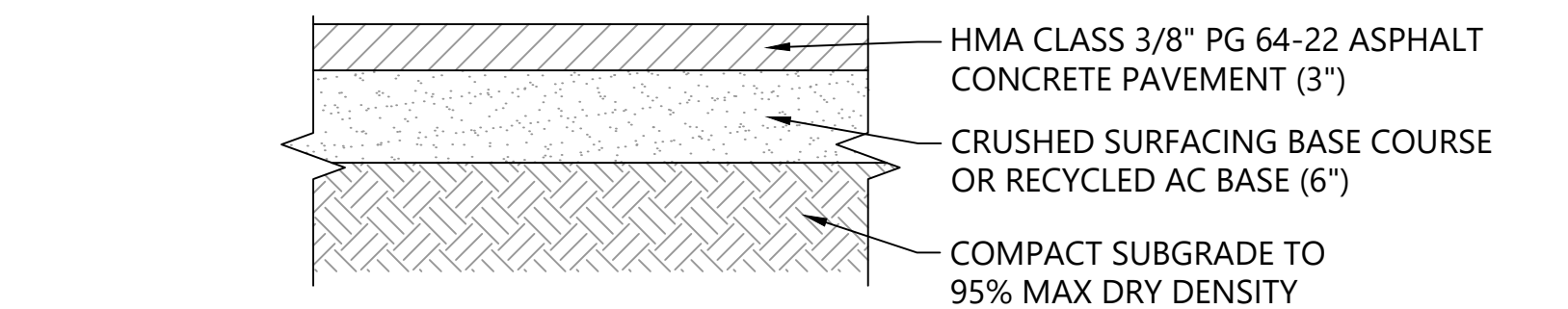
CONSTRUCTION MATERIAL DETAILS (1 OF 6)

CM-4

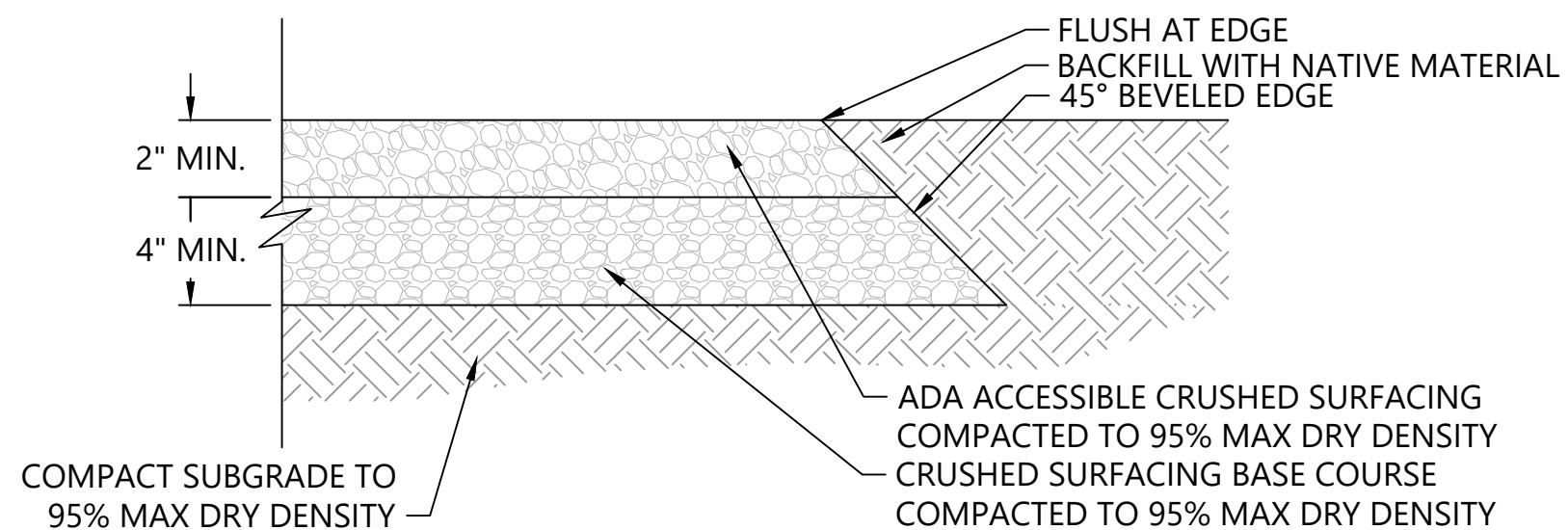
SHEET # 29 OF 81



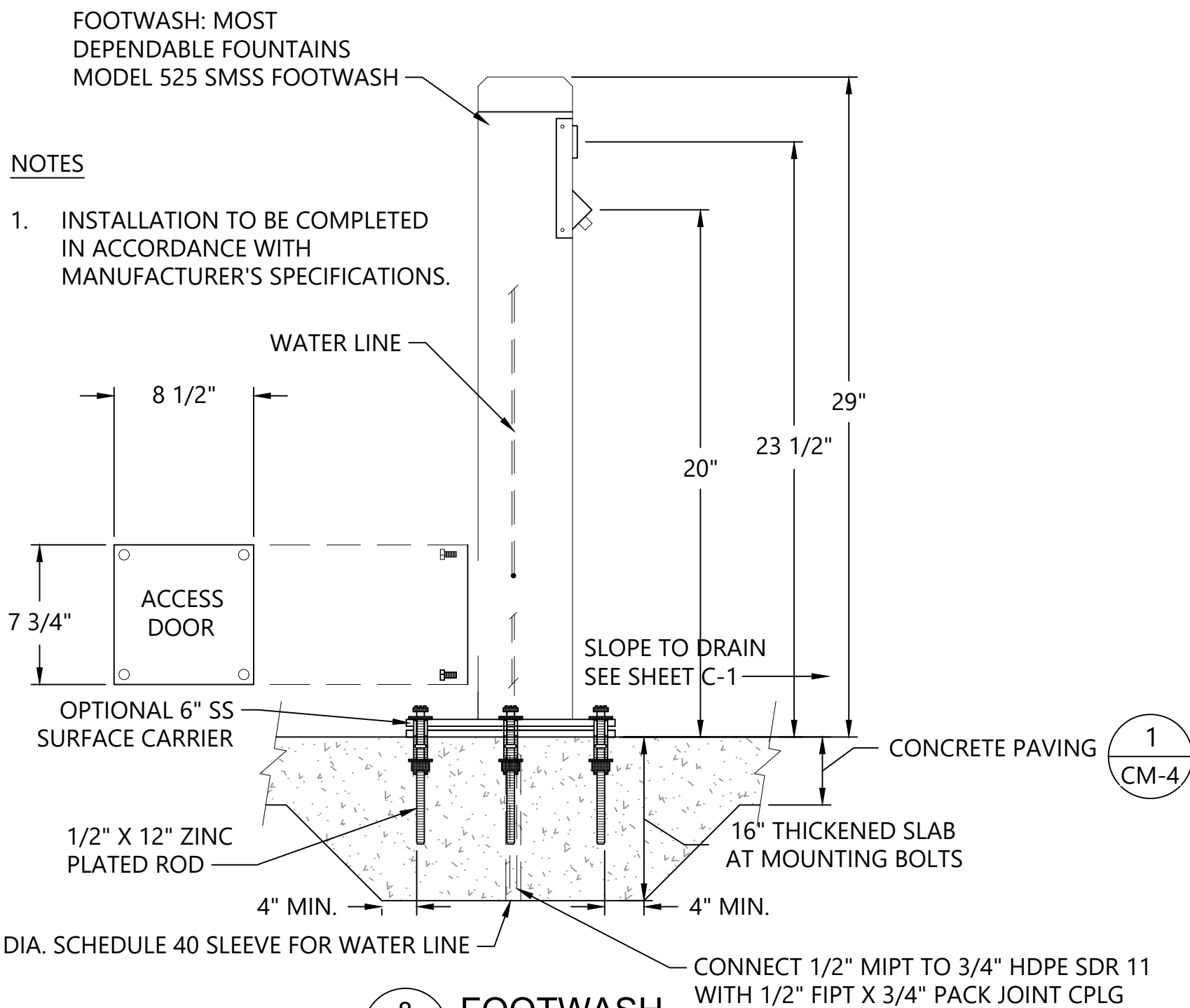
SECTION 5, TOWNSHIP 27 N., RANGE 4 E



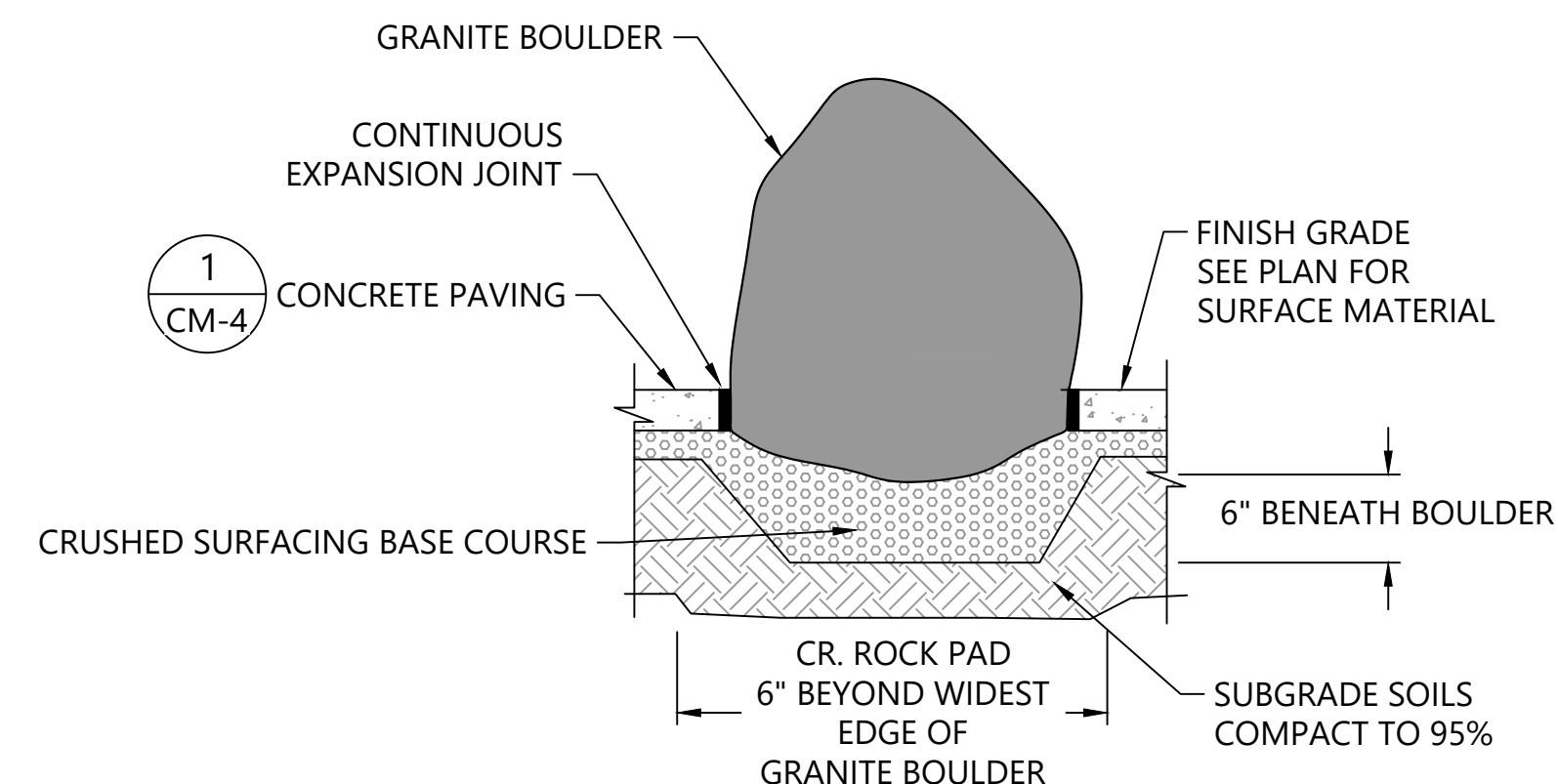
**6 TYPICAL ASPHALT PAVING - PATHWAY**  
SCALE: NTS  
NOTE: SEE DETAIL 2, DRAWING CU-4 FOR TYP. SHEET FLOW DISPERSION



**7 CRUSHED ROCK PATH**  
SCALE: NOT TO SCALE

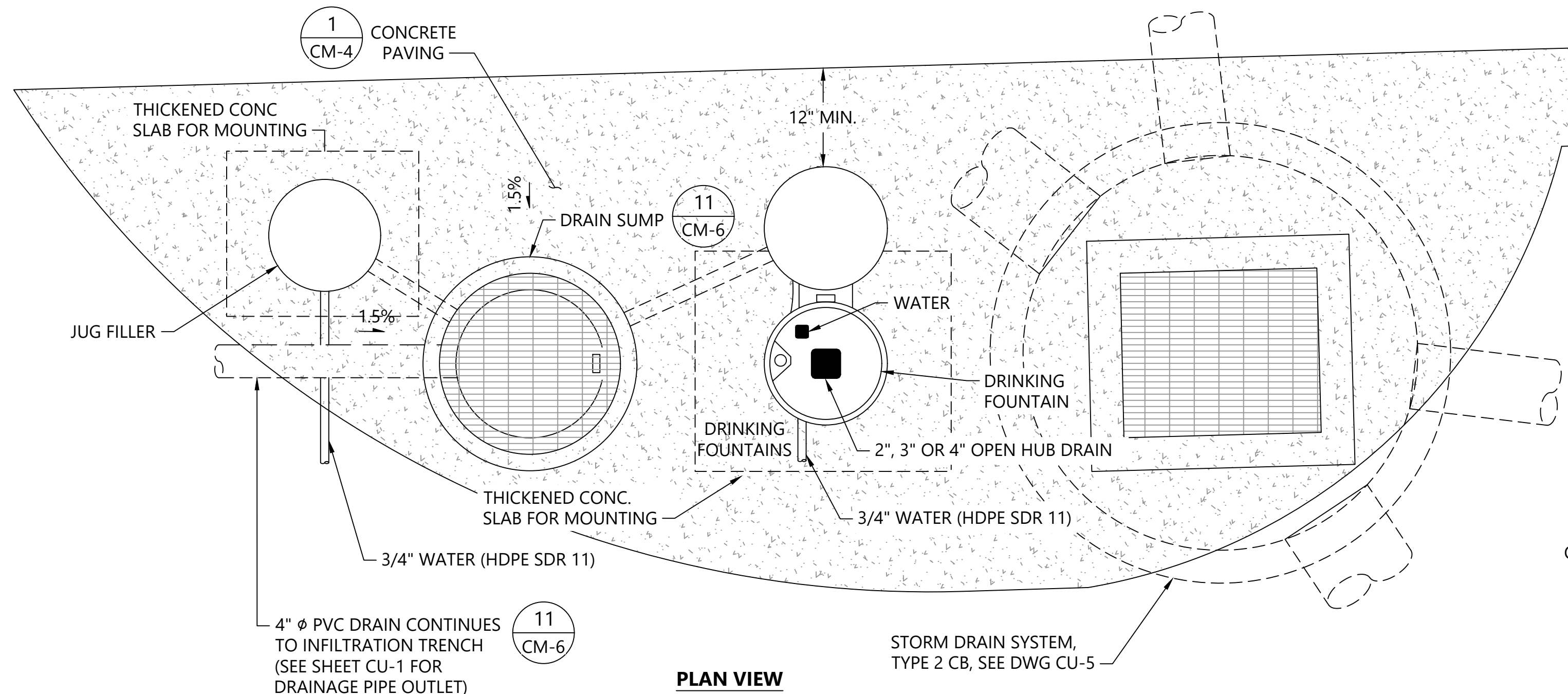


**8 FOOTWASH**  
SCALE: NTS

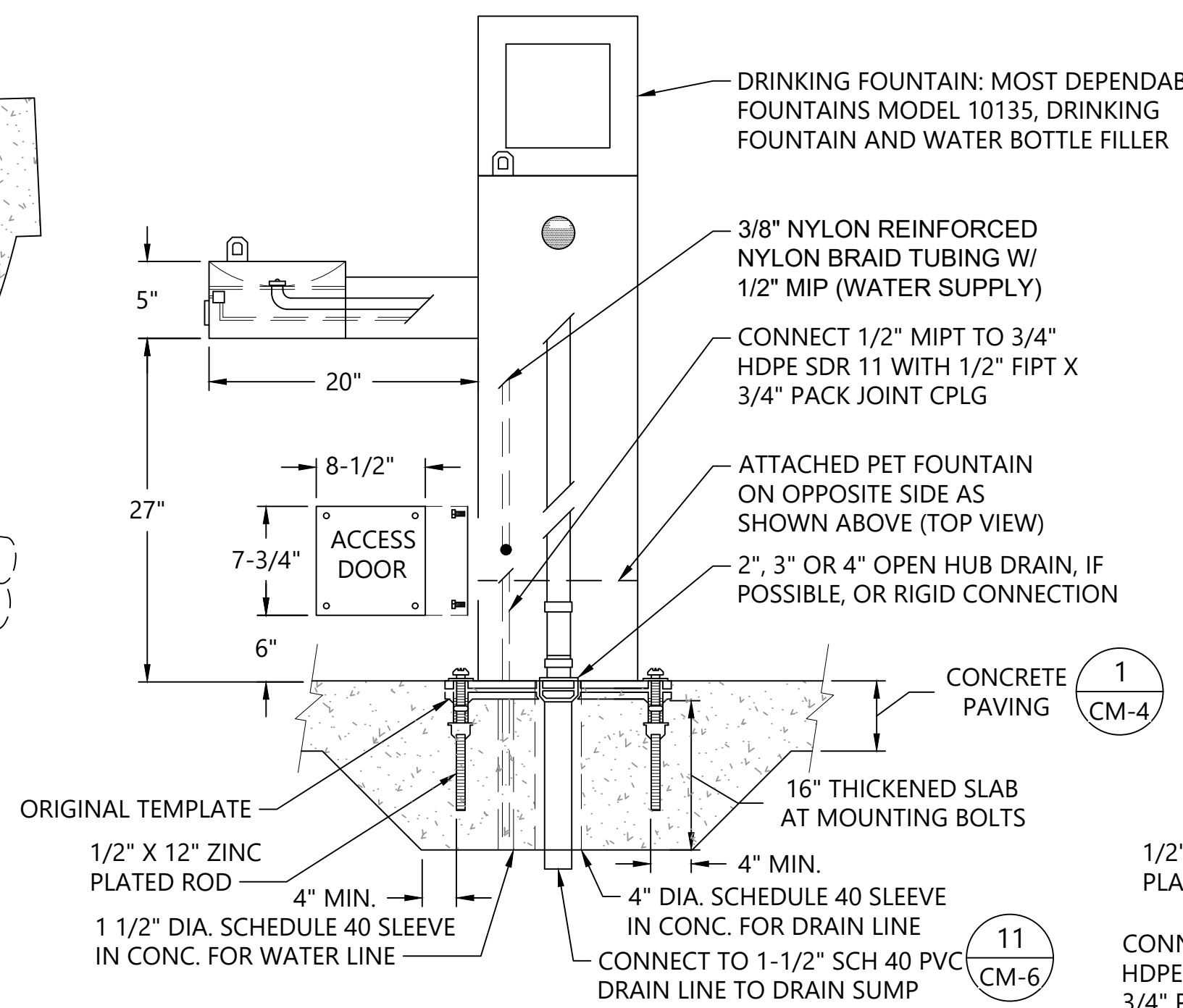


NOTE: INSTALL CRUSHED SURFACING TOP COURSE OR RECYCLED AC BASE FOR BOULDERS 4 CUBIC FEET AND LARGER. FOR BOULDERS UNDER 4 CUBIC FEET PLACE ON 95% COMPACTED SUBGRADE AND BURY IN 6-12" OF BEACH GRAVEL/RIVER ROCK.

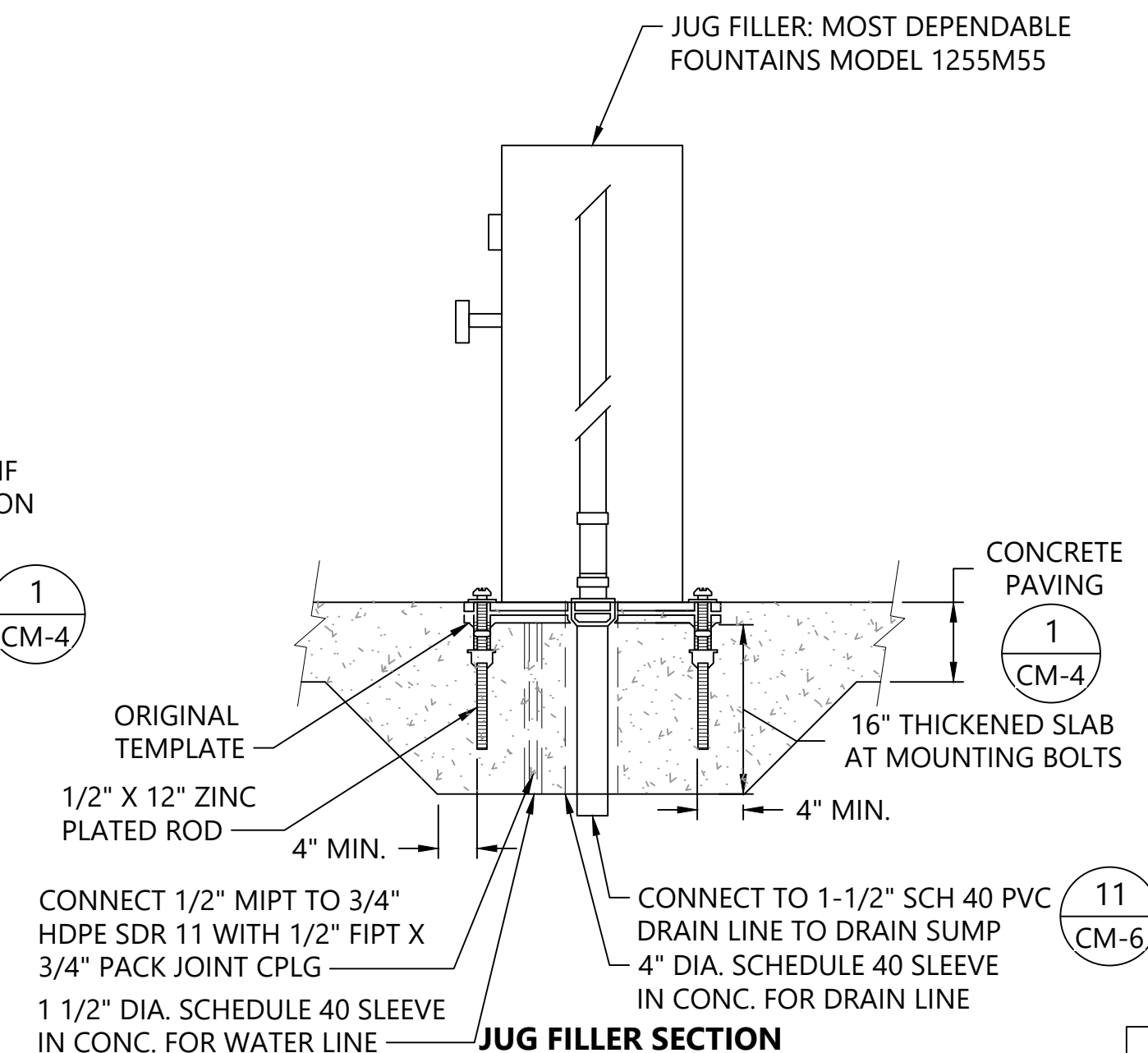
**9 LANDSCAPE BOULDER IN CONCRETE PAD**  
SCALE: NTS



**PLAN VIEW**



**DRINKING FOUNTAIN SECTION**



**JUG FILLER SECTION**

**10 DRINKING FOUNTAIN AND JUG FILLER**  
SCALE: NTS  
NOTES

1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
2. SHOWN WITH OPTIONAL PF AND 1010 SURFACE CARRIER.

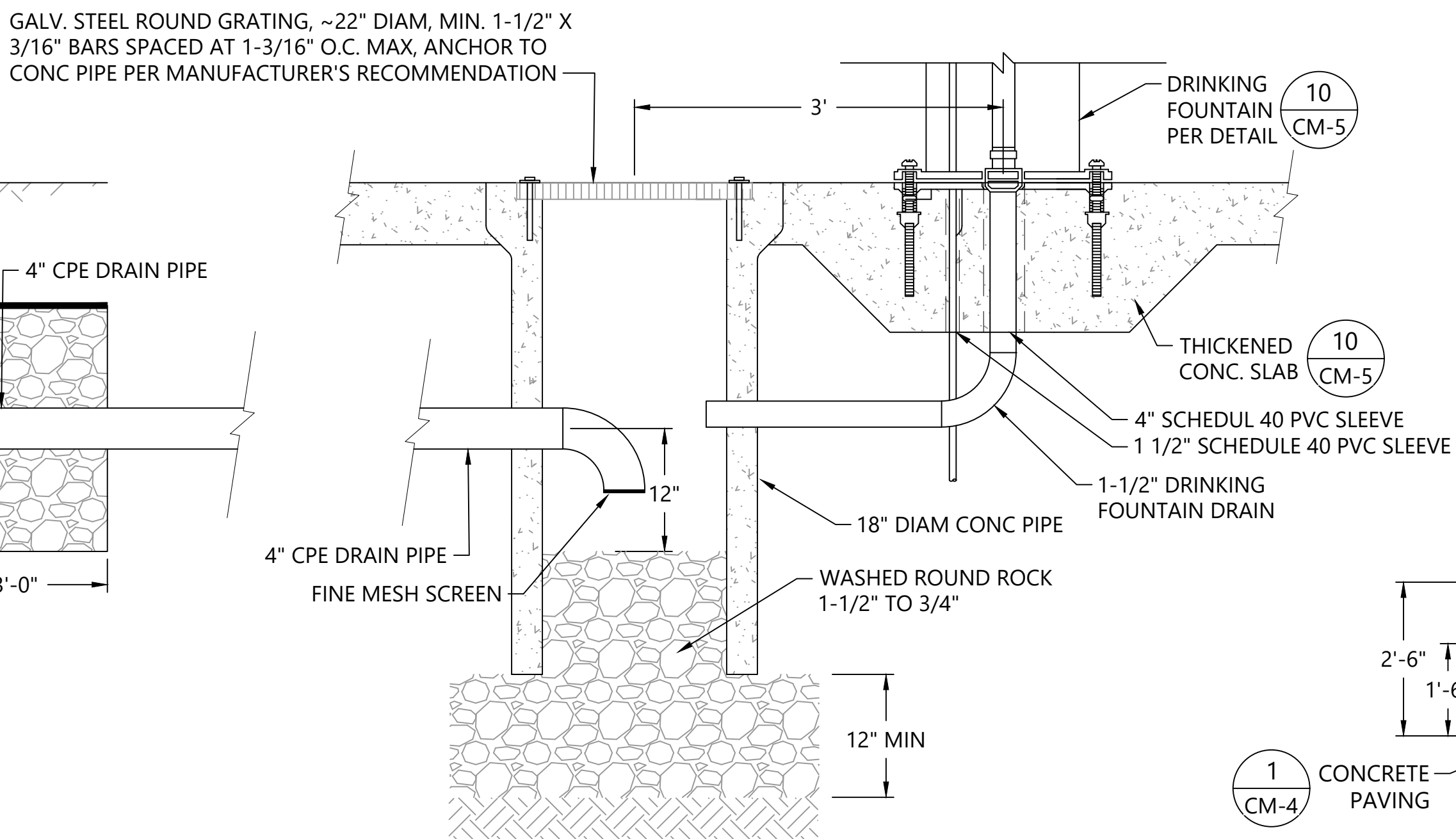
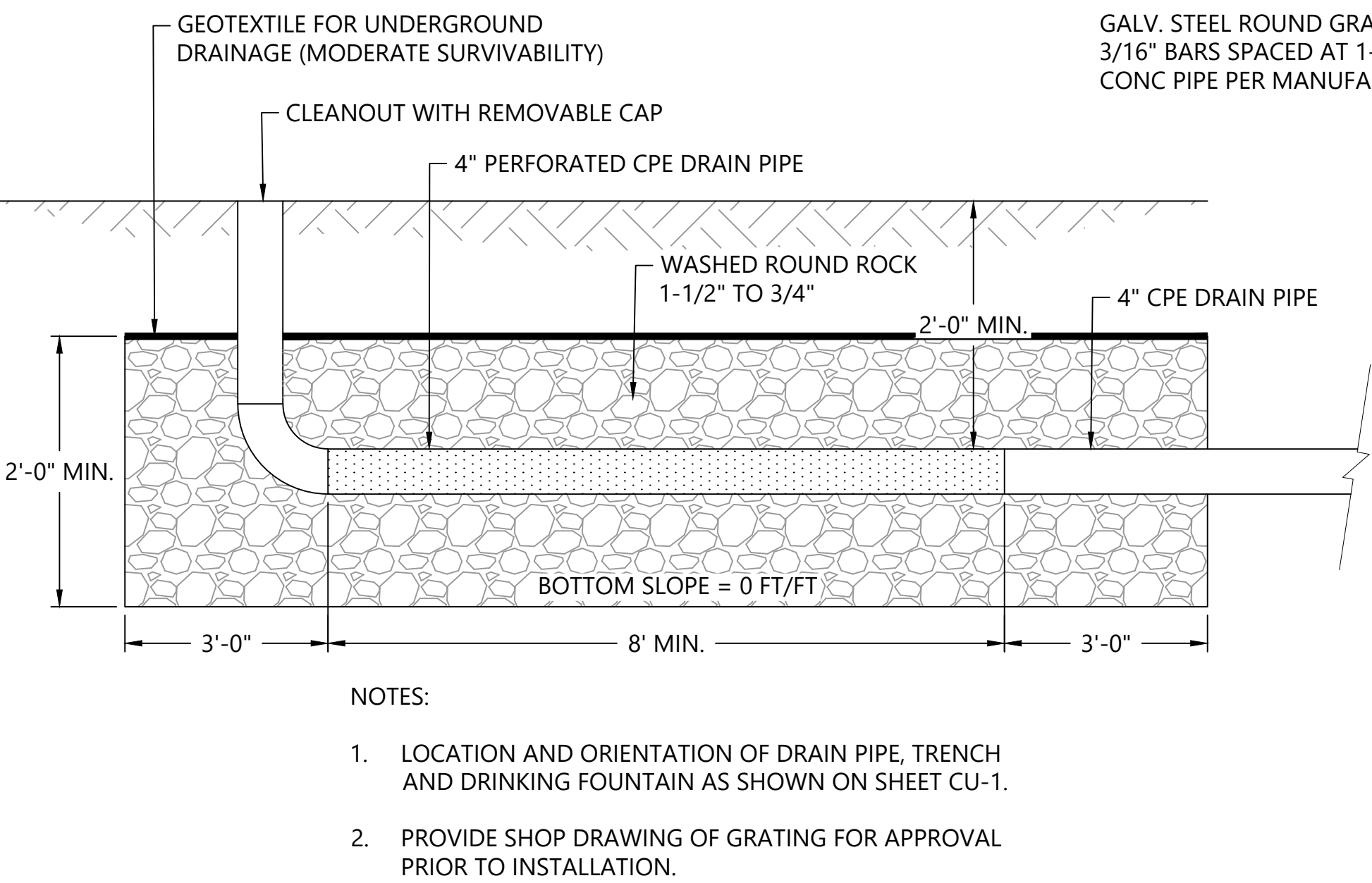
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PFN: 19-103913LDA

100% CONSTRUCTION DRAWINGS/BID SET

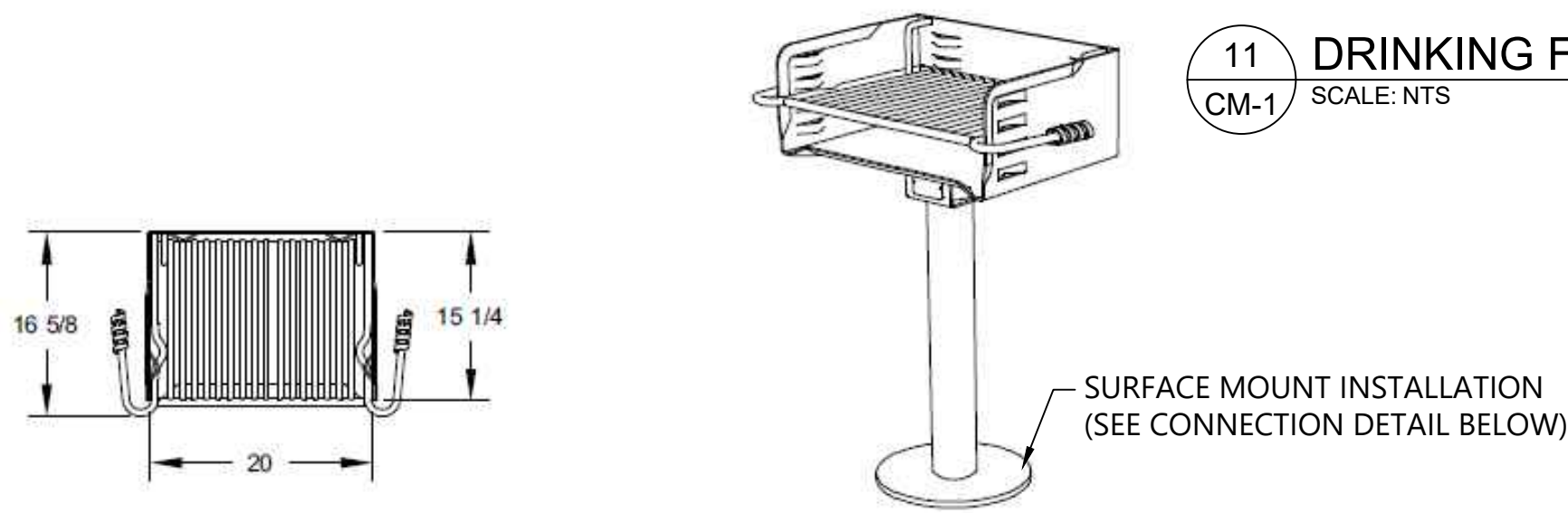
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REV	DATE	BY	APP'D	DESCRIPTION

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DRAWN BY: CH/TG  
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DATE: SEPTEMBER 2020

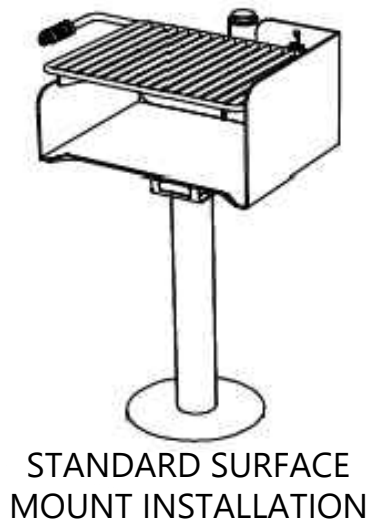
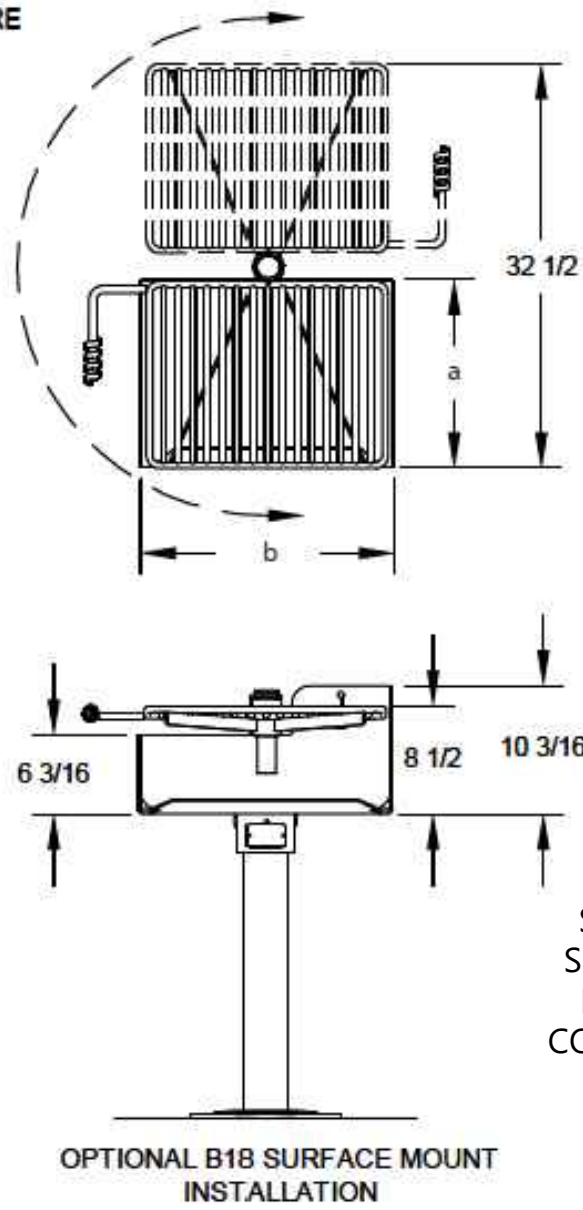




11 DRINKING FOUNTAIN DRAIN SUMP CROSS SECTION  
SCALE: NTS



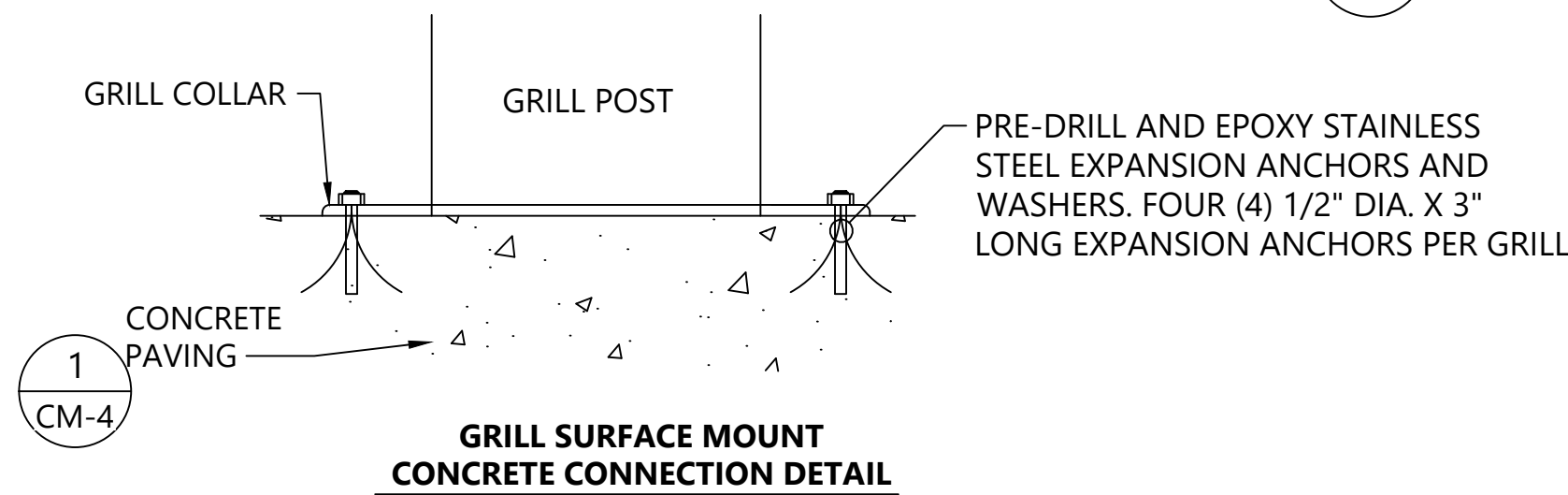
GRATE ROTATES 180° FROM OVER FIRE WITH 5 LBS. OF FORCE. HANDLE IS NEVER OVER FIRE



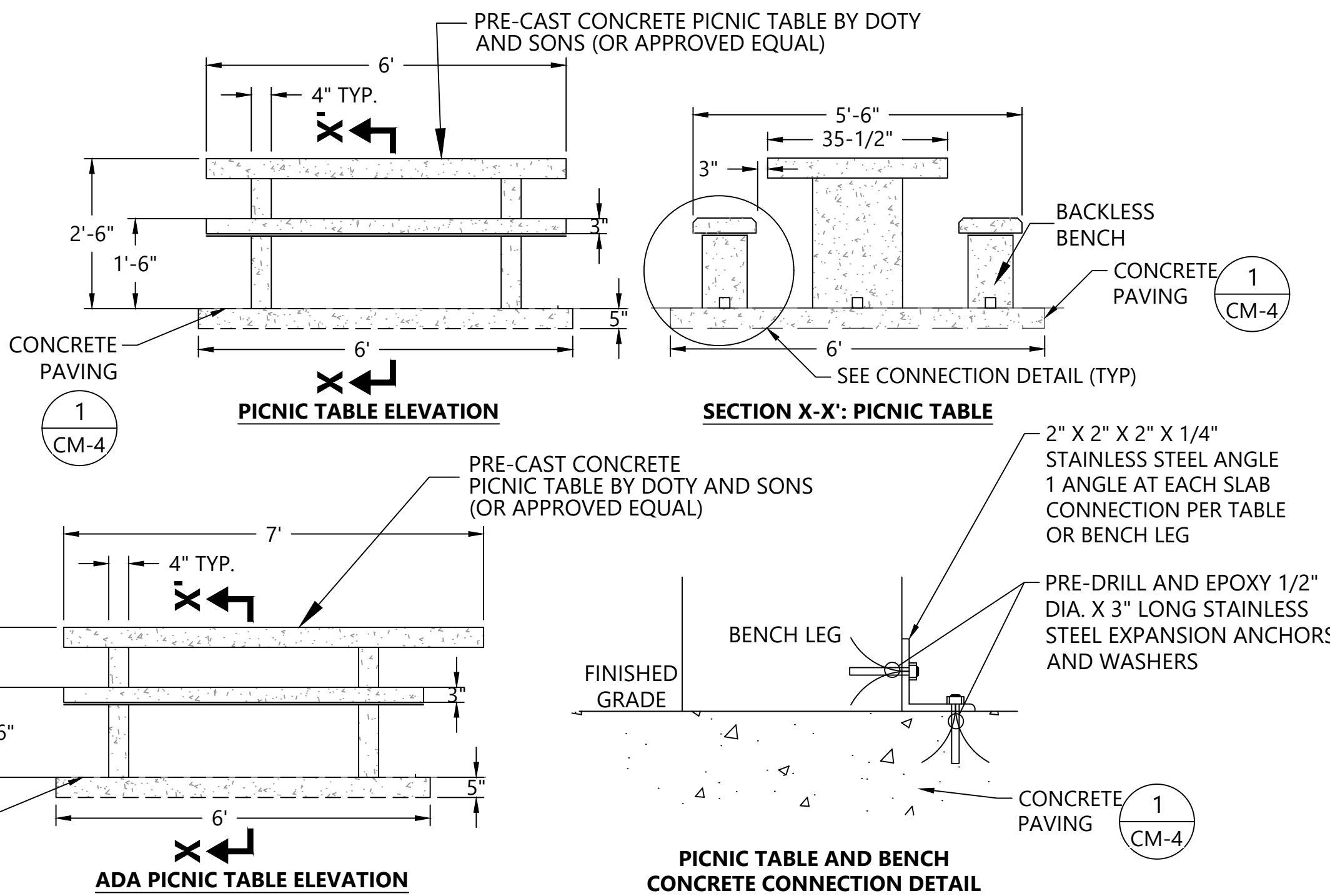
SEE DETAIL 13, THIS SHEET FOR SURFACE MOUNT CONCRETE CONNECTION DETAIL

MODEL NUMBER	DIMENSION	
	a	b
ASW-20	15-1/8	19-3/8
ASW-24	15-1/8	23-3/8

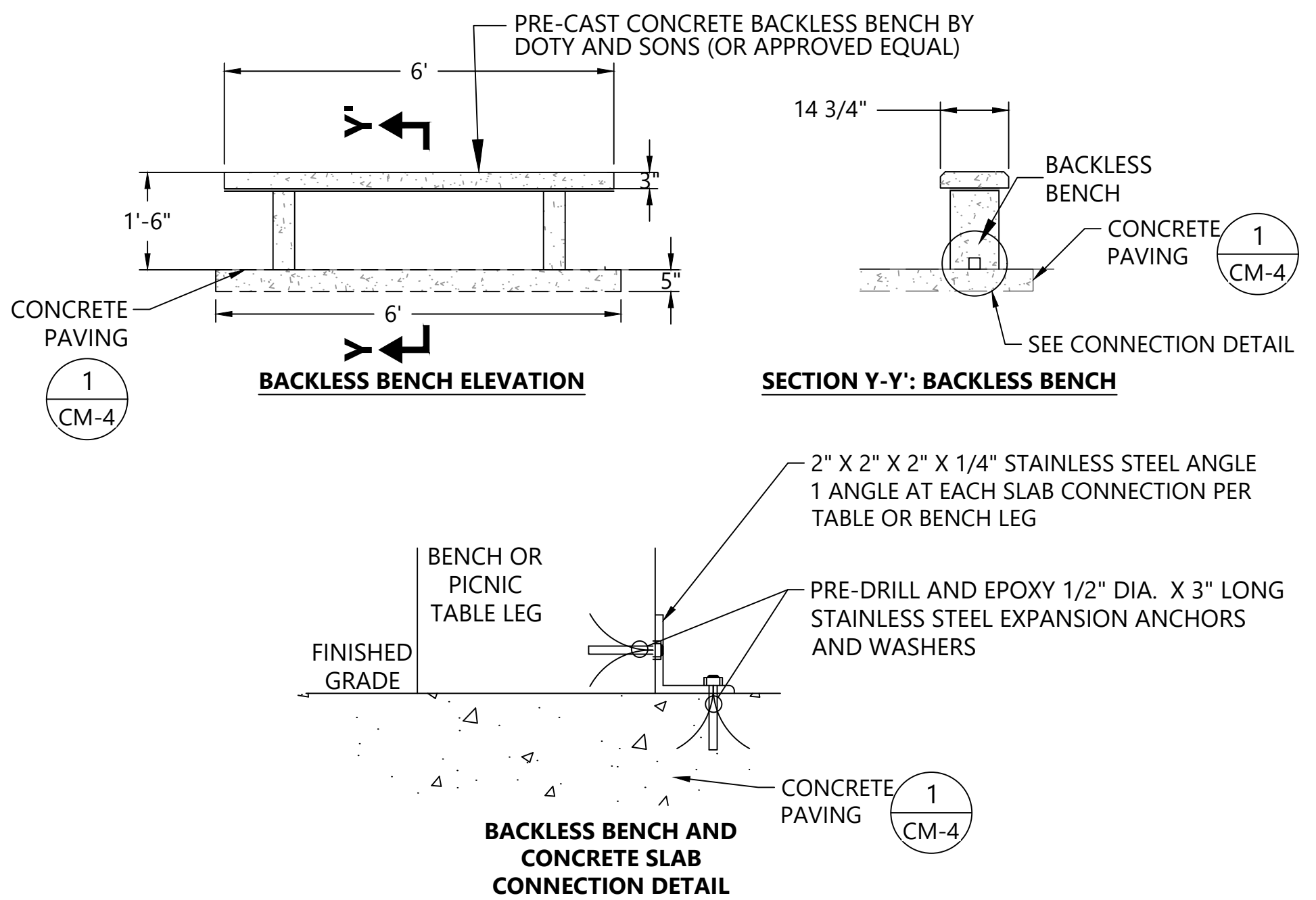
14 ADA ACCESSIBLE GRILL - SURFACE MOUNT  
SCALE: NOT TO SCALE  
SOURCE: DETAIL FROM RJTHOMAS MFG. CO., INC.



13 GRILL - SURFACE MOUNT  
SCALE: NOT TO SCALE  
SOURCE: DETAIL FROM RJTHOMAS MFG. CO., INC.



12 PICNIC TABLE AND BACKLESS BENCH  
SCALE: NOT TO SCALE



15 BACKLESS BENCH ON CONC PAD  
SCALE: NOT TO SCALE

APPROVED FOR CONSTRUCTION  
BY: *[Signature]*  
R/W PERMIT NO. NA  
DATE 10/29/2020  
PFN: 19-103913LDA

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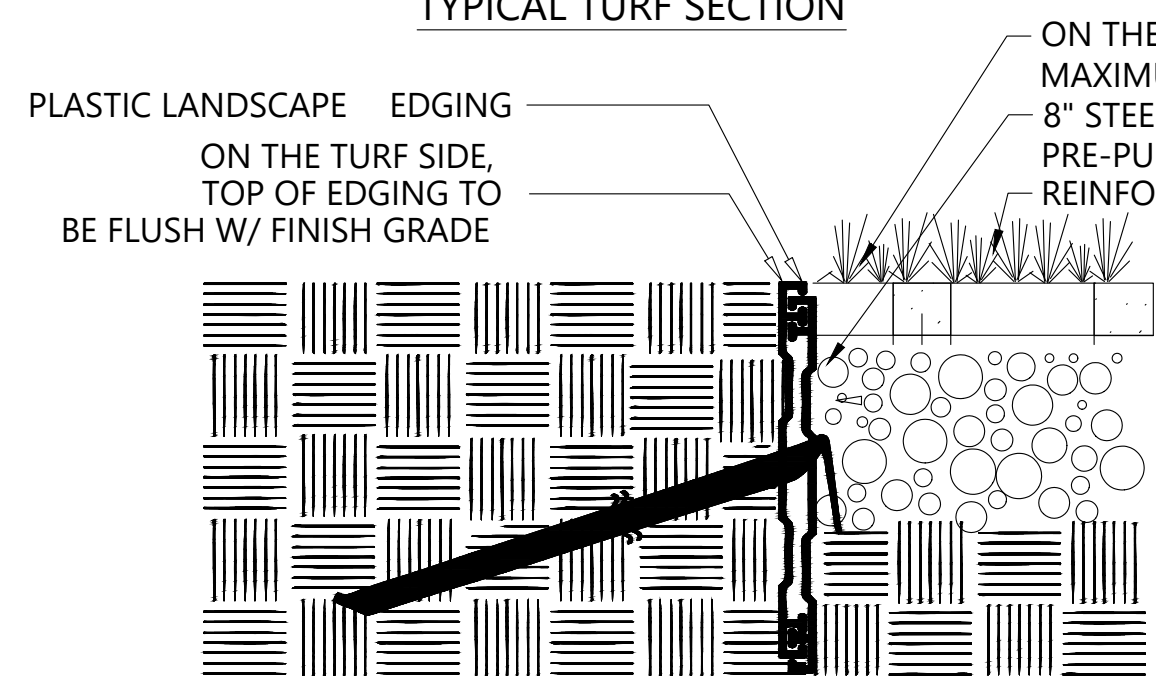
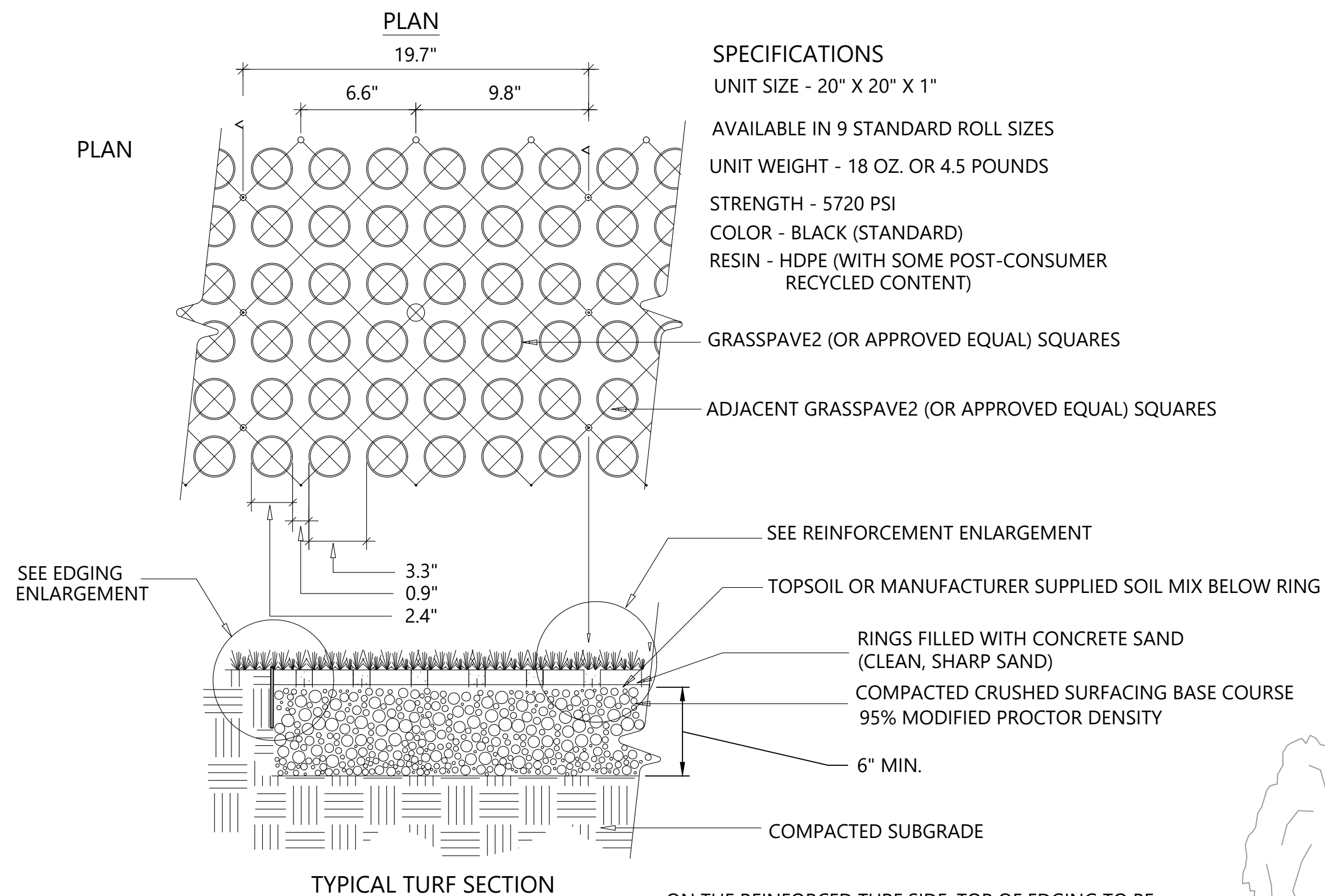
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REV	DATE	BY	APP'D	DESCRIPTION	

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SCALE: AS NOTED  
DATE: SEPTEMBER 2020



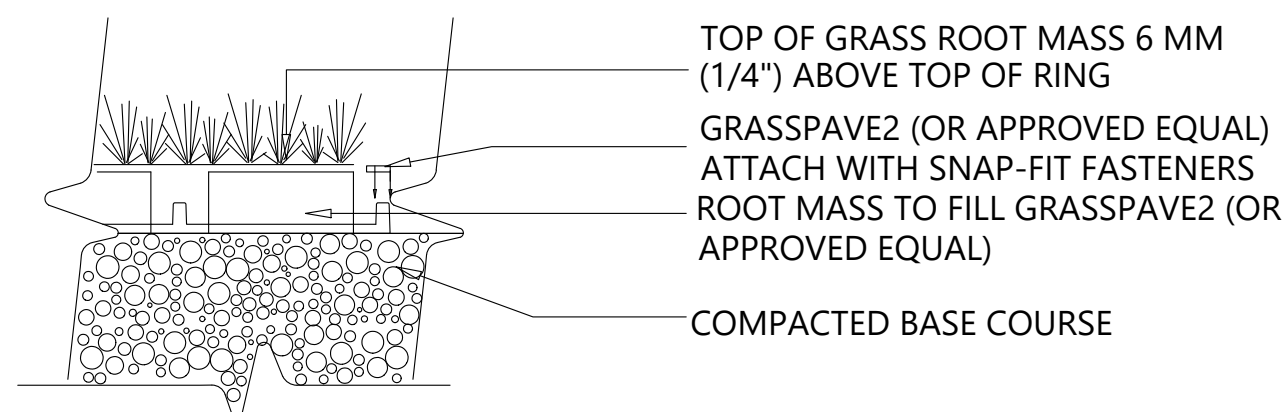
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Sep 15, 2020 9:02am chiewett

SECTION 5, TOWNSHIP 27 N., RANGE 4 E



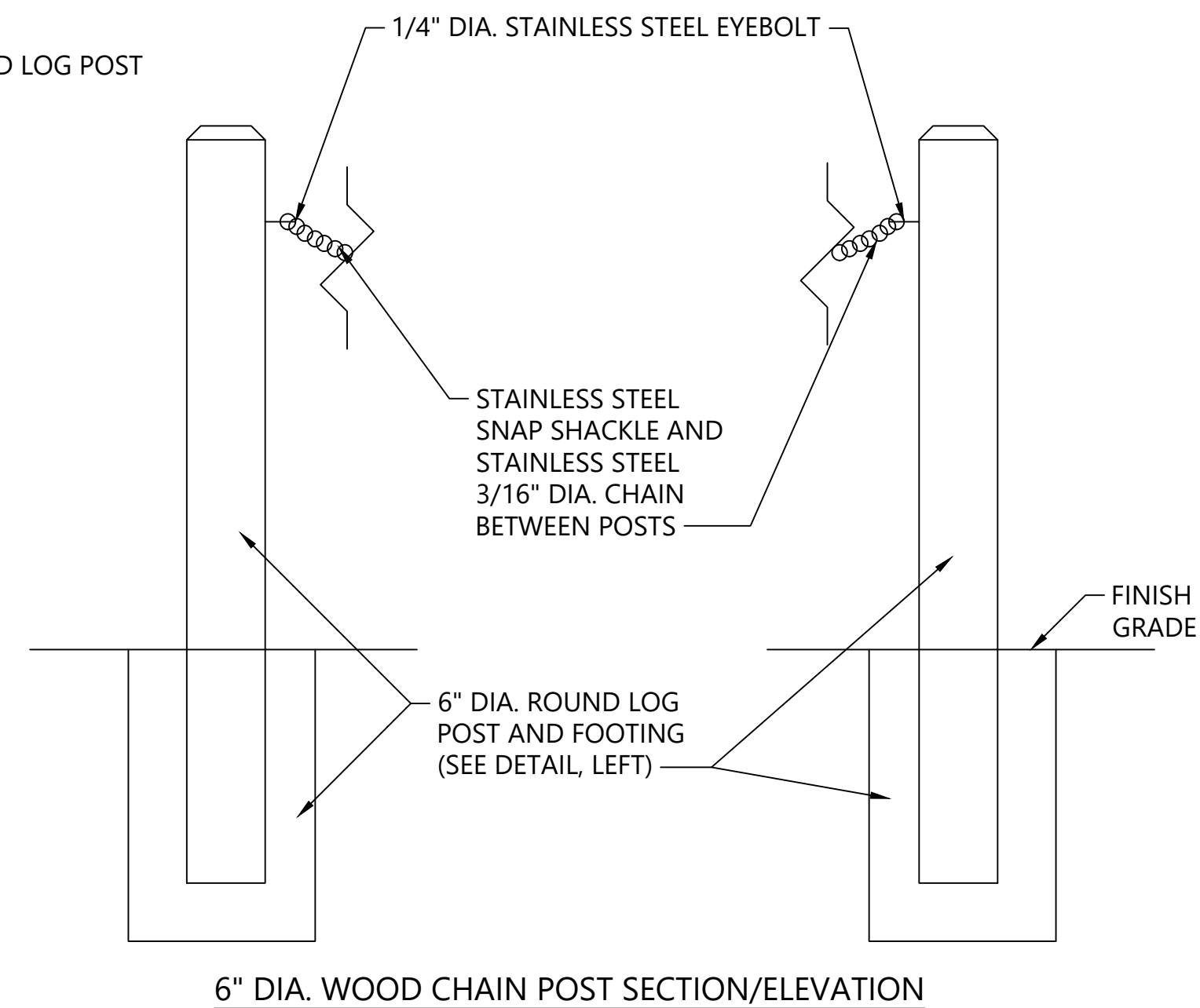
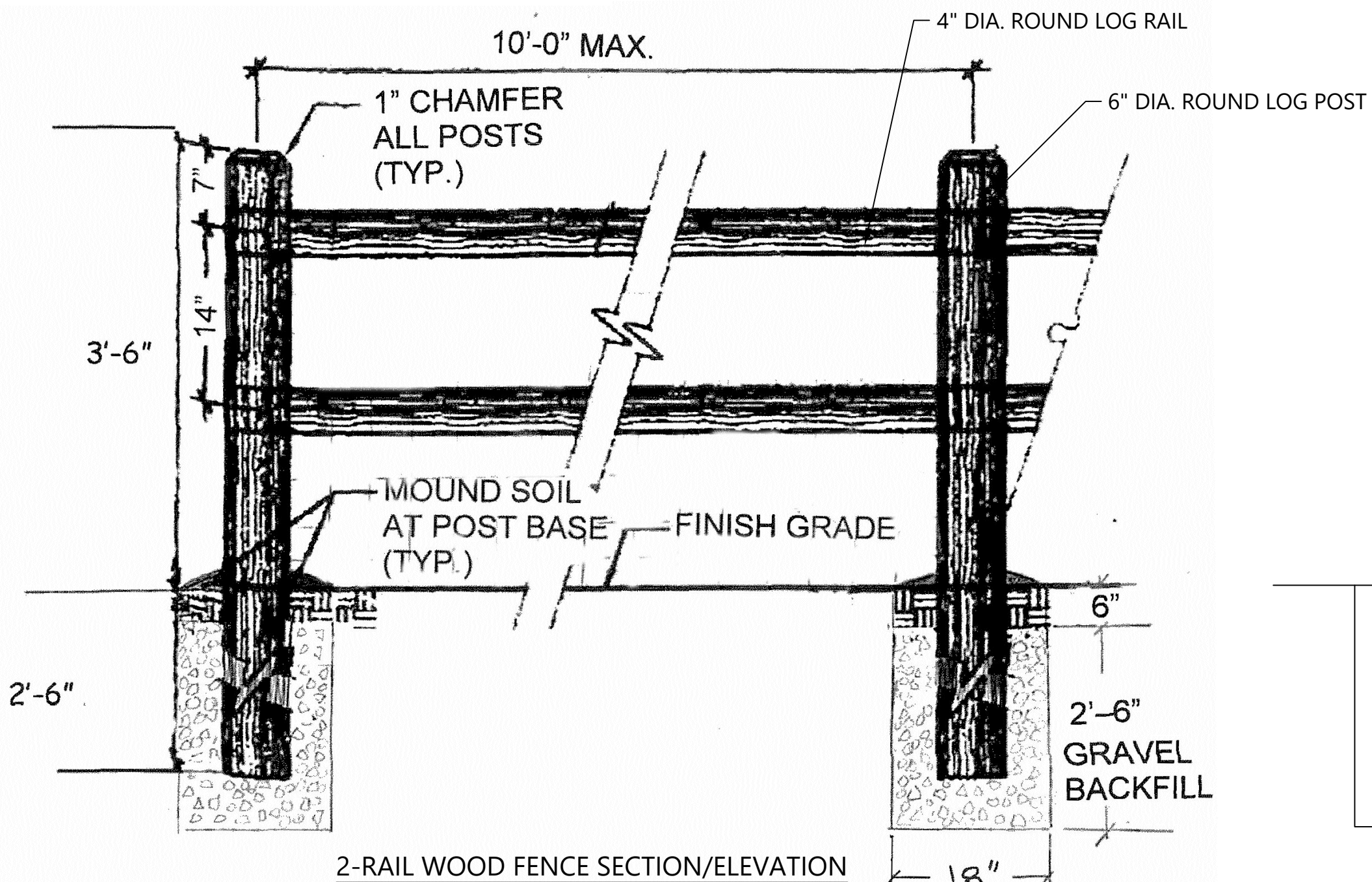
- EDGING NOTES:**
1. 20' SECTIONS TO UTILIZE (5) 8" STEEL STAKES.
  2. MINIMUM WALL THICKNESS OF 0.65".
  3. COMPACT GRADES ADJACENT TO EDGING TO AVOID SETTING.
  4. CONNECTION BETWEEN SECTION TO UTILIZE MANUFACTURER'S SLIDING CONNECTION SYSTEM.
  5. CORNERS - BEND EDGING AND FORM A CONTINUOUS CORNER.

**EDGING ENLARGEMENT**

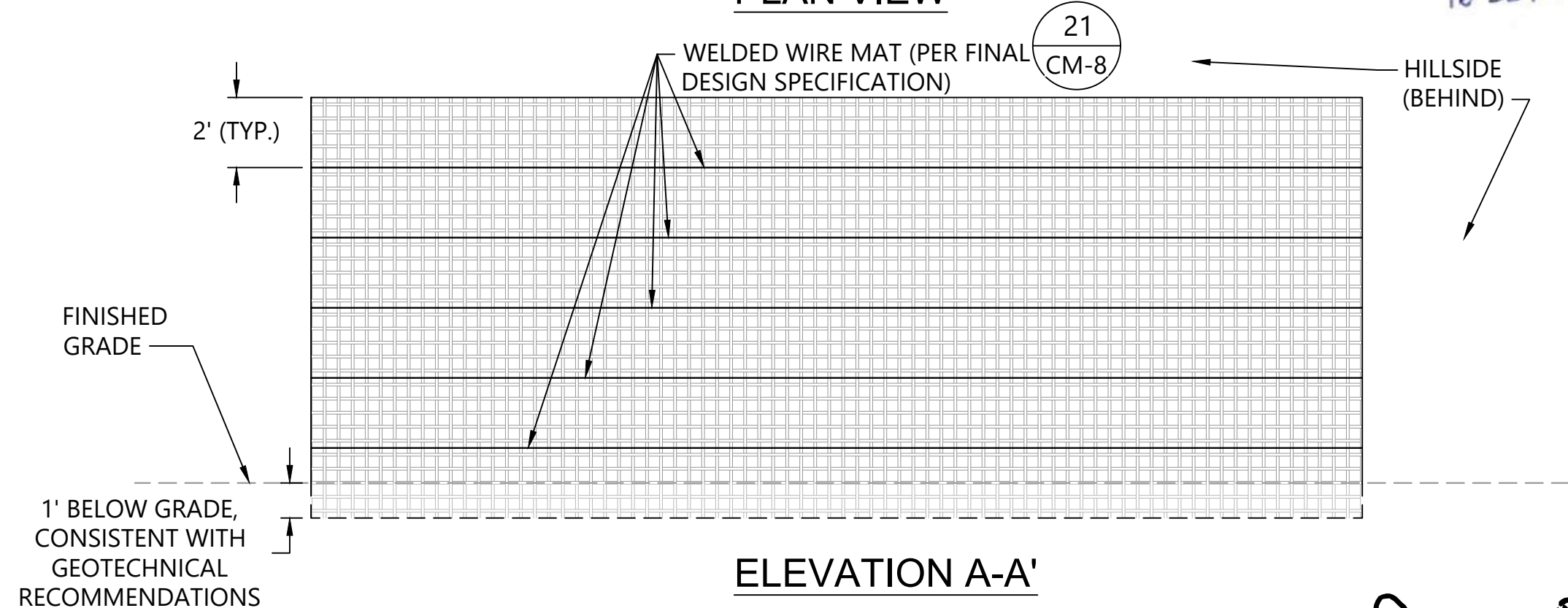
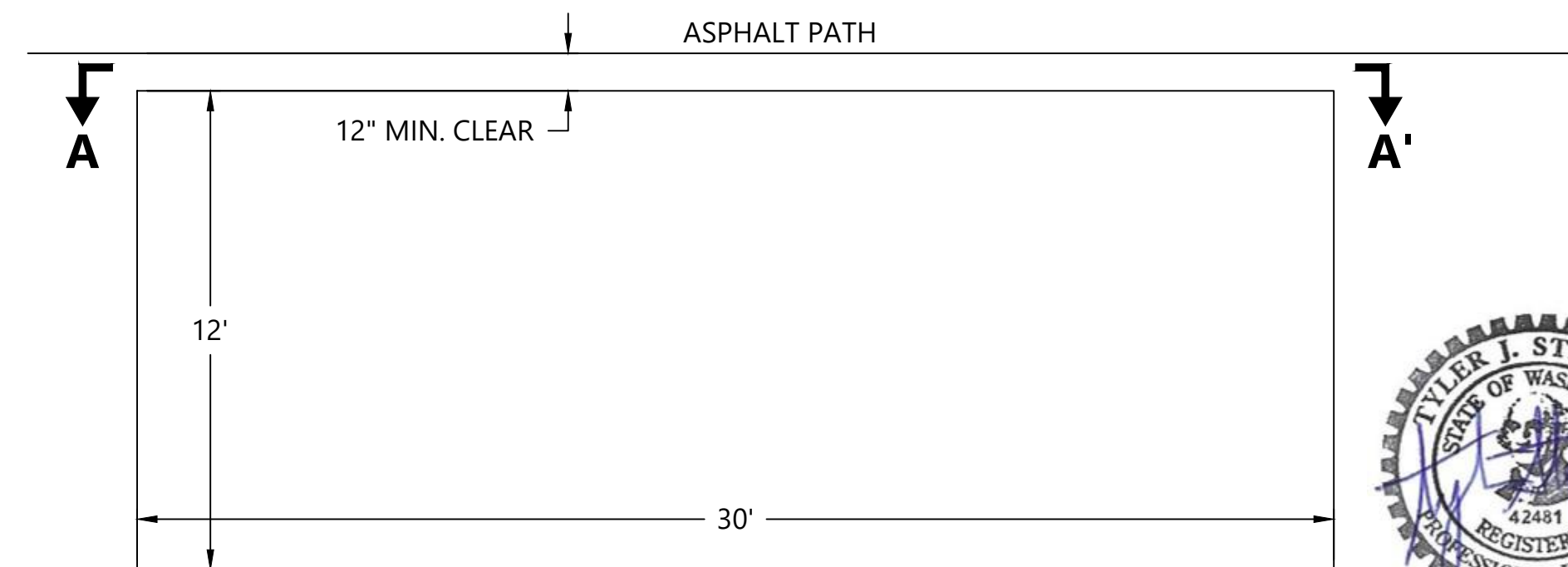


**TURF REINFORCEMENT ENLARGEMENT**

**16 TYPICAL REINFORCED TURF DETAILS**  
CM-2 SCALE: NOT TO SCALE



**17 DOWELED 2-RAIL WOOD FENCE AND CHAIN POST**  
CM-2 SCALE: NOT TO SCALE



**20 LANDSLIDE PROTECTIVE BARRIER**  
CM-8 SCALE: 1"=4'  
SOURCE: DETAIL FROM SHANNON & WILSON, INC.  
NOTES: SEE SHEET CM-8 FOR VEGETATIVE WALL FACE DETAILS

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**MEADOWDALE BEACH PARK  
AND ESTUARY DESIGN**  
PFN 19-103913LDA

**CONSTRUCTION MATERIAL DETAILS (4 OF 6)**

**CM-7**

SHEET # 32 OF 81



STEP 1

PLACE THE FIRST COURSE OF SOIL REINFORCEMENT MATS ON PREPARED FOUNDATION

STEP 2

PLACE THE BACKING MAT AGAINST THE INSIDE FACE OF THE SOIL REINFORCEMENT MAT. CLIP THE SECOND-TO-TOP TRANSVERSE WIRE ON THE BACKING MAT TO THE TOP TRANSVERSE WIRE ON THE SOIL REINFORCEMENT MAT.

INSTALL CONTINUOUS HARDWARE CLOTH, HOG-RING TO THE TOP WIRE ON THE BACKING MAT.

INSTALL CONTINUOUS FILTER FABRIC AS SHOWN

PLACE AND COMPACT BACKFILL

STEP 3

BRING THE FILTER FABRIC OVER THE FRONT AND TOP OF THE BACKFILL AS SHOWN. PLACE THE SOIL IN THE FACE OF THE WALL. LEAVE A VOID AS SHOWN.

PLACE THE SECOND COURSE OF SOIL REINFORCEMENT MATS WITH THE BASE LONGITUDINAL WIRES RESTING ON THE TOP TRANSVERSE WIRE OF THE BACKING MAT BELOW. SLIDE THE SOIL REINFORCEMENT MAT INTO ALIGNMENT.

STEP 4

HOOK THE BOTTOM TRANSVERSE WIRE OF THE BACKING MAT OVER THE VERTICAL PRONGS ON THE LOWER MAT. ROTATE THE BACKING MAT TO VERTICAL, PLACE THE HARDWARE CLOTH AND CLIP THE SECOND-TO-TOP TRANSVERSE WIRE ON THE BACKING MAT TO THE TOP WIRE ON THE SOIL REINFORCEMENT MAT.

STEP 5

INSTALL THE FILTER FABRIC AS IN STEPS 2 AND 3. PLACE AND COMPACT THE BACKFILL AND ROCK TO THE BASE ELEVATION OF THE NEXT MAT. REPEAT STEPS 2 THROUGH 5 TO THE TOP LIFT.

TEMPORARY CONSTRUCTION STAKE, OPTIONAL

FILL THE VOID IN THE LIFT BELOW

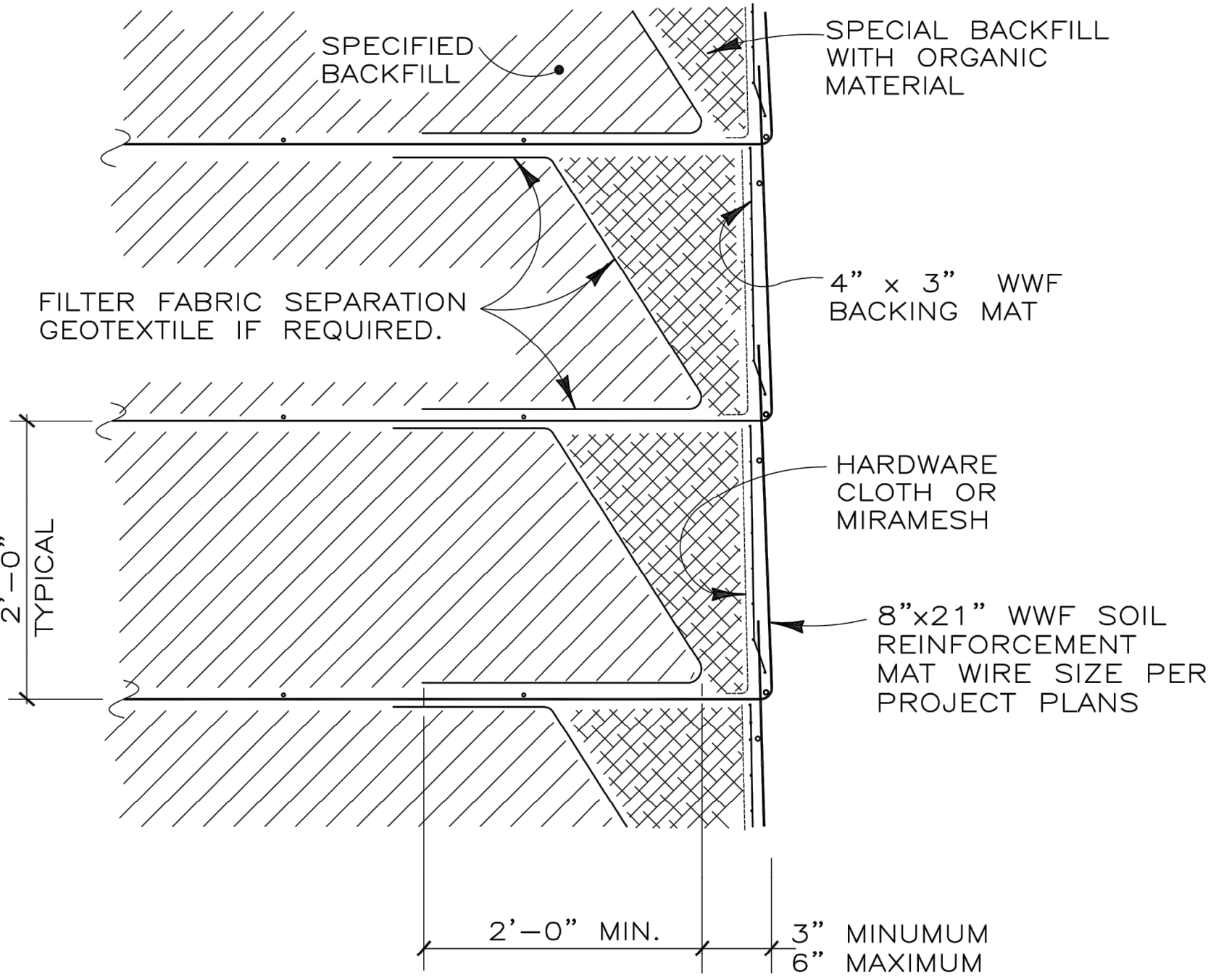
PLACE AND COMPACT FILL FOR TOE BURY

STEP 6: TOP LIFT

PLACE THE TOP LIFT PRONGLESS MAT, BACKING MAT AND FILTER FABRIC. PLACE AND COMPACT BACKFILL AND ROCK IN THE TOP LIFT. HOOK THE CAP OVER THE MIDDLE TRANSVERSE WIRE ON THE PRONGLESS MAT, AND ROTATE INTO PLACE. PLACE AND COMPACT COVER OVER TOP MAT TO 1'-6" MINIMUM DEPTH.

CONSTRUCTION SEQUENCE

NOT TO SCALE



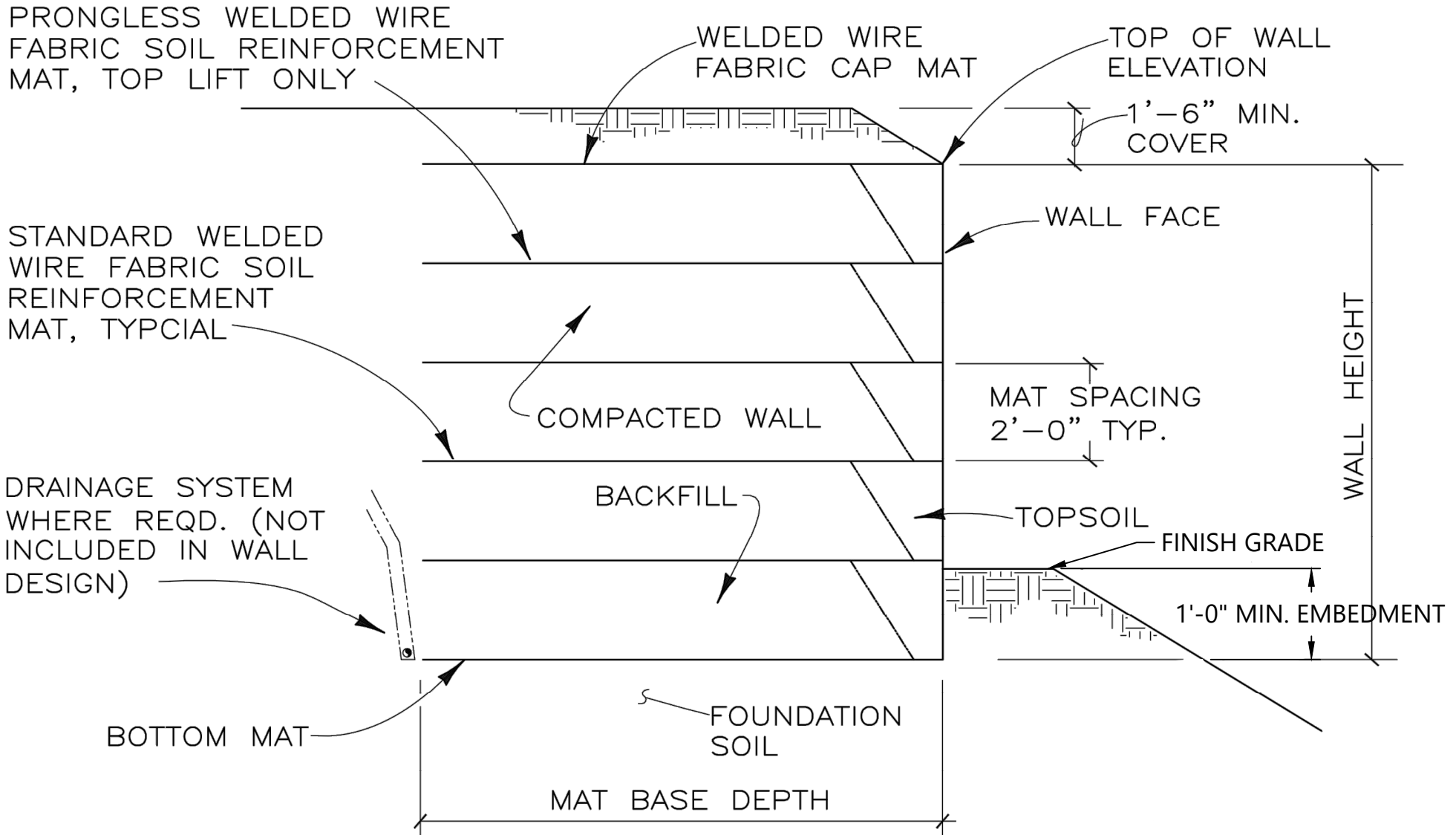
SECTION

21  
CM-1

LANDSLIDE BARRIER VEGETATIVE WALL FACE DETAILS

SCALE: NOT TO SCALE

SOURCE: DETAIL FROM HILFIKER RETAINING WALLS.



TYPICAL SECTION

NOT TO SCALE

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DATE 10/29/2020  
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APPROVED BY: PH  
SCALE: AS NOTED  
DATE: SEPTEMBER 2020

MEADOWDALE BEACH PARK  
AND ESTUARY DESIGN  
PFN 19-103913LDA

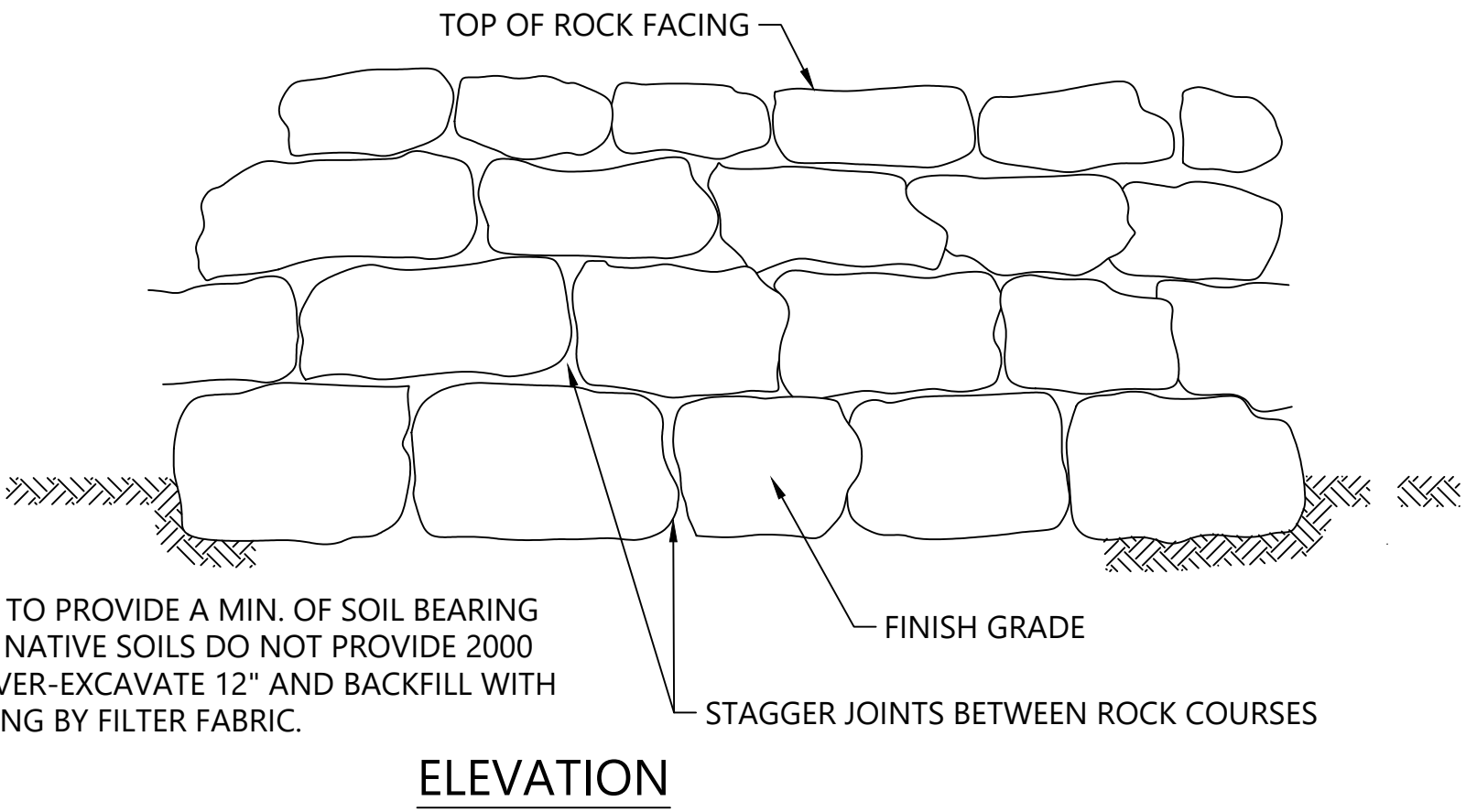
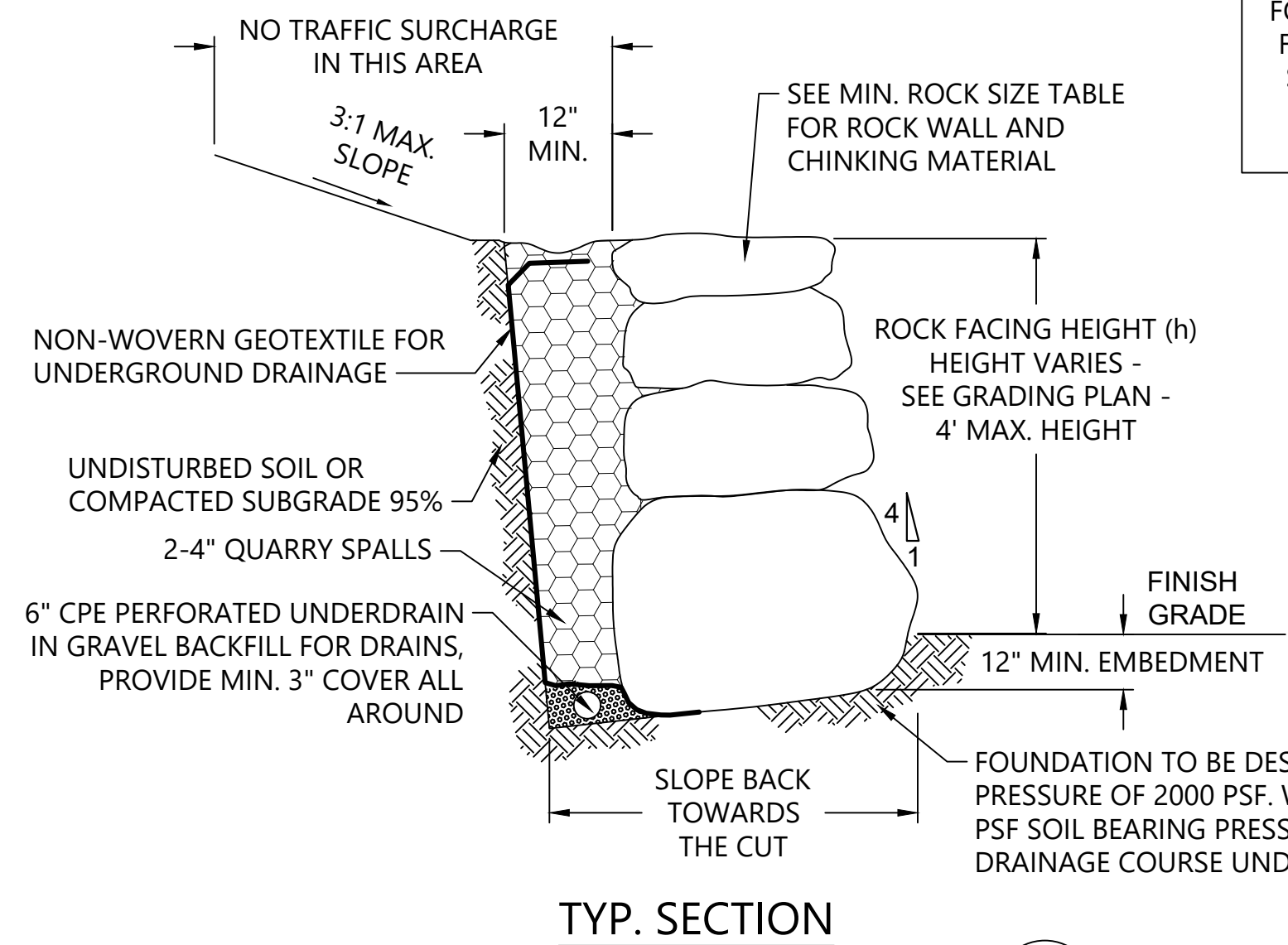
CONSTRUCTION MATERIAL DETAILS (5 OF 6)

CM-8

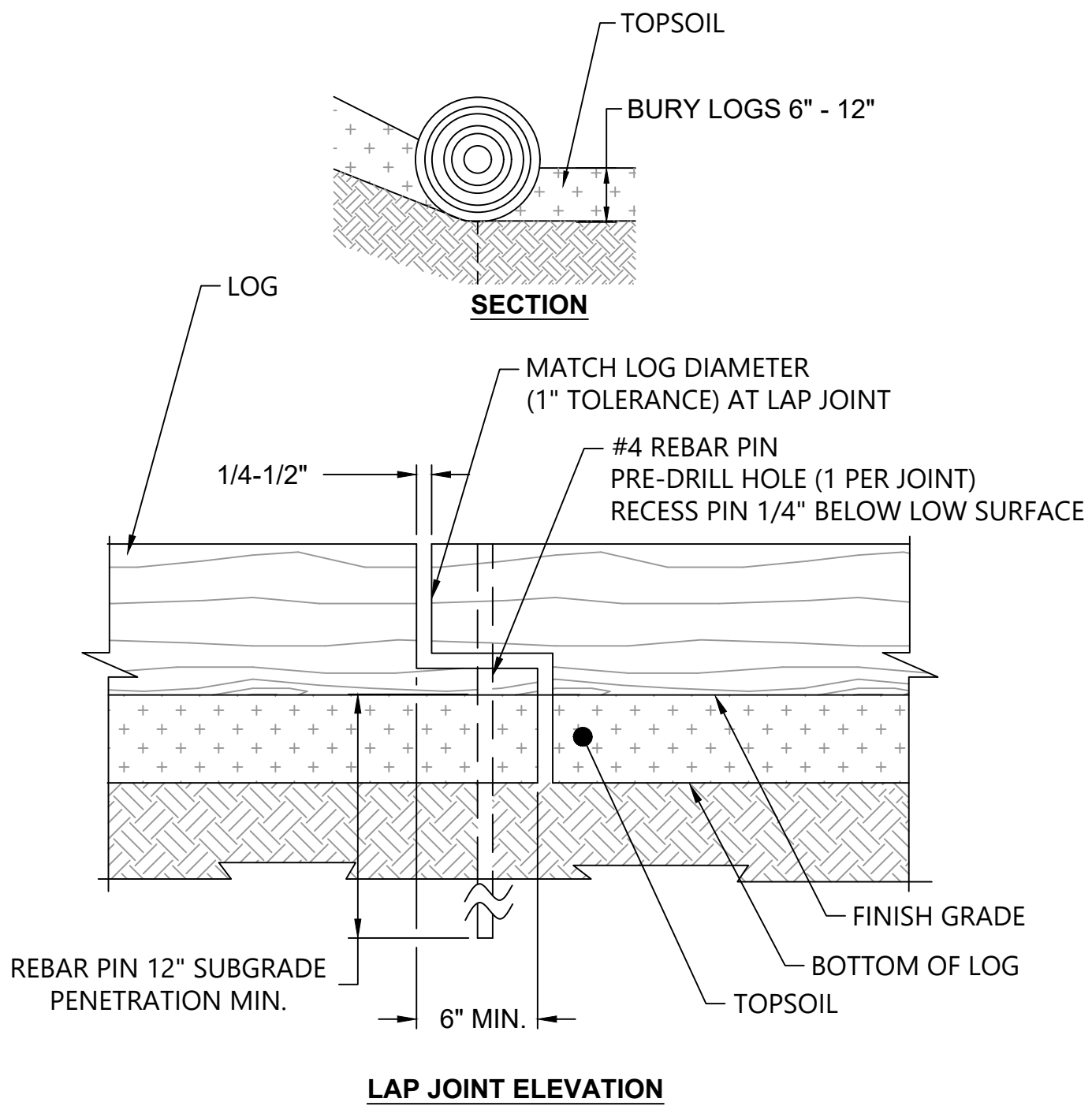
SHEET # 33 OF 81



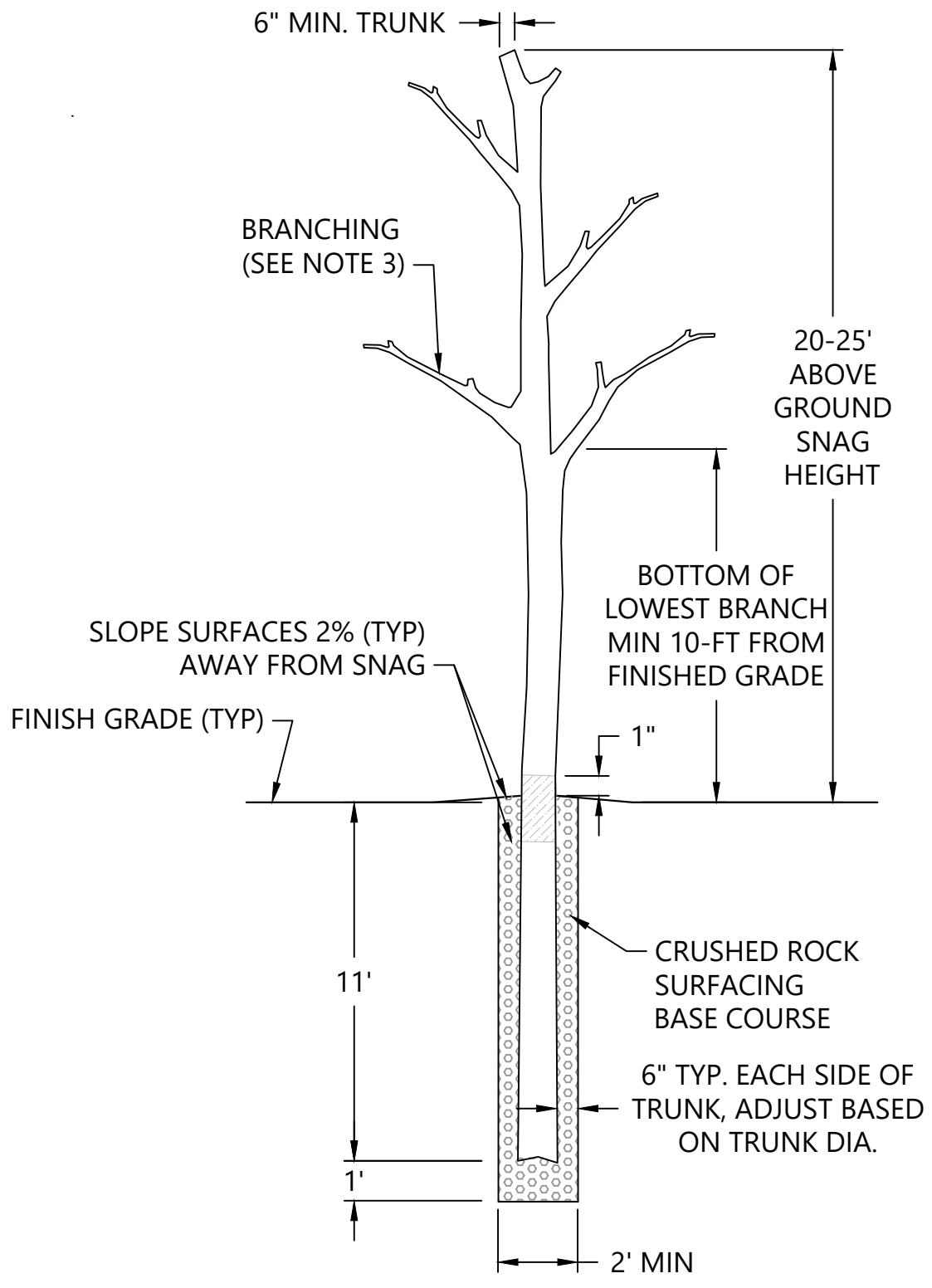
MINIMUM ROCK SIZE TABLE			
(h)	(d)	SIZE(BASE)	SIZE(TOP)
2 FEET	12 INCHES	2-MAN	1-MAN
4 FEET	12 INCHES	3-MAN	2-MAN
ROCK FOR ROCK WALL SIZES ARE APPROXIMATE AS FOLLOWS:			
ROCK SIZE)	ROCK WEIGHT (LBS.)	AVERAGE DIMENSION (IN.)	
ONE MAN	50 - 200	12 - 18	
TWO MAN	200 - 700	18 - 28	
THREE MAN	700 - 2,000	28 - 36	
FOUR MAN	2,000 - 4,000	36 - 48	
FIVE MAN	4,000 - 6,000	48 - 54	
SIX MAN	6,000 - 8,000	54 - 60	
NOTE: FROM WSDOT STANDARD SPECIFICATIONS 2006.			



22 ROCK FACING DETAIL  
SCALE: 1"=1'  
NOTE: SEE DRAWINGS D-1, D-2, AND D-3 AND SPECIFICATIONS FOR ROCK SALVAGE LOCATIONS

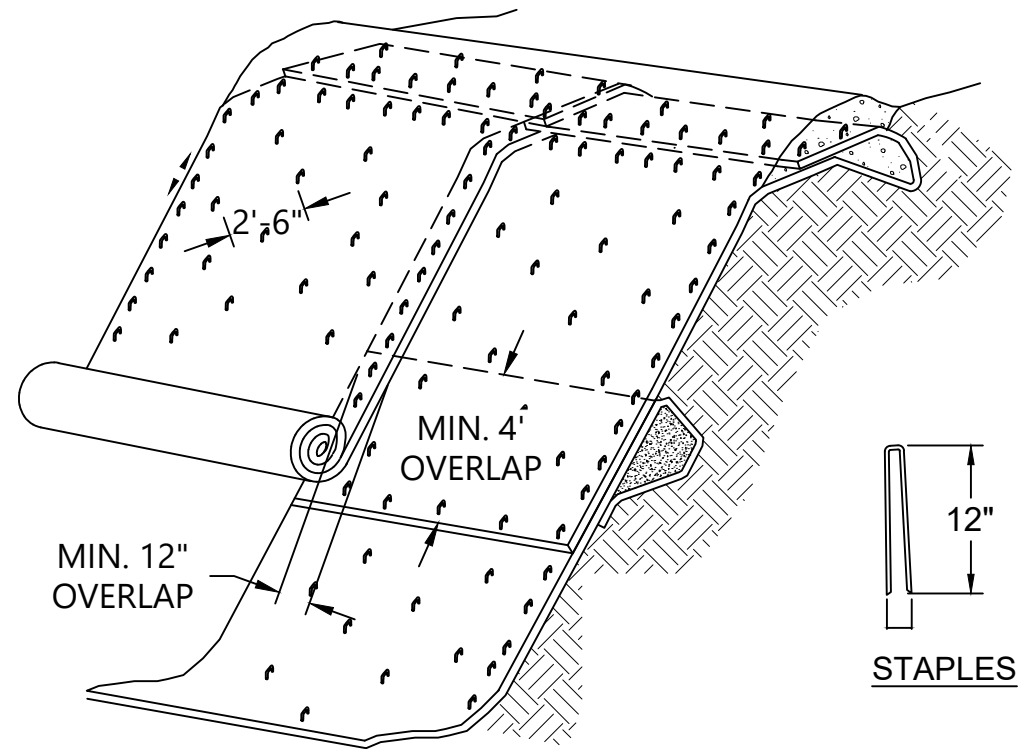


23 LOG EDGING DETAIL  
SCALE: NOT TO SCALE  
NOTE: SEE SPECIFICATIONS FOR LOG DIA.

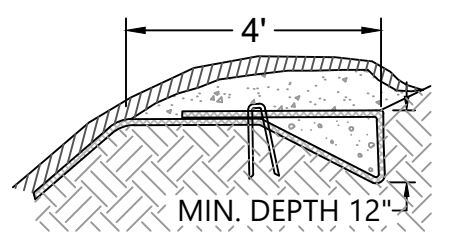


24 WILDLIFE TREE SNAG  
SCALE: NOT TO SCALE

- NOTES:
1. USE ON-SITE SALVAGED CONIFER TREES AS SNAGS. SELECTED TREES SHALL BE FIELD APPROVED BY ENGINEER.
  2. 12" - 14" DIAMETER SNAG (AT FG).
  3. BRANCHING SHALL BE FIELD APPROVED BY ENGINEER. 3"-5" MIN. BRANCH DIAMETER. 4 BRANCHES MIN. TO REMAIN.
  4. REMOVE BARK PRIOR TO INSTALLATION.

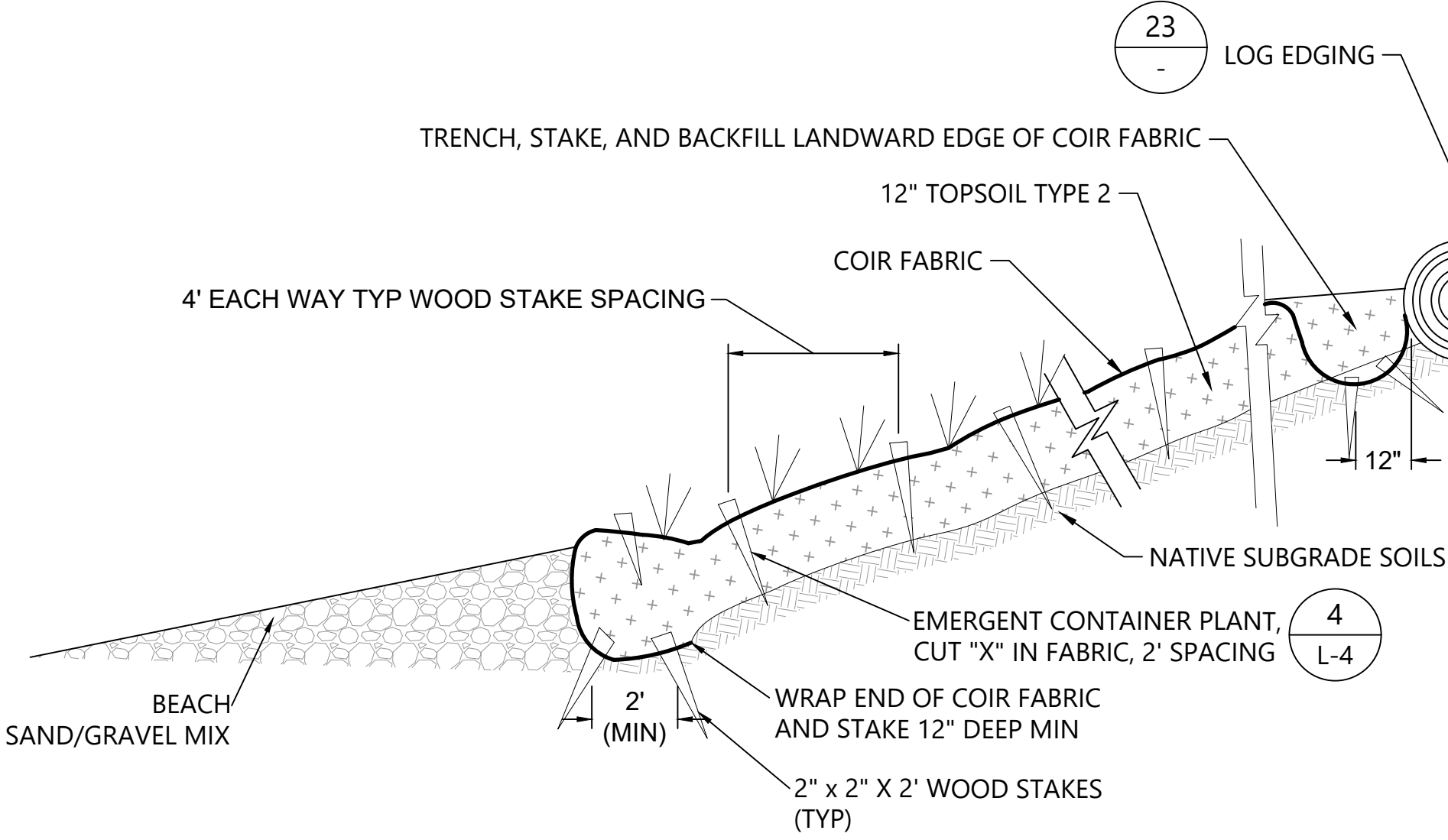


JUTE FABRIC INSTALLATION, TOP OF SLOPE ISOMETRIC VIEW  
NOT TO SCALE

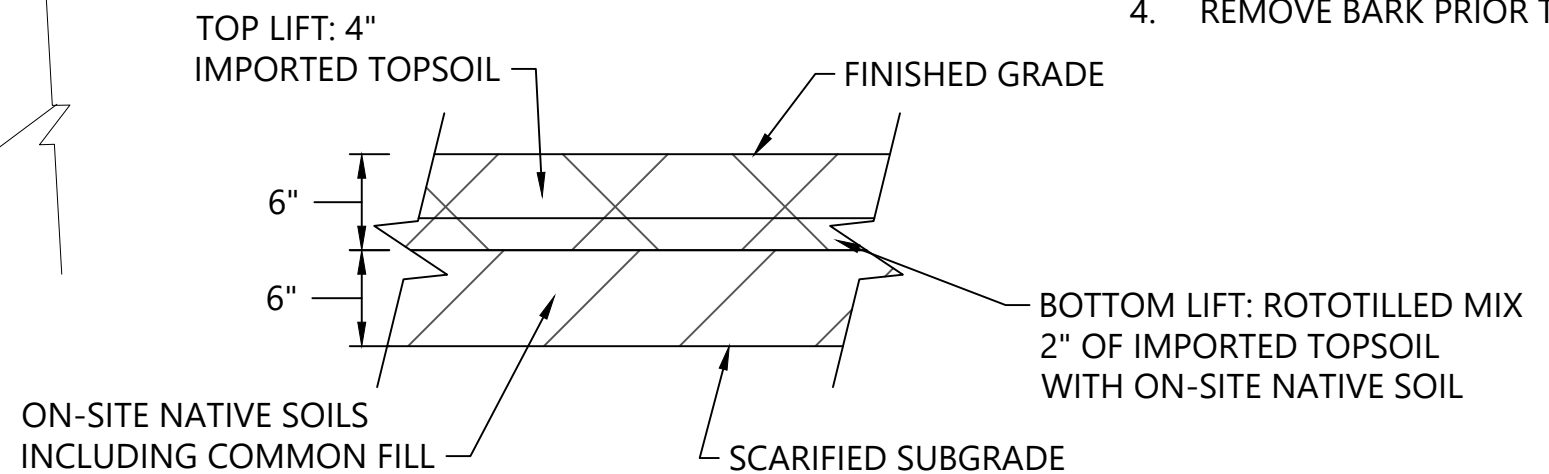


25 JUTE FABRIC SLOPE PROTECTION  
SCALE: NTS

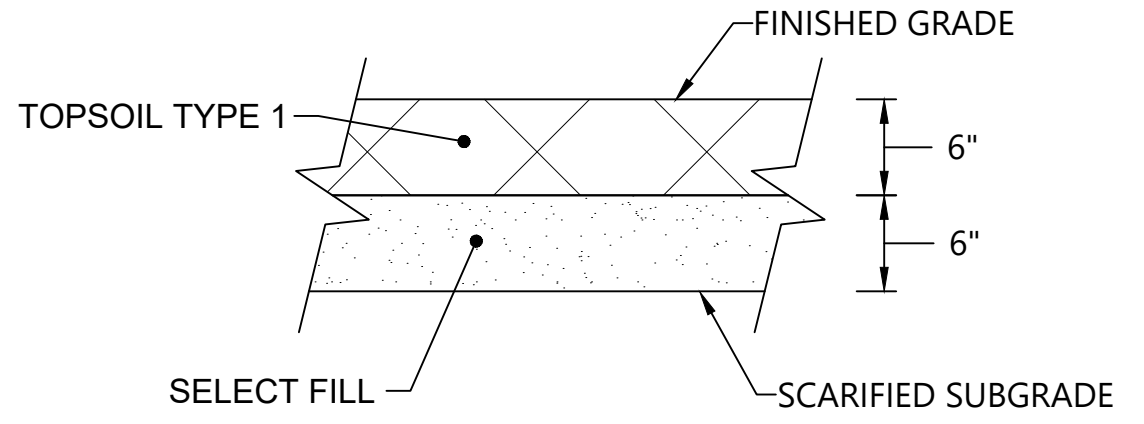
- NOTES:
1. SLOPE SURFACE SHALL BE FREE OF ROCKS, CLODS, STICKS AND GRASS. MATS/BLANKETS SHALL HAVE GOOD SOIL CONTACT.
  2. LAY BLANKETS LOOSELY AND STAKE OR STAPLE TO MAINTAIN DIRECT CONTACT WITH THE SOIL. DO NOT STRETCH.
  3. MATS/BLANKETS SHOULD BE INSTALLED VERTICALLY DOWNSLOPE.
  4. INSTALL JUTE MAT OVER ENTIRE PLANTING AREA. AVOID EXISTING TREES AND EXISTING STUMPS.
  5. WATTLES SHALL BE PLACED OVER JUTE MATTING. EXCAVATE WATTLE TRENCH (SEE DETAIL XX) PRIOR TO PLACING JUTE FABRIC.
  6. JUTE FABRIC SHALL BE ROLLED IN A CONTROLLED FASHION. INSTALL STAPLES AS MAT IS UNROLLED. FABRIC SHALL NOT BE ALLOWED TO ROLL DOWN THE SLOPE ON ITS OWN.



26 COIR FABRIC INSTALLATION  
SCALE: NTS



27 TYPICAL IMPORTED TOPSOIL INSTALLATION  
SCALE: 1"=1'



28 TYPE 1 TOPSOIL OVER SELECT FILL AT LAWN AREAS  
SCALE: 1"=1'

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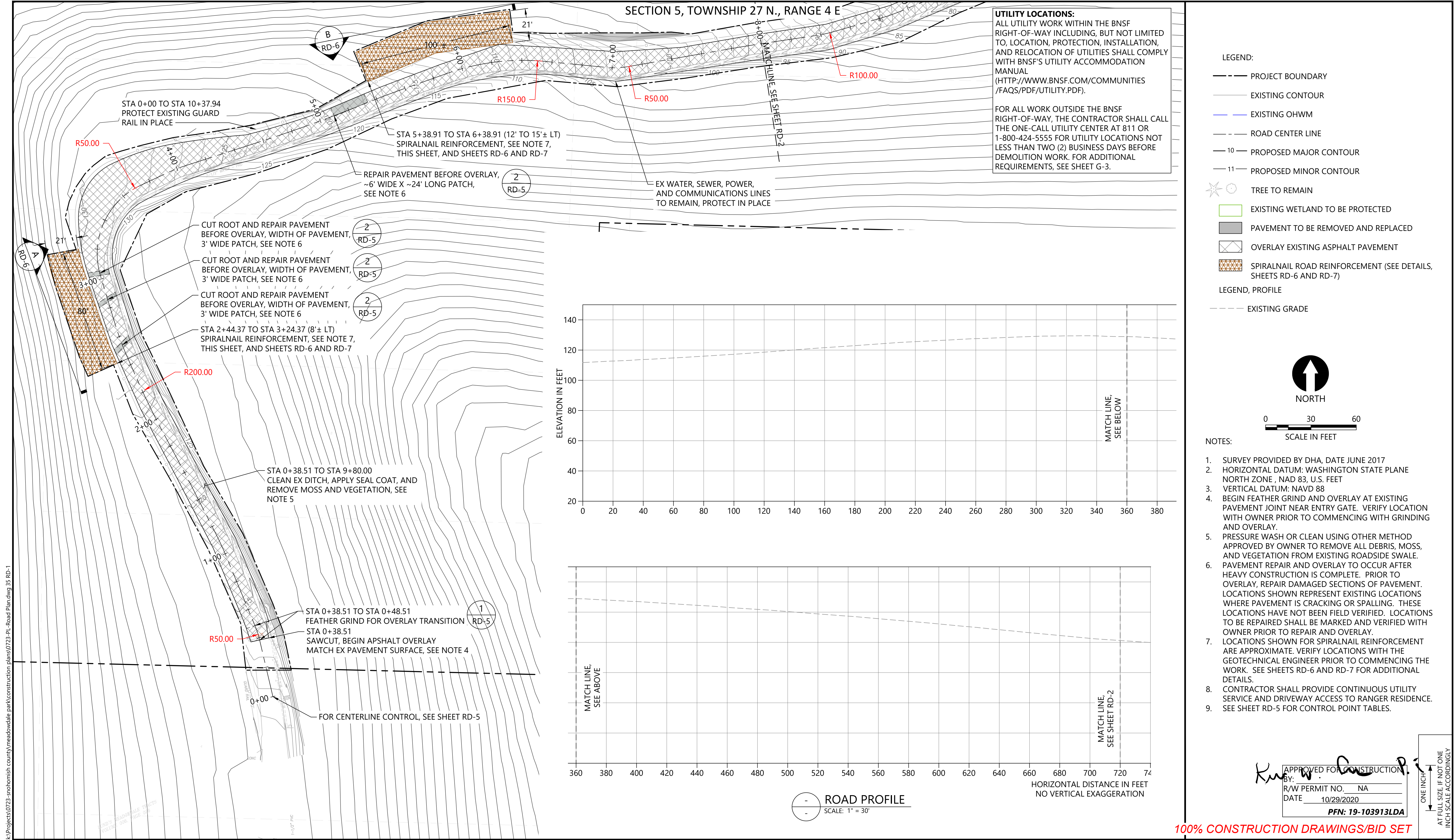
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Sep 15, 2020 9:03am chiewett

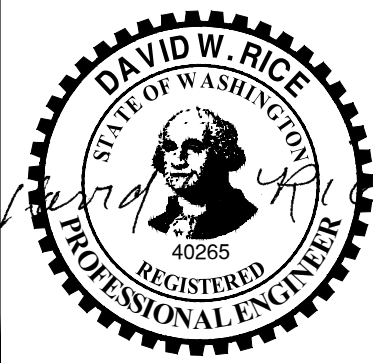
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CHECKED BY: DR  
APPROVED BY: PH  
SCALE: AS NOTED  
DATE: SEPTEMBER 2020





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CHECKED BY: DR  
APPROVED BY: DR  
SCALE: AS NOTED  
DATE: SEPTEMBER 2020

**MEADOWDALE BEACH PARK  
AND ESTUARY DESIGN**  
PFN 19-103913LDA

**ROADWAY PLAN (1 OF 2)**

**RD-1**

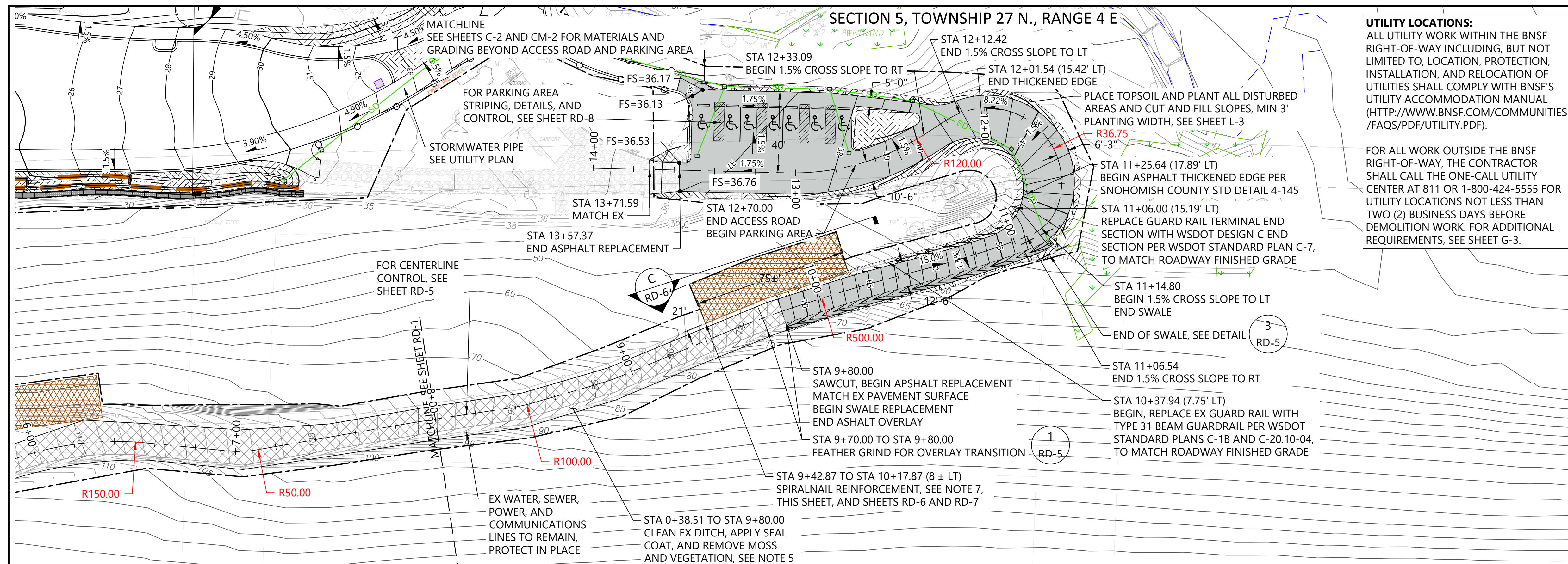
SHEET # **35** OF **81**

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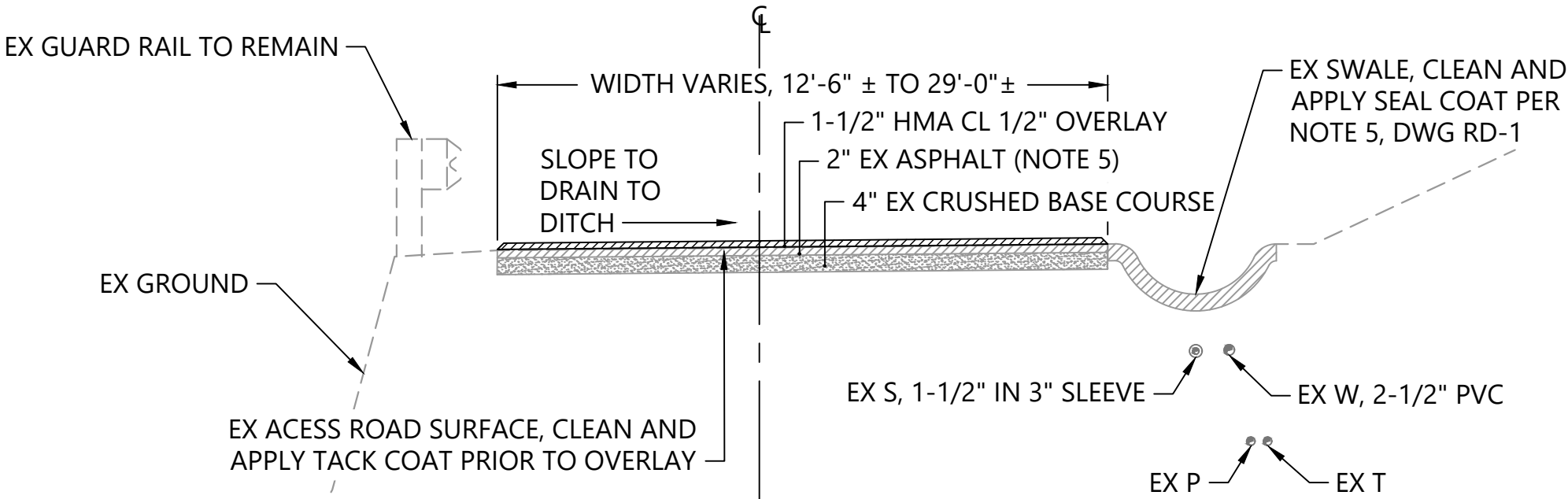
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ONE INCH  
AT FULL SIZE, IF NOT ONE  
INCH SCALE ACCORDINGLY

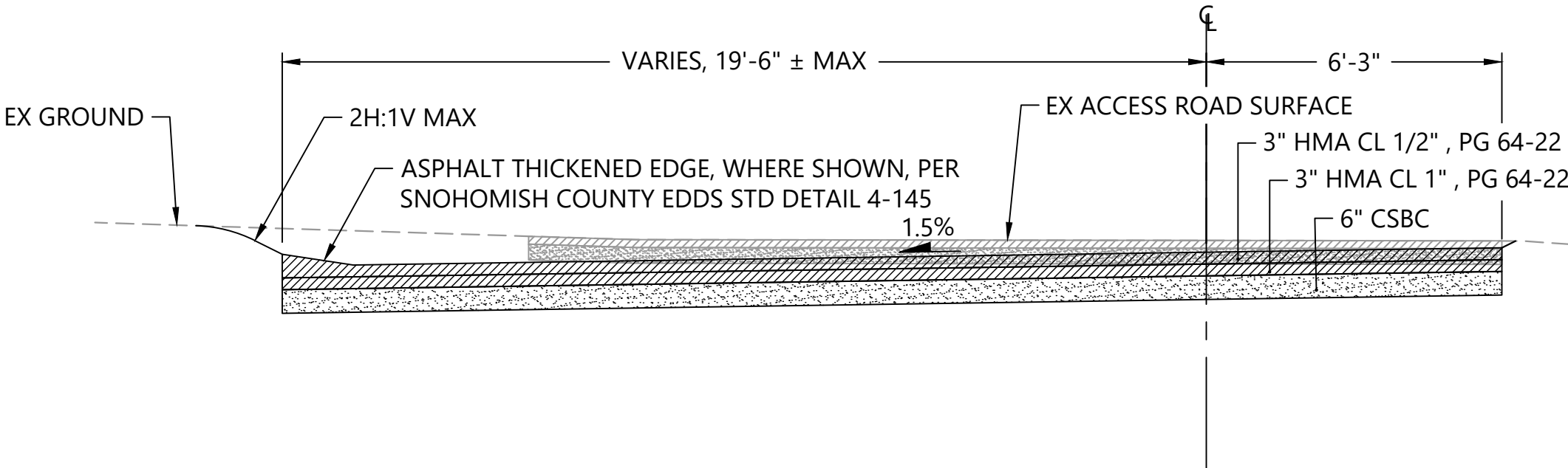




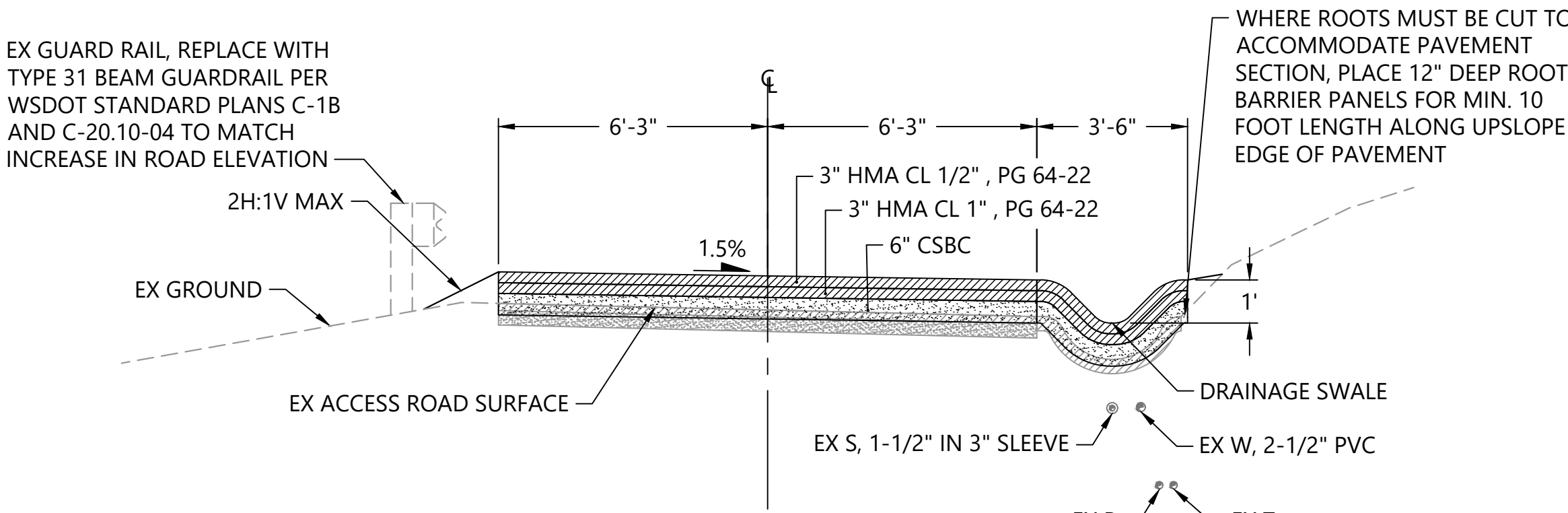




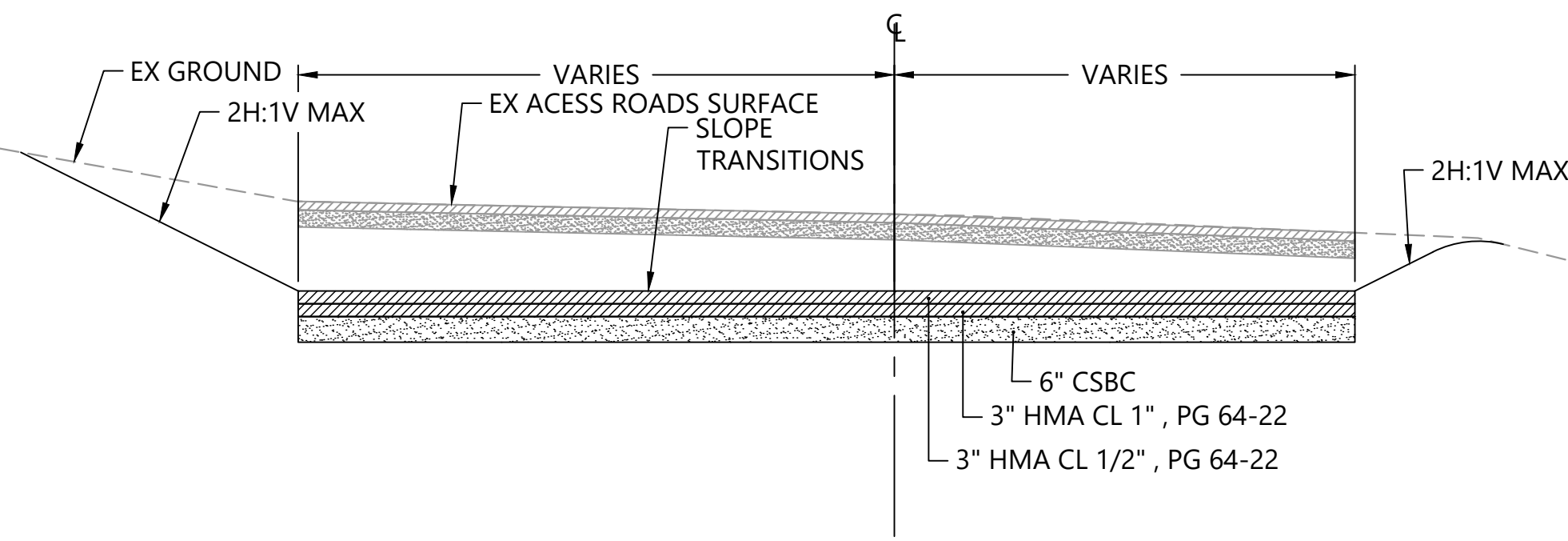
**A** TYPICAL ACCESS ROADWAY SECTION - STA 0+30 TO STA 9+80  
RD-2 SCALE: 1" = 3'



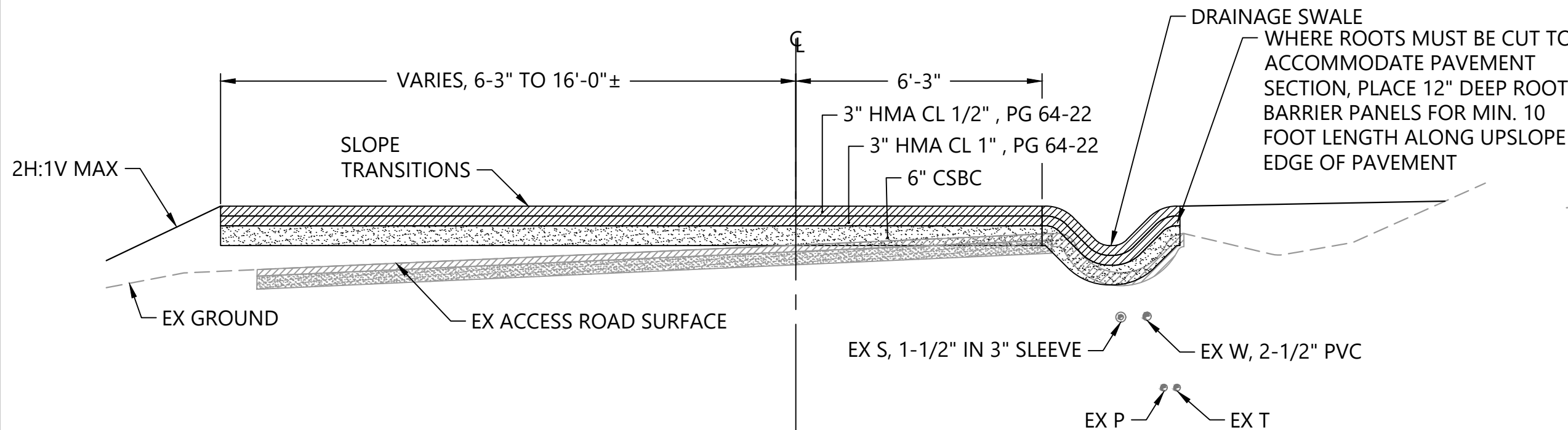
**D** TYPICAL ACCESS ROADWAY SECTION - STA 11+15 TO STA 12+12  
RD-2 SCALE: 1" = 3'



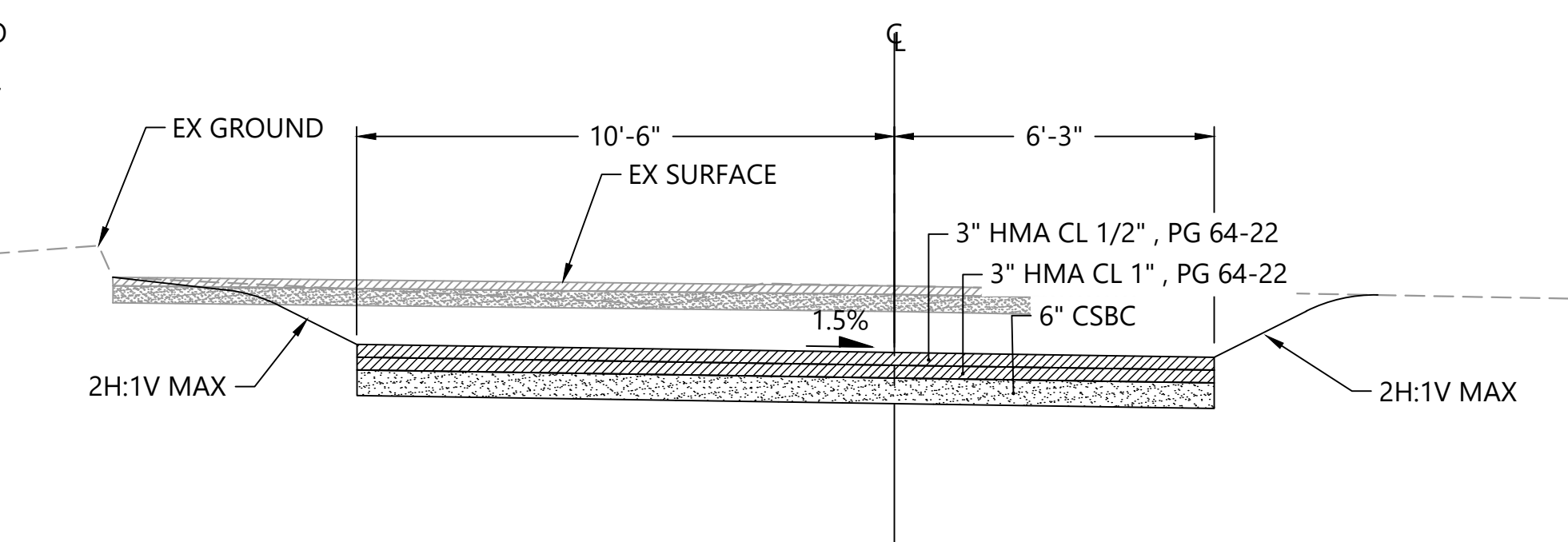
**B** TYPICAL ACCESS ROADWAY SECTION - STA 9+80 TO STA 10+89  
RD-2 SCALE: 1" = 3'



**E** TYPICAL ACCESS ROADWAY SECTION - STA 12+12 TO STA 12+33  
RD-2 SCALE: 1" = 3'



**C** TYPICAL ACCESS ROADWAY SECTION - STA 10+89 TO STA 11+15  
RD-2 SCALE: 1" = 3'

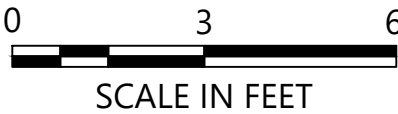


**F** TYPICAL ACCESS ROADWAY SECTION - STA 12+33 TO STA 12+70  
RD-2 SCALE: 1" = 3'

LEGEND:  
--- EXISTING GRADE  
--- PROPOSED GRADE

**UTILITY LOCATIONS:**  
ALL UTILITY WORK WITHIN THE BNSF RIGHT-OF-WAY INCLUDING, BUT NOT LIMITED TO, LOCATION, PROTECTION, INSTALLATION, AND RELOCATION OF UTILITIES SHALL COMPLY WITH BNSF'S UTILITY ACCOMMODATION MANUAL ([HTTP://WWW.BNSF.COM/COMMUNITIES/FAQS/PDF/UTILITY.PDF](http://www.bnsf.com/communities/faqs/pdf/utility.pdf)).

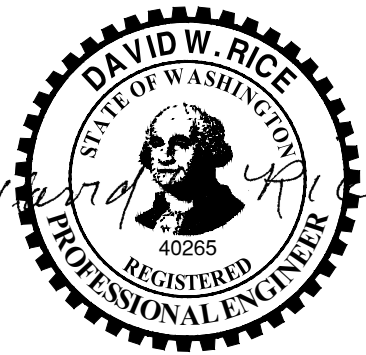
FOR ALL WORK OUTSIDE THE BNSF RIGHT-OF-WAY, THE CONTRACTOR SHALL CALL THE ONE-CALL UTILITY CENTER AT 811 OR 1-800-424-5555 FOR UTILITY LOCATIONS NOT LESS THAN TWO (2) BUSINESS DAYS BEFORE DEMOLITION WORK. FOR ADDITIONAL REQUIREMENTS, SEE SHEET G-3.



- NOTES:
1. SURVEY PROVIDED BY DHA, DATE JUNE 2017
  2. HORIZONTAL DATUM: WASHINGTON STATE PLANE NORTH ZONE, NAD 83, U.S. FEET
  3. VERTICAL DATUM: NAVD 88
  4. EXISTING UTILITIES SHOWN HAVE NOT BEEN FIELD VERIFIED. LOCATIONS SHOWN ARE BASED ON PARK AS-BUILT SHEETS AND MAY NOT BE ACCURATE. THE CONTRACTOR SHALL FIELD VERIFY LOCATIONS OF ALL EXISTING UTILITIES AS INDICATED ON SHEET G-3.
  5. THE DEPTH AND THICKNESS OF EXISTING PAVEMENT AND BASE MATERIALS HAVE NOT BEEN FIELD VERIFIED. THE DEPTH AND THICKNESS OF EXISTING PAVEMENT AND BASE MATERIALS IS SHOWN BASED ON PARK AS-BUILT SHEETS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE DEPTH AND THICKNESS OF EXISTING PAVEMENT AS REQUIRED TO COMPLETE THE WORK.
  6. CRUSHED SURFACING BASE COURSE (CSBC) SHALL BE PLACED AND COMPACTED, PER THE SPECIFICATIONS, PRIOR TO PLACING AND COMPACTING ASPHALT.

APPROVED FOR CONSTRUCTION  
R/W PERMIT NO. NA  
DATE 10/29/2020  
PFN: 19-103913LDA

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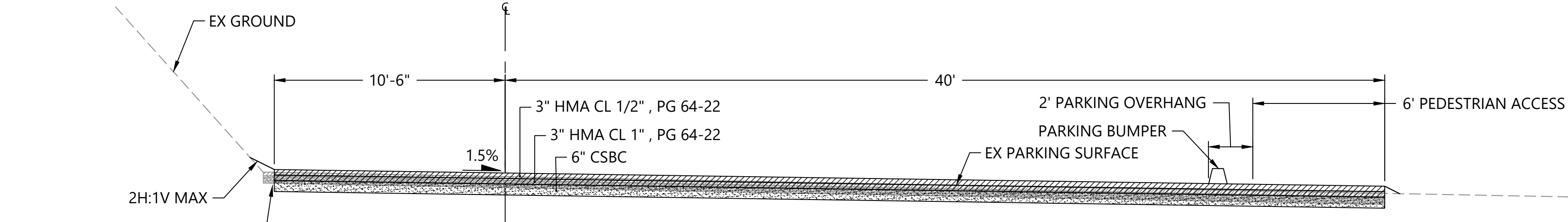
MEADOWDALE BEACH PARK  
AND ESTUARY DESIGN  
PFN 19-103913LDA

TYPICAL ACCESS ROADWAY SECTIONS

RD-3

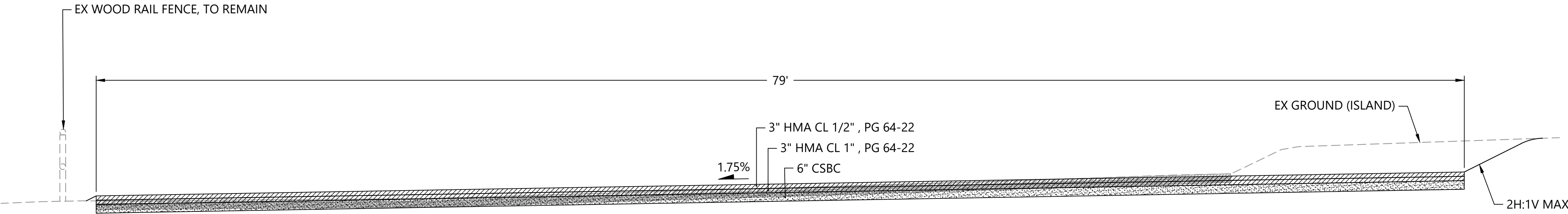
SHEET # 37 OF 81





WHERE ROOTS MUST BE CUT TO ACCOMMODATE PAVEMENT SECTION, PLACE 12" DEEP ROOT BARRIER PANELS FOR MIN. 10 FOOT LENGTH ALONG UPSLOPE EDGE OF PAVEMENT

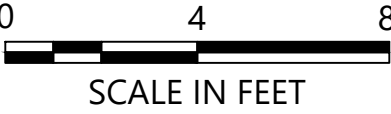
**F**  
RD-2  
TYPICAL PARKING AREA SECTION - STA 12+70 TO STA 13+52  
SCALE: 1" = 4'



**G**  
RD-2  
TYPICAL PARKING AREA SECTION - PARALLEL TO CENTERLINE, 20' RT  
SCALE: 1" = 4'

LEGEND:  
--- EXISTING GRADE  
— PROPOSED GRADE

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FOR ALL WORK OUTSIDE THE BNSF RIGHT-OF-WAY, THE CONTRACTOR SHALL CALL THE ONE-CALL UTILITY CENTER AT 811 OR 1-800-424-5555 FOR UTILITY LOCATIONS NOT LESS THAN TWO (2) BUSINESS DAYS BEFORE DEMOLITION WORK. FOR ADDITIONAL REQUIREMENTS, SEE SHEET G-3.

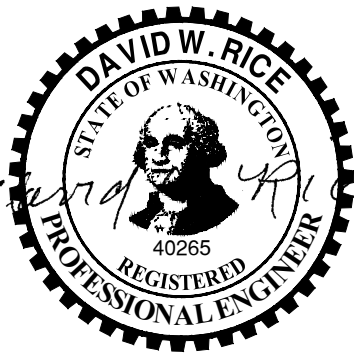


- NOTES:
1. SURVEY PROVIDED BY DHA, DATE JUNE 2017
  2. HORIZONTAL DATUM: WASHINGTON STATE PLANE NORTH ZONE , NAD 83, U.S. FEET
  3. VERTICAL DATUM: NAVD 88
  4. EXISTING UTILITIES SHOWN HAVE NOT BEEN FIELD VERIFIED. LOCATIONS SHOWN ARE BASED ON PARK AS-BUILT SHEETS AND MAY NOT BE ACCURATE. THE CONTRACTOR SHALL FIELD VERIFY LOCATIONS OF ALL EXISTING UTILITIES AS INDICATED ON SHEET G-3.
  5. THE DEPTH AND THICKNESS OF EXISTING PAVEMENT AND BASE MATERIALS HAVE NOT BEEN FIELD VERIFIED. THE DEPTH AND THICKNESS OF EXISTING PAVEMENT AND BASE MATERIALS IS SHOWN BASED ON PARK AS-BUILT SHEETS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE DEPTH AND THICKNESS OF EXISTING PAVEMENT AS REQUIRED TO COMPLETE THE WORK.
  6. CRUSHED SURFACING BASE COURSE (CSBC) SHALL BE PLACED AND COMPACTED, PER THE SPECIFICATIONS, PRIOR TO PLACING AND COMPACTING ASPHALT.

APPROVED FOR CONSTRUCTION BY: *[Signature]*  
R/W PERMIT NO. NA  
DATE 10/29/2020  
PFN: 19-103913LDA

ONE INCH  
AT FULL SIZE, IF NOT ONE  
INCH SCALE ACCORDINGLY

100% CONSTRUCTION DRAWINGS/BID SET



REVISIONS				
REV	DATE	BY	APP'D	DESCRIPTION

DESIGNED BY: PH  
DRAWN BY: CH/TG  
CHECKED BY: DR  
APPROVED BY: PH  
SCALE: AS NOTED  
DATE: SEPTEMBER 2020

MEADOWDALE BEACH PARK  
AND ESTUARY DESIGN  
PFN 19-103913LDA

TYPICAL PARKING AREA SECTIONS

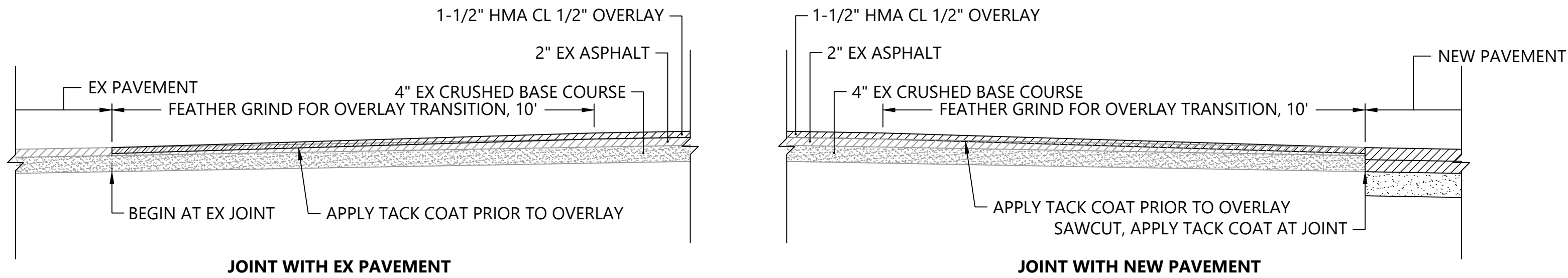
RD-4

SHEET # 38 OF 81

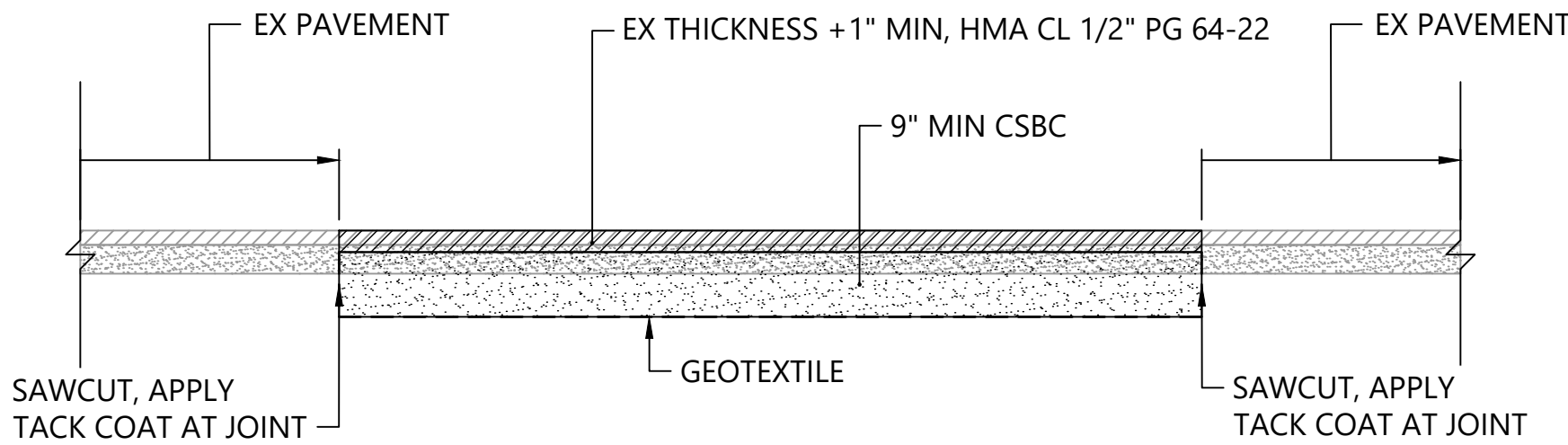


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Sep 15, 2020 9:04am chiewett

SECTION 5, TOWNSHIP 27 N., RANGE 4 E



1 OVERLAY TRANSITION DETAIL  
RD-1 SCALE: NTS



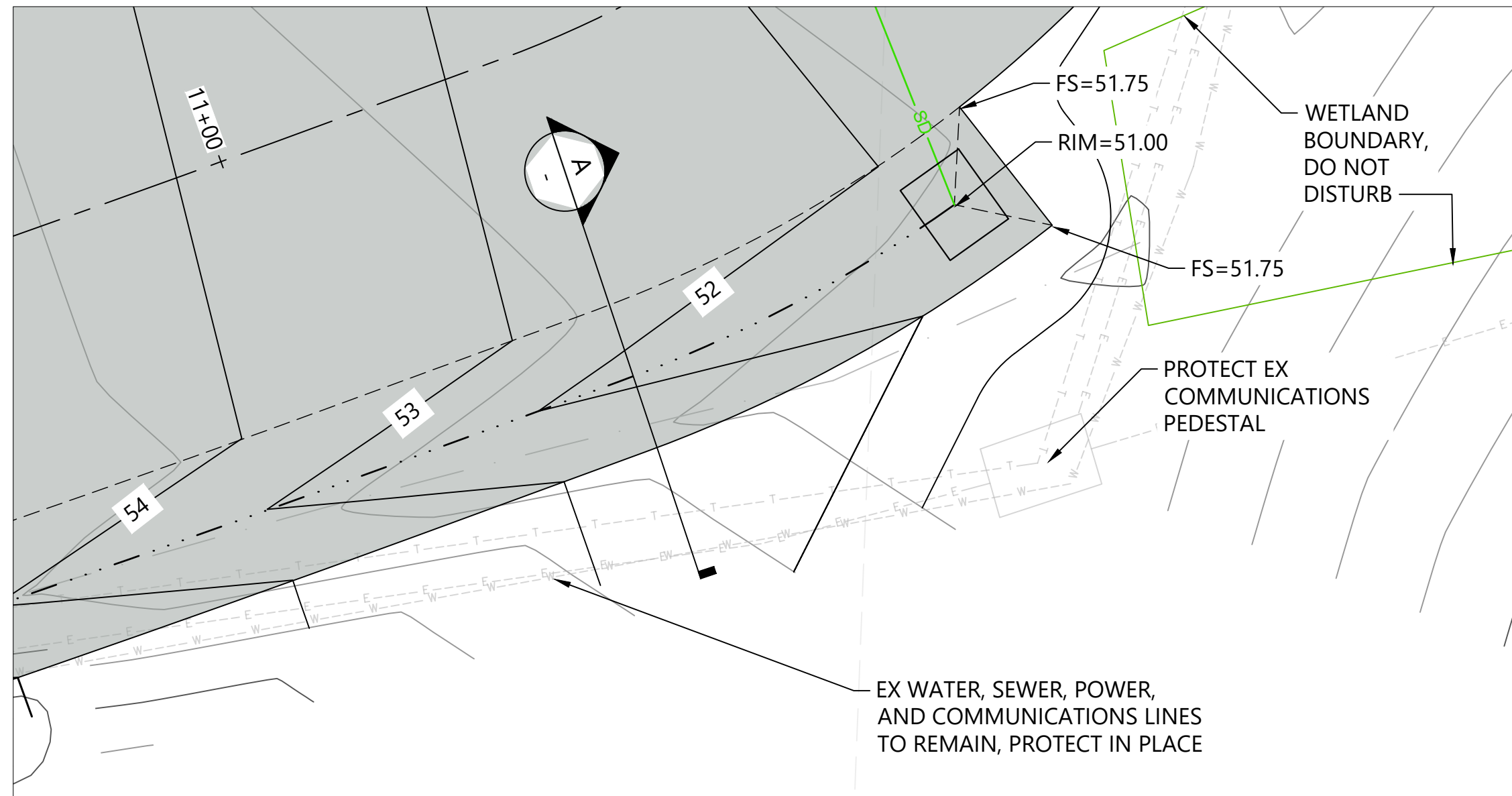
2 TYPICAL PAVEMENT REPAIR DETAIL  
RD-1 SCALE: NTS

NOTES:

- DAMAGE TO EXISTING ASPHALT SHALL BE REPAIRED PRIOR TO OVERLAY. VERIFY LOCATIONS FOR REPAIR BY WALKING THE ROADWAY WITH OWNER PRIOR TO OVERLAY.
- THE DEPTH AND THICKNESS OF EXISTING PAVEMENT AND BASE MATERIALS HAVE NOT BEEN FIELD VERIFIED. THE DEPTH AND THICKNESS OF EXISTING PAVEMENT AND BASE MATERIALS IS SHOWN BASED ON PARK AS-BUILT DRAWINGS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE DEPTH AND THICKNESS OF EXISTING PAVEMENT AS REQUIRED TO COMPLETE THE WORK.
- WHERE DAMAGE HAS BEEN CAUSE BY A ROOT, CUT THE ROOT AT THE EDGE OF THE ROADWAY AND REMOVE THE ROOT COMPLETELY FROM UNDER THE ROADWAY. INSTALL MIN 80 MIL TREE ROOT BARRIER OVER REMAINING ROOT. VERIFY ROOT REMOVAL WITH OWNER'S ARBORIST PRIOR TO CUTTING ANY TREE ROOTS FOR PAVEMENT REPAIR.

NOTES:

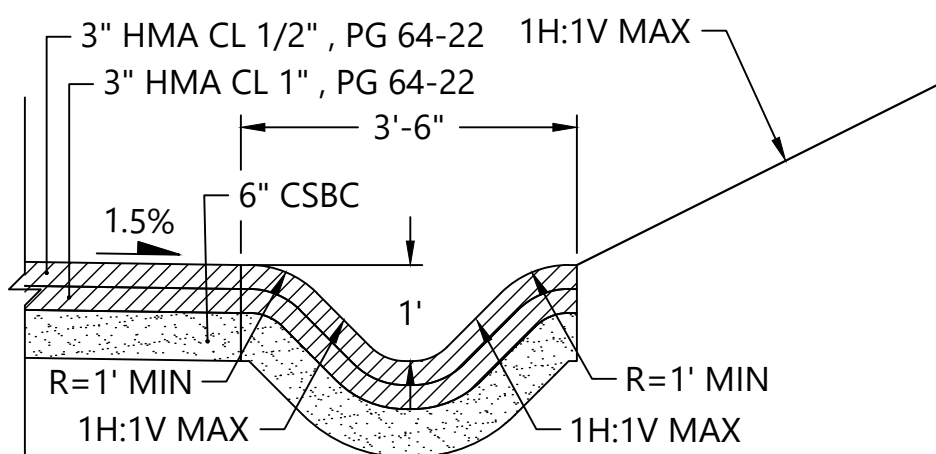
- THE DEPTH AND THICKNESS OF EXISTING PAVEMENT AND BASE MATERIALS HAVE NOT BEEN FIELD VERIFIED. THE DEPTH AND THICKNESS OF EXISTING PAVEMENT AND BASE MATERIALS IS SHOWN BASED ON PARK AS-BUILT DRAWINGS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE DEPTH AND THICKNESS OF EXISTING PAVEMENT AS REQUIRED TO COMPLETE THE WORK.
- WHERE ROOTS MUST BE CUT TO ACCOMMODATE PAVEMENT SECTION, PLACE 12" DEEP ROOT BARRIER PANELS FOR MIN. 10 FOOT LENGTH ALONG UPSLOPE EDGE OF PAVEMENT.



3 END OF SWALE DETAIL  
RD-2 SCALE: 1" = 3'

**UTILITY LOCATIONS:**  
ALL UTILITY WORK WITHIN THE BNSF RIGHT-OF-WAY INCLUDING, BUT NOT LIMITED TO, LOCATION, PROTECTION, INSTALLATION, AND RELOCATION OF UTILITIES SHALL COMPLY WITH BNSF'S UTILITY ACCOMMODATION MANUAL ([HTTP://WWW.BNSF.COM/COMMUNITIES/FAQS/PDF/UTILITY.PDF](http://www.bnsf.com/communities/faqs/pdf/utility.pdf)).

FOR ALL WORK OUTSIDE THE BNSF RIGHT-OF-WAY, THE CONTRACTOR SHALL CALL THE ONE-CALL UTILITY CENTER AT 811 OR 1-800-424-5555 FOR UTILITY LOCATIONS NOT LESS THAN TWO (2) BUSINESS DAYS BEFORE DEMOLITION WORK. FOR ADDITIONAL REQUIREMENTS, SEE SHEET G-3.



A TYPICAL SWALE SECTION  
SCALE: NTS

CONTROL POINTS (ROAD CENTER LINE)			
POINT #	NORTHING	EASTING	DESCRIPTION
1000	316520.93	1272208.27	0+00.0 - BOA
1001	316547.71	1272150.64	0+39.2 - RP
1002	316559.12	1272199.32	0+39.2 - PC
1003	316563.03	1272198.23	0+43.3 - MID
1004	316566.85	1272196.83	0+47.4 - PT
1005	316537.57	1271992.48	0+98.5 - RP
1006	316614.11	1272177.25	0+98.5 - PC
1007	316621.28	1272174.12	1+06.3 - MID
1008	316628.32	1272170.71	1+14.2 - PT
1009	316435.47	1271707.82	1+52.3 - RP
1010	316662.35	1272153.38	1+52.3 - PC
1011	316666.91	1272151.03	1+57.5 - MID
1012	316671.45	1272148.63	1+62.6 - PT
1013	316932.56	1272575.99	1+91.1 - RP
1014	316696.58	1272135.18	1+91.1 - PC
1015	316713.39	1272126.58	2+10.0 - MID
1016	316730.52	1272118.62	2+28.9 - PT
1017	316825.77	1272295.19	2+44.7 - RP
1018	316744.96	1272112.24	2+44.7 - PC
1019	316756.26	1272107.66	2+56.9 - MID
1020	316767.81	1272103.77	2+69.1 - PT
1021	316814.07	1272142.01	3+02.3 - RP
1022	316799.58	1272094.16	3+02.3 - PC
1023	316834.43	1272096.34	3+37.9 - MID
1024	316859.35	1272120.81	3+73.6 - PT
1025	316777.16	1272181.09	3+93.3 - RP
1026	316867.72	1272138.69	3+93.3 - PC
1027	316870.23	1272144.51	3+99.7 - MID
1028	316872.36	1272150.48	4+06.0 - PT
1029	317840.14	1271893.47	4+57.6 - RP
1030	316888.15	1272199.59	4+57.6 - PC
1031	316900.53	1272235.72	4+95.8 - MID
1032	316451.36	1272460.30	5+34.0 - RP
1033	316914.29	1272271.35	5+34.0 - PRC
1034	316918.52	1272282.07	5+45.5 - MID
1035	316922.50	1272292.89	5+57.0 - PT
1036	316792.05	1272373.76	5+89.6 - RP
1037	316933.39	1272323.54	5+89.6 - PC
1038	316940.94	1272355.53	6+22.5 - MID
1039	316941.34	1272388.39	6+55.4 - PT
1040	316987.08	1272434.24	6+96.6 - RP
1041	316937.32	1272429.36	6+96.6 - PC
1042	316937.12	1272436.12	7+03.4 - MID
1043	316937.83	1272442.84	7+10.1 - PT
1044	315964.53	1272682.37	7+78.6 - RP
1045	316949.61	1272510.25	7+78.6 - PC
1046	316951.67	1272522.53	7+91.0 - MID
1047	316953.59	1272534.83	8+03.5 - PT
1048	317057.30	1272552.32	8+36.1 - RP
1049	316958.40	1272567.07	8+36.1 - PC

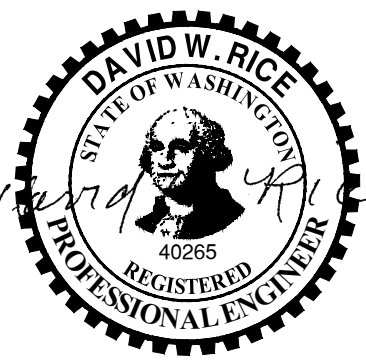
CONTROL POINTS (ROAD CENTER LINE)			
1050	316959.60	1272573.63	8+42.7 - MID
1051	316961.24	1272580.10	8+49.4 - PT
1052	317066.62	1272584.52	8+82.9 - RP
1053	316970.55	1272612.30	8+82.9 - PC
1054	316972.28	1272617.70	8+88.6 - MID
1055	316974.31	1272622.98	8+94.3 - PT
1056	316533.49	1272865.01	9+48.1 - RP
1057	316995.03	1272672.72	9+48.1 - PC
1058	317002.95	1272692.96	9+69.9 - MID
1059	317009.99	1272713.53	9+91.6 - PT
1060	316538.66	1272881.29	10+08.7 - RP
1061	317015.16	1272729.81	10+08.7 - PC
1062	317018.81	1272741.81	10+21.2 - MID
1063	317022.16	1272753.90	10+33.8 - PT
1064	317510.91	1272646.46	10+54.4 - RP
1065	317027.42	1272773.85	10+54.4 - PC
1066	317033.91	1272796.36	10+77.9 - MID
1067	317041.46	1272818.54	11+01.3 - PT
1068	317066.88	1272815.26	11+07.0 - RP
1069	317043.41	1272823.86	11+07.0 - PC
1070	317049.87	1272833.58	11+18.7 - MID
1071	317070.10	1272803.96	11+30.5 - RP
1072	317060.04	1272839.30	11+30.5 - PCC
1073	317099.68	1272825.76	11+75.1 - MID
1074	317100.89	1272783.89	12+19.7 - PT
1075	317194.73	1272708.10	12+31.9 - RP
1076	317094.20	1272773.63	12+31.9 - PC
1077	317079.27	1272740.81	12+68.1 - MID
1078	317074.77	1272705.03	13+04.3 - PT
1079	317077.21	1272609.35	14+00.0 - EOA
1080	316563.09	1272198.39	0+43.3 - CPI
1081	316621.35	1272174.26	1+06.3 - CPI
1082	316666.92	1272151.05	1+57.5 - CPI
1083	316713.24	1272126.26	2+10.0 - CPI
1084	316756.13	1272107.31	2+56.9 - CPI
1085	316841.00	1272081.61	3+45.5 - CPI
1086	316870.41	1272144.44	3+99.7 - CPI
1087	316899.84	1272235.97	4+95.8 - CPI
1088	316918.64	1272282.03	5+45.5 - CPI
1089	316944.60	1272355.08	6+23.0 - CPI
1090	316936.66	1272436.14	7+03.4 - CPI
1091	316951.75	1272522.51	7+91.0 - CPI
1092	316959.38	1272573.68	8+42.8 - CPI
1093	316972.13	1272617.75	8+88.6 - CPI
1094	317003.40	1272692.80	9+69.9 - CPI
1095	317018.96	1272741.77	10+21.3 - CPI
1096	317033.39	1272796.52	10+77.9 - CPI
1097	317047.79	1272835.82	11+19.7 - CPI
1098	317154.53	1272866.18	12+28.7 - CPI
1099	317073.81	1272742.35	12+69.2 - CPI

CONTROL POINTS (PARKING AREA) SEE SHEET RD-8				CONTROL POINTS (PARKING AREA) SEE SHEET RD-8			
POINT #	NORTHING	EASTING	DESCRIPTION	POINT #	NORTHING	EASTING	DESCRIPTION
1200	317087.88	1272783.16	EOP STA 12+27.37, 10.50'LT	1211	317110.02	1272787.98	EOP STA 12+12.42, 6.25'RT
1202	317065.61	1272652.16	EOP STA 13+56.92, 10.50'LT	1212	317098.82	1272769.27	EOP STA 12+33.09, 6.25'RT
1203	317079.61	1272651.91	EOP STA 13+57.52, 3.49'RT	1213	317085.73	1272740.65	EOP STA 12+66.39, 6.25'RT
1204	317079.55	1272654.53	EOP STA 13+54.89, 3.49'RT	1214	317088.69	1272736.79	EOP STA 12+69.51, 10.14'RT
1205	317082.47	1272657.61	EOP STA 13+51.89, 6.49'RT	1215	317104.72	1272737.20	EOP STA 12+64.69, 25.40'RT
1206	317105.50	1272658.20	EOP STA 13+51.89, 29.52'RT	1216	317107.59	1272740.83	EOP STA 12+58.13, 26.92'RT
1207	317118.74	1272664.40	EOP STA 13+46.03, 42.92'RT	1217	317104.33	1272768.01	EOP STA 12+31.07, 11.56'RT
1208	317115.50	1272676.84	EOP STA 13+33.52, 40.00'RT	1218	317043.25	1272804.83	EOP STA 10+88.87, 6.25'LT
1209	317114.20	1272727.63	EOP STA 12+72.67, 37.14'RT	1219	317042.29	1272834.54	EOP STA. 11+14.80, 6.25'RT
1210	317108.42	1272775.59	EOP STA 12+22.49, 10.84'RT				

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DATE 10/29/2020  
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ONE INCH  
AT FULL SCALE IF NOT ONE  
INCH SCALE ACCORDING



REVISIONS				
REV	DATE	BY	APP'D	DESCRIPTION

DESIGNED BY: DR  
DRAWN BY: CH/TG  
CHECKED BY: DR  
APPROVED BY: DR  
SCALE: AS NOTED  
DATE: SEPTEMBER 2020

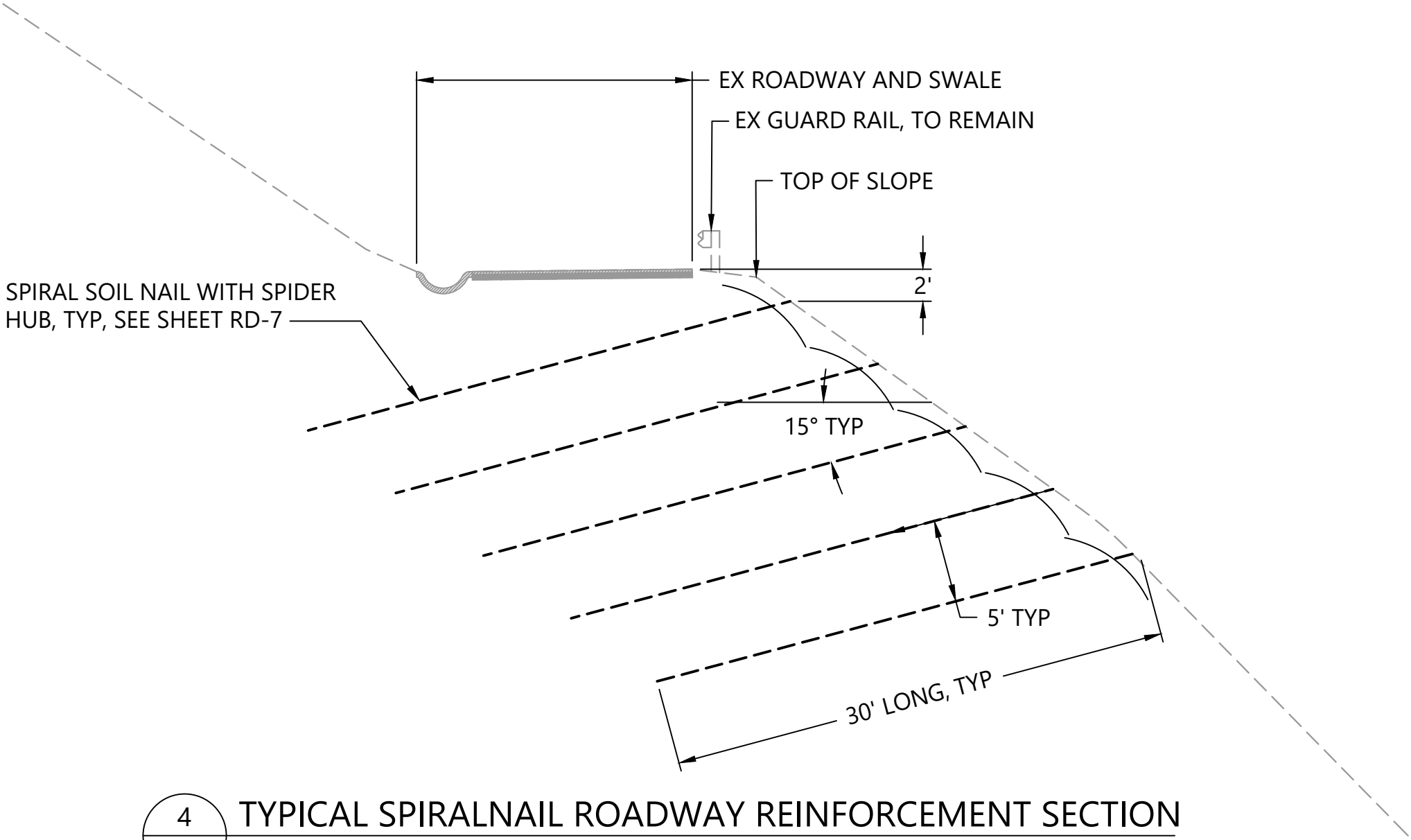
MEADOWDALE BEACH PARK  
AND ESTUARY DESIGN  
PFN 19-103913LDA

ROADWAY AND PARKING AREA DETAILS

RD-5

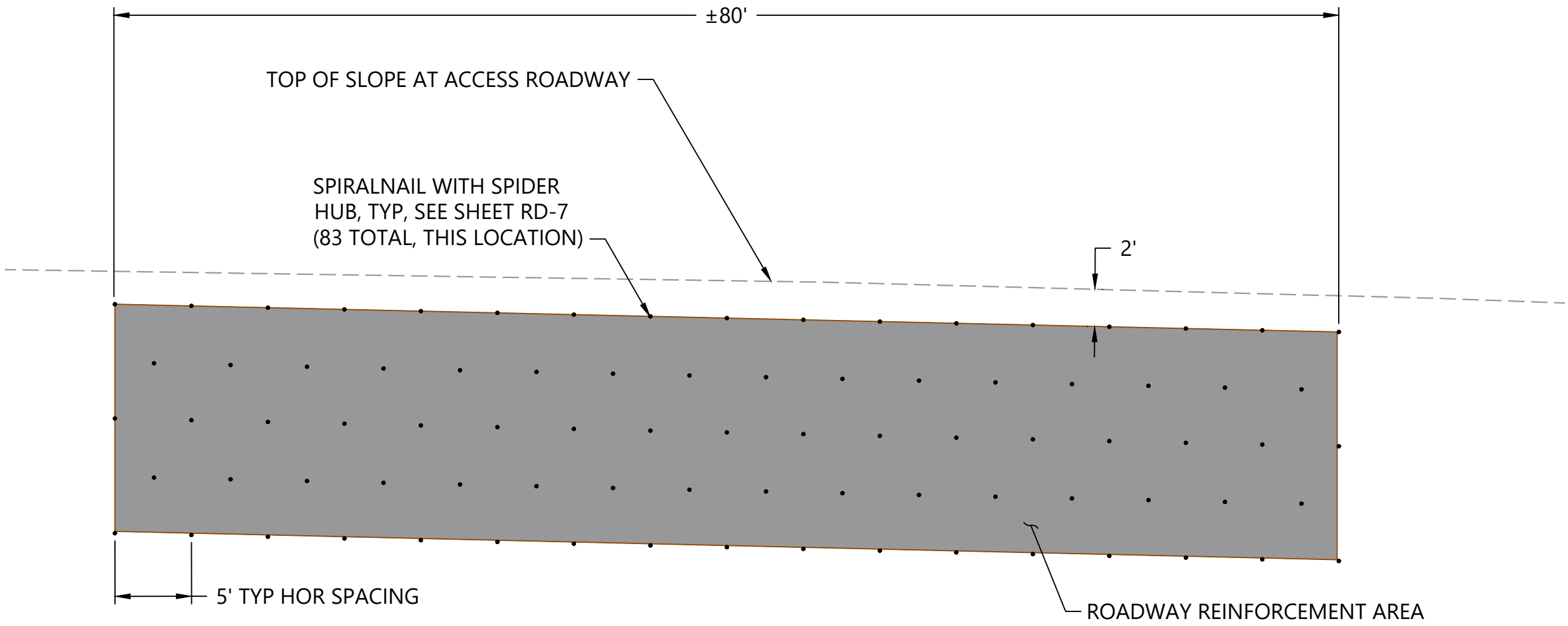
SHEET # 39 OF 81



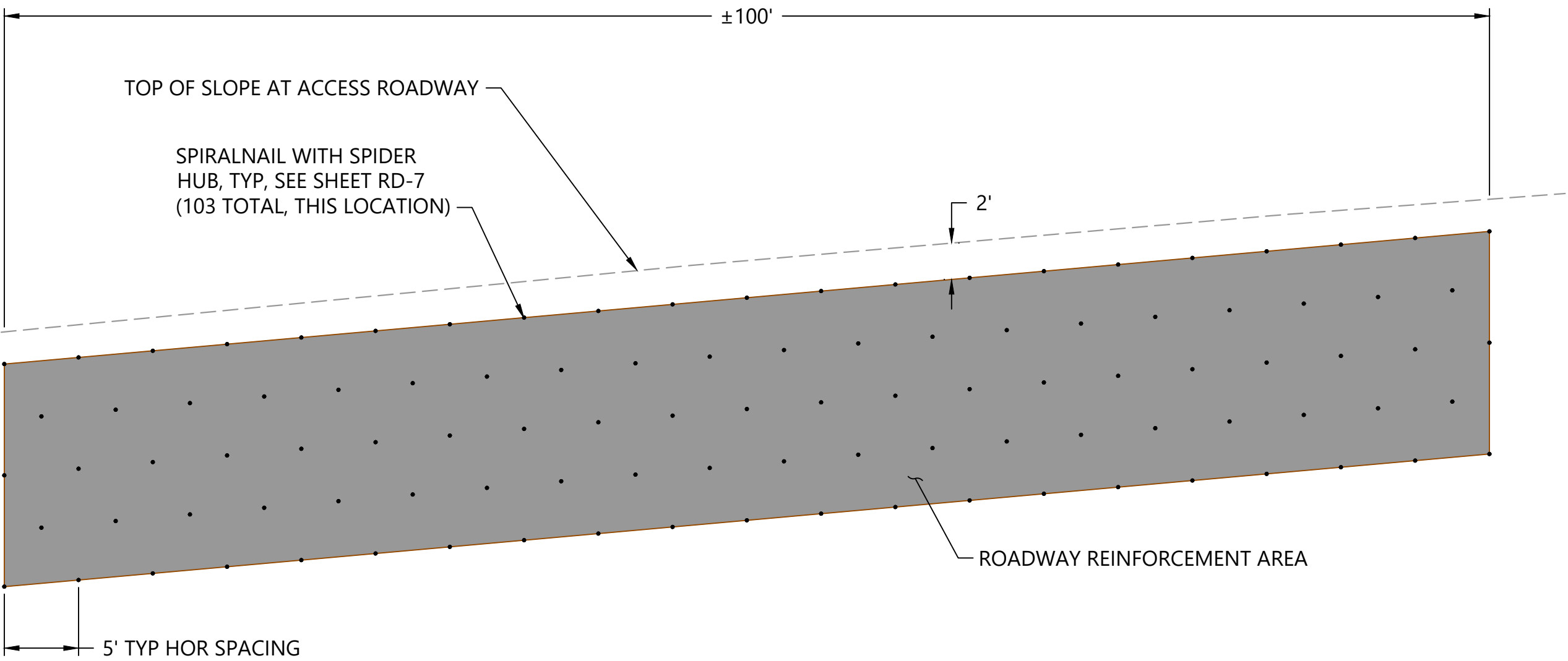


4 TYPICAL SPIRALNAIL ROADWAY REINFORCEMENT SECTION  
RD-1 SCALE: NTS  
NOTES:

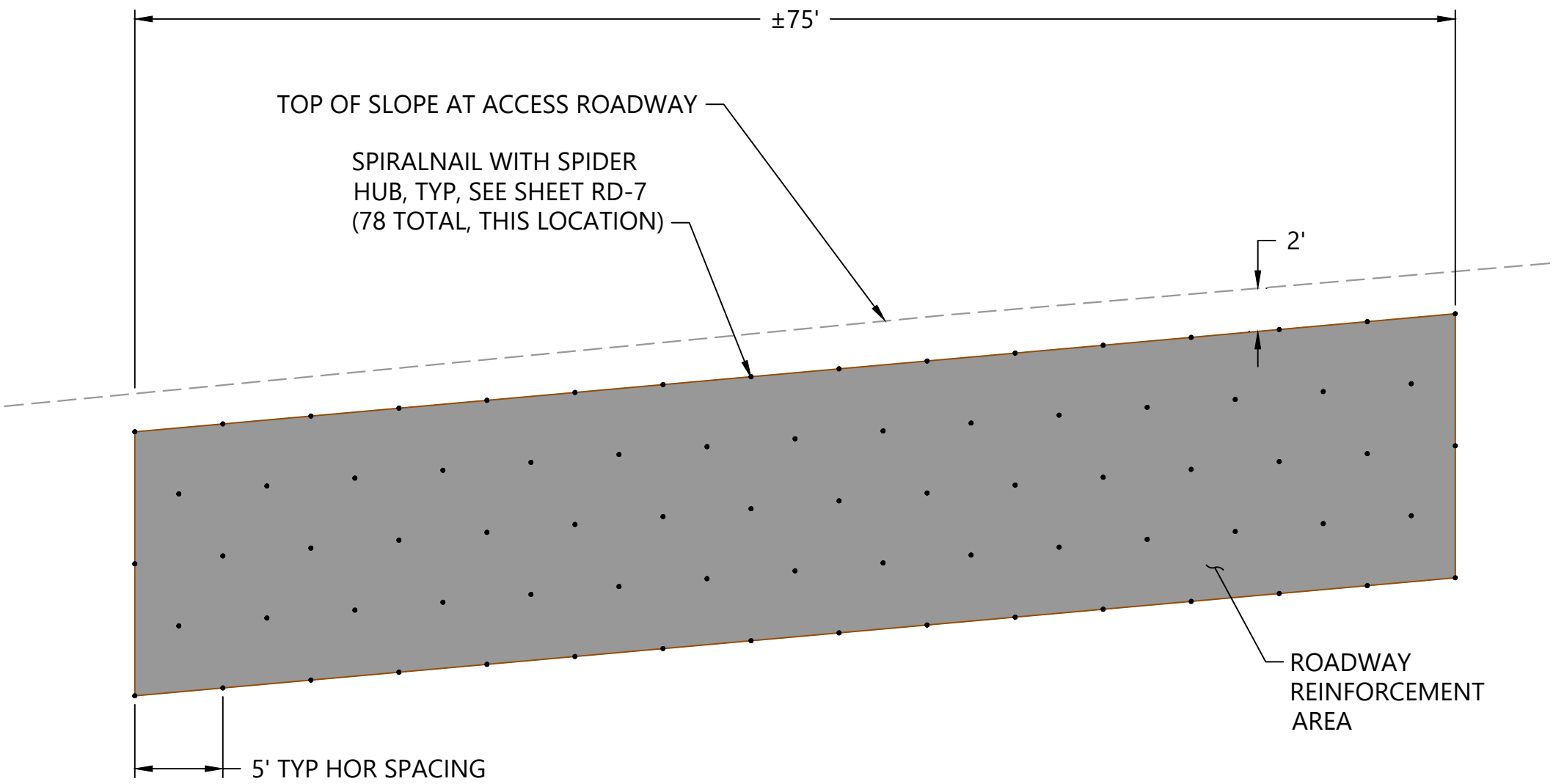
- 1. ROADWAY SLOPE AREAS TO BE REINFORCED ARE SHOWN ON SHEETS RD-1 AND RD-2. EXTENT OF AREAS TO BE REINFORCED SHALL BE CONFIRMED WITH THE PROJECT GEOTECHNICAL ENGINEER PRIOR TO COMMENCING THE WORK.
- 2. THE EXACT LOCATION AND SPACING OF SPIRALNAILS MAY BE MODIFIED IN THE FIELD, UNDER THE DIRECTION OF THE PROJECT GEOTECHNICAL ENGINEER, AS NEEDED TO AVOID TREES, ROOTS, AND OTHER OBSTRUCTIONS.



A ROADWAY REINFORCEMENT ELEVATION (STA 2+44.37 TO STA 3+24.37)  
RD-1 SCALE: NTS



B ROADWAY REINFORCEMENT ELEVATION (STA 5+38.91 TO STA 6+38.91)  
RD-1 SCALE: NTS



C ROADWAY REINFORCEMENT ELEVATION (STA 9+42.87 TO STA 10+17.87)  
RD-2 SCALE: NTS

APPROVED FOR CONSTRUCTION  
BY: *[Signature]*  
R/W PERMIT NO. NA  
DATE 10/29/2020  
PFN: 19-103913LDA

100% CONSTRUCTION DRAWINGS/BID SET

REVISIONS					
REV	DATE	BY	APP'D	DESCRIPTION	

DESIGNED BY: TS  
DRAWN BY: CH/TG  
CHECKED BY: DR  
APPROVED BY: TS  
SCALE: AS NOTED  
DATE: SEPTEMBER 2020

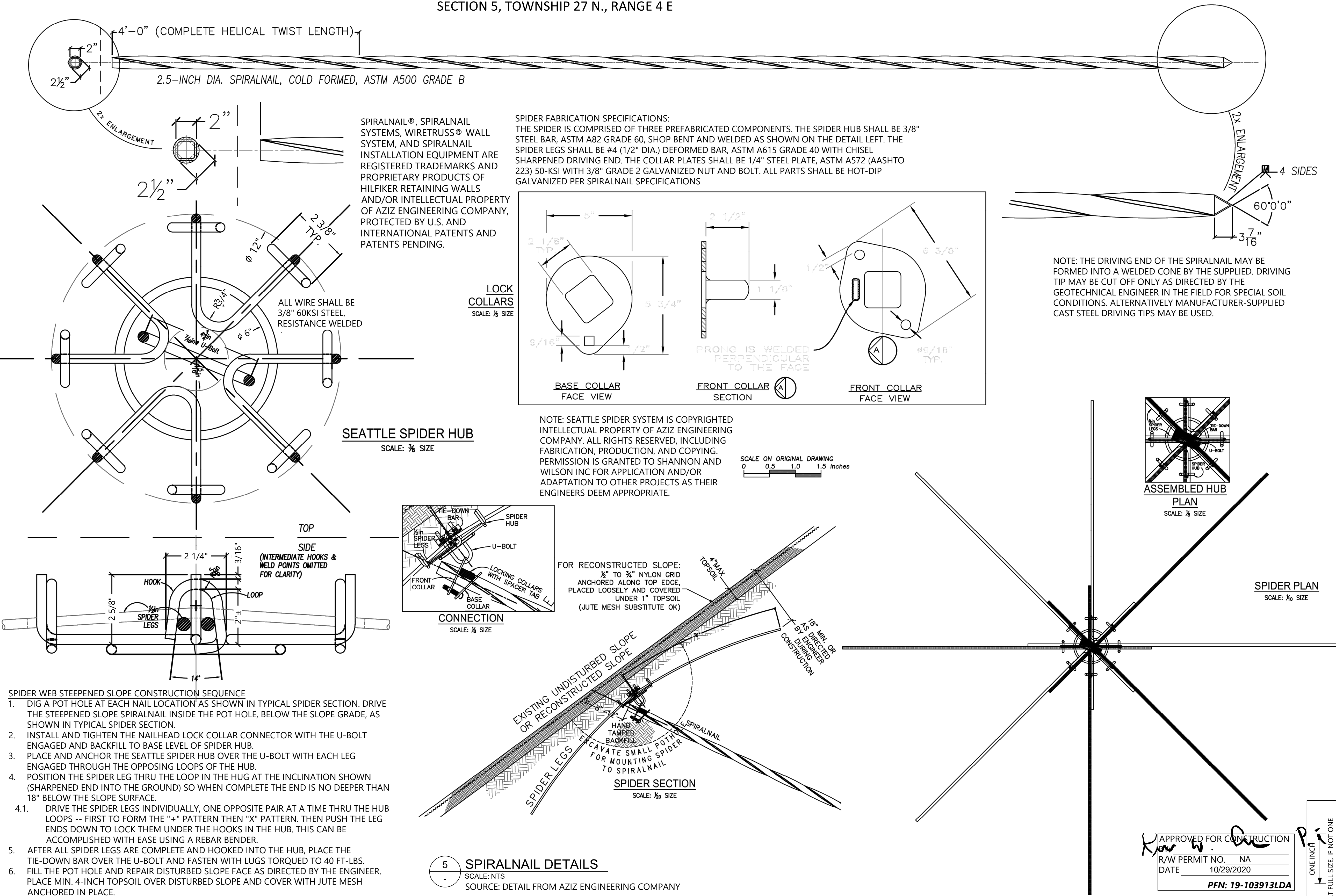


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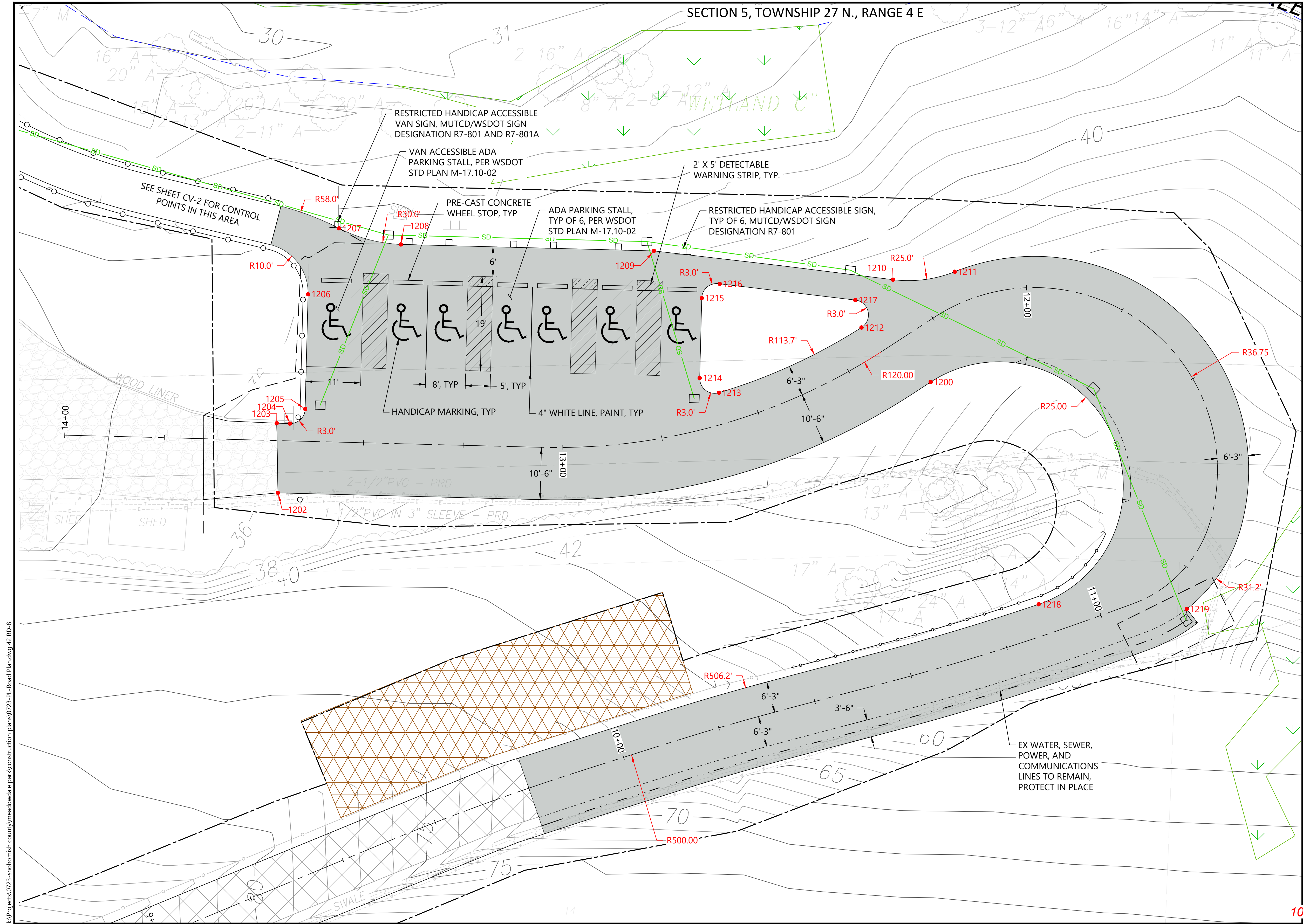
- SPECIFICATIONS AND CONSTRUCTION NOTES**
- CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THESE, SHEETS, SPECIFICATIONS, AND CONSTRUCTION SEQUENCE. ALL SPIRALNAIL WORK AND TESTING SHALL BE CONDUCTED BY, UNDER OBSERVATION OF, AND AS DIRECTED IN THE FIELD BY THE UNDERSIGNED GEOTECHNICAL ENGINEER.
  - 2.5-INCH DIAMETER SPIRALNAILS® SHALL BE HILFIKER SHOP FABRICATED SQUARE-SECTION SPIRALLED STEEL TUBING (ASTM A500 GRADE B (42ksi, 0.218-INCH WALL THICKNESS) COLD FORMED FROM 2-INCH DIAMETER PIPE TO PRODUCE ONE COMPLETE SPIRAL TWIST PER EACH 4-ft TUBE LENGTH; WITH A SHOP WELDED CONE FORMED AT THE TIP. SPIRALNAIL AND ALL ITS COMPONENTS SHALL BE HOT-DIP GALVANIZED SOON AFTER FABRICATION IN ACCORDANCE WITH ASTM A123 (AASHTO M-111) (2 OZ/SF MINIMUM COATING THICKNESS) OR EQUAL.
  - FOR SLOPE CONFINEMENT, SPIRALNAILS AFTER DRIVEN SHALL BE TIED TO SEATTLE STYLE SPIDERS SYSTEM, 6-ft FLAT DIAMETER AS MEASURED TO LEG ENDS. SEE THIS SHEET FOR SPECIFICATIONS.
  - THE MANUFACTURER SHALL PROVIDE A CERTIFICATE OF COMPLIANCE FOR ALL FABRICATED WALL MATERIALS AND COMPONENTS TO HAVE BEEN FABRICATED AND TREATED AT THE TIME OF CONSTRUCTION MEETING THE REQUIREMENTS OF APPLICABLE ASTM AND AASHTO SPECIFIED STANDARDS HERE AND ELSEWHERE IN THE PLANS.
  - THE ENGINEER WILL LOAD TEST SELECT SPIRALNAILS AFTER DRIVEN IN PLACE TO ASSURE ADEQUATE DESIGN YIELD STRENGTH AT LOCATIONS TO BE SELECTED AFTER OBSERVING THE NAIL DRIVING RESISTANCE. ADDITIONAL SPIRALNAILS SHALL BE TESTED, AS DETERMINED BY THE ENGINEER IF SOIL TYPES ENCOUNTERED VARY FROM DESIGN. THE TESTING SHALL TAKE PLACE AT LEAST 24 HOURS AFTER THE SPIRALNAIL IS DRIVEN. THE LOAD TEST SHALL CONSIST OF SUSTAINED LOADS TO RESIDUAL DISPLACEMENT (TYPICALLY 10 MINUTES) APPLIED IN APPROXIMATELY 10% INCREMENTS OF THE DESIGN YIELD STRENGTH (Fy) OF THE SPIRALNAIL. THE INCREMENTAL LOADING SHALL BE APPLIED UNTIL 150-PERCENT OF THE Fy IS ACHIEVED OR UNTIL PULLOUT FAILURE IS GENERATED. FAILURE OCCURS WHEN A STRAIN DEFLECTION GREATER THAN 2.0 INCH IS OBSERVED OVER A 10-MINUTE PERIOD UNDER THE MAXIMUM SUSTAINED LOAD. IN CASE OF FAILURE, THE ADJACENT NAILS SHALL BE TESTED UNDER MAX LOAD WHILE THE ENGINEER REEVALUATE SPIRALNAILING DESIGN. TESTING SHALL BE IN ACCORDANCE WITH THE CURRENT TESTING PROCEDURE AND USING THE APPARATUS SUPPLIED BY THE SPIRALNAIL MANUFACTURER. THE LOAD TESTING APPARATUS SHALL BE IN CUSTODY OF THE ENGINEER FOR THE DURATION OF CONSTRUCTION. A TYPICAL SPIRALNAIL PULLOUT LOAD TEST TAKES UP TO ONE DAY TO COMPLETE IN THE FIELD.

DRIVING HAMMER, CONTROLS AND PULLOUT TESTER ARE AVAILABLE FROM THE SUPPLIER. THE INSTALLER SHALL PROVIDE HYDRAULIC POWER AND THE HOISTING SYSTEM SUCH AS A SUITABLE EXCAVATOR OR CRANE. CONTACT THE SUPPLIER BELOW TO COORDINATE THE HAMMER WEIGHT, MINIMUM HYDRAULIC POWER SUPPLY AND FITTING SIZES. SPIRALNAIL®, SEATTLE SPIDERS ARE MANUFACTURED BY:

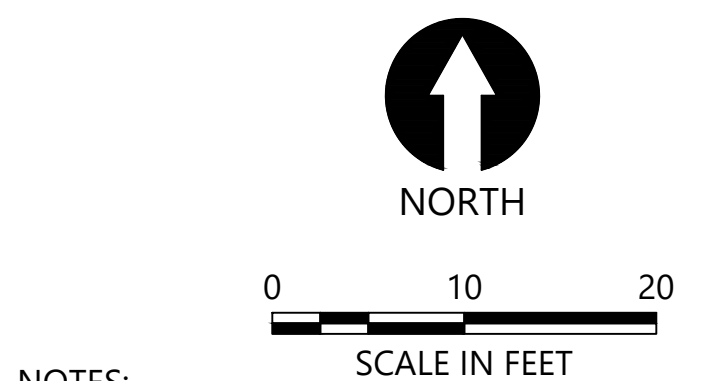
HILFIKER RETAINING WALLS  
3900 BROADWAY  
EUREKA, CA 95502  
(800) 762-8962 | (707) 443-2981 FAX  
HILFIKER.COM







- LEGEND:
- PROJECT BOUNDARY
  - EXISTING CONTOUR
  - EXISTING OHWM
  - TREE TO REMAIN
  - EXISTING WETLAND TO BE PROTECTED
  - PAVEMENT TO BE REMOVED AND REPLACED
  - OVERLAY EXISTING ASPHALT PAVEMENT
  - SPIRALNAIL ROAD REINFORCEMENT
  - CONTROL POINT (SEE NOTE 9)



- NOTES:
- SURVEY PROVIDED BY DHA, DATE JUNE 2017
  - HORIZONTAL DATUM: WASHINGTON STATE PLANE NORTH ZONE, NAD 83, U.S. FEET
  - VERTICAL DATUM: NAVD 88
  - BEGIN FEATHER GRIND AND OVERLAY AT EXISTING PAVEMENT JOINT NEAR ENTRY GATE. VERIFY LOCATION WITH OWNER PRIOR TO COMMENCING WITH GRINDING AND OVERLAY.
  - PRESSURE WASH OR CLEAN USING OTHER METHOD APPROVED BY OWNER TO REMOVE ALL DEBRIS, MOSS, AND VEGETATION FROM EXISTING ROADSIDE SWALE. PAVEMENT REPAIR AND OVERLAY TO OCCUR AFTER HEAVY CONSTRUCTION IS COMPLETE. PRIOR TO OVERLAY, REPAIR DAMAGED SECTIONS OF PAVEMENT. LOCATIONS SHOWN REPRESENT EXISTING LOCATIONS WHERE PAVEMENT IS CRACKING OR SPALLING. THESE LOCATIONS HAVE NOT BEEN FIELD VERIFIED. LOCATIONS TO BE REPAIRED SHALL BE MARKED AND VERIFIED WITH OWNER PRIOR TO REPAIR AND OVERLAY.
  - LOCATIONS SHOWN FOR SPIRALNAIL REINFORCEMENT ARE APPROXIMATE. VERIFY LOCATIONS WITH THE GEOTECHNICAL ENGINEER PRIOR TO COMMENCING THE WORK. SEE SHEETS RD-6 AND RD-7 FOR ADDITIONAL DETAILS.
  - CONTRACTOR SHALL PROVIDE CONTINUOUS UTILITY SERVICE AND DRIVEWAY ACCESS TO RANGER RESIDENCE.
  - SEE SHEET RD-5 FOR CONTROL POINT TABLES.

APPROVED FOR CONSTRUCTION  
R/W PERMIT NO. NA  
DATE 10/29/2020  
PFN: 19-103913LDA

100% CONSTRUCTION DRAWINGS/BID SET

720 Olive Way | Suite 1900 | Seattle, WA 98101

REVISIONS				
REV	DATE	BY	APP'D	DESCRIPTION

DESIGNED BY: DR

DRAWN BY: CH/TG

CHECKED BY: DR

APPROVED BY: DR

SCALE: AS NOTED

DATE: SEPTEMBER 2020

**MEADOWDALE BEACH PARK AND ESTUARY DESIGN**

PFN 19-103913LDA

**PARKING AREA STRIPING PLAN**

**RD-8**

SHEET # 42 OF 81



SECTION 5, TOWNSHIP 27 N., RANGE 4 E

**UTILITY LOCATIONS:**  
ALL UTILITY WORK WITHIN THE BNSF RIGHT-OF-WAY INCLUDING, BUT NOT LIMITED TO, LOCATION, PROTECTION, INSTALLATION, AND RELOCATION OF UTILITIES SHALL COMPLY WITH BNSF'S UTILITY ACCOMMODATION MANUAL (HTTP://WWW.BNSF.COM/COMMUNITIES/FAQS/PDF/UTILITY.PDF).

FOR ALL WORK OUTSIDE THE BNSF RIGHT-OF-WAY, THE CONTRACTOR SHALL CALL THE ONE-CALL UTILITY CENTER AT 811 OR 1-800-424-5555 FOR UTILITY LOCATIONS NOT LESS THAN TWO (2) BUSINESS DAYS BEFORE DEMOLITION WORK. FOR ADDITIONAL REQUIREMENTS, SEE SHEET G-3.

**WORK WITHIN BNSF RIGHT-OF-WAY:**  
FOR ALL WORK WITHIN BNSF RIGHT-OF-WAY, SEE PROJECT SPECIFICATIONS FOR REQUIREMENTS OF WORK WITHIN BNSF RIGHT-OF-WAY AND MEADOWDALE BEACH RAILROAD BRIDGE CIVIL AND STRUCTURAL DRAWINGS BY HANSON PROFESSIONAL SERVICES, INC.

STANDARD UTILITY DETAILS			
SYMBOL	AGENCY	STANDARD DETAIL	DESCRIPTION
①	SNOHOMISH CO. EDDS	5-120	CATCH BASIN DETAILS
②	WSDOT	B-05.20-02	CATCH BASIN TYPE 1
③	WSDOT	B-10.20-02	CATCH BASIN TYPE 2
④	WSDOT	B-30.20-04	RECTANGULAR SOLID METAL COVER
⑤	WSDOT	B-30.30-03	RECTANGULAR VANED GRATE
⑥	WSDOT	B-30.50-03	RECTANGULAR HERRINGBONE GRATE
⑦	WSDOT	B-30.70-04	CIRCULAR FRAME (RING) AND COVER

STANDARD UTILITY DETAILS			
SYMBOL	AGENCY	STANDARD DETAIL	DESCRIPTION
⑧	WSDOT	B-55.20-00	PIPE ZONE BEDDING AND BACKFILL
⑨	CITY OF EDMONDS	WA-150	CONCRETE THRUST BLOCKING
⑩	CITY OF EDMONDS	WA-160A	REDUCED PRESSURE BACKFLOW ASSEMBLY 2" AND SMALLER
⑪	CITY OF EDMONDS	WA-160B	HOT BOX ASSEMBLY FOR REDUCED PRESSURE BACKFLOW ASSEMBLY

LEGEND:

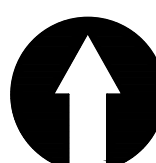
- PARK BOUNDARY
- PROJECT BOUNDARY
- BNSF RIGHT OF WAY
- WETLAND TO BE PROTECTED
- TREE TO REMAIN
- PLAT CENTERLINE
- FENCING

LEGEND (EXISTING UTILITIES):

- SD UNDERGROUND STORM LINE
- SS UNDERGROUND SEWER GRAVITY LINE
- FM UNDERGROUND SEWER FORCEMAIN LINE
- W UNDERGROUND WATER LINE
- E UNDERGROUND POWER LINE
- T UNDERGROUND TELEPHONE LINE

LEGEND (PROPOSED UTILITIES):

- W WATER PIPE
- SD STORMWATER PIPE
- FOUNDATION DRAIN OR UNDERDRAIN
- BIO-FILTRATION SWALE
- ROCK-LINED SWALE
- SHEET FLOW DISPERSION AREA
- CATCH BASIN, TYPE 1
- CATCH BASIN, TYPE 2
- DRINKING FOUNTAIN



0 30 60  
SCALE IN FEET

NOTES:

1. SURVEY PROVIDED BY DHA, DATED JUNE 2017.
2. HORIZONTAL DATUM: WASHINGTON STATE PLANE NORTH ZONE, NAD 83, U.S. FEET.
3. VERTICAL DATUM: NAVD 88
4. SEE SHEETS E-1 AND E-2 FOR ELECTRIC PLANS.
5. SEE SHEETS I-1, I-2, AND I-3 FOR IRRIGATION PLANS.
6. DRAWINGS ARE INTENDED TO BE VIEWED IN COLOR. SOME INFORMATION WILL BE LOST WITH BLACK AND WHITE VIEWING.

APPROVED FOR CONSTRUCTION  
BY: [Signature]  
R/W PERMIT NO. NA  
DATE 10/29/2020  
PFN: 19-103913LDA

100% CONSTRUCTION DRAWINGS/BID SET

GENERAL UTILITY NOTES:

1. FOR DEMOLITION OF EXISTING UTILITIES, SEE DRAWINGS D-1 THROUGH D-3.
2. EXISTING UTILITIES - THE CONTRACTOR SHALL FIELD VERIFY THE DEPTH, LOCATION, SIZE, AND MATERIAL OF EXISTING UTILITIES PRIOR TO CONSTRUCTION, AS OUTLINED IN THE SPECIFICATIONS AND IN THE EXISTING UTILITY NOTES ON SHEET G-3. THE CONTRACTOR SHALL POT HOLE TO VERIFY THE DEPTH, LOCATION, SIZE, AND MATERIAL OF EXISTING BURIED UTILITIES. RECOMMENDED POT HOLE LOCATIONS ARE SHOWN ON THESE DRAWINGS FOR GUIDANCE, BUT ADDITIONAL OR DIFFERENT POT HOLES MAY NEED TO BE COMPLETED TO MEET THESE REQUIREMENTS. WHERE POT HOLLING INDICATES A POTENTIAL CONFLICT AT A UTILITY CROSSING, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER'S REPRESENTATIVE.
3. FOR UTILITY STORM DRAIN ELEVATIONS, SEE STORM DRAIN PROFILES ON SHEET CU-3.
4. PIPE ZONE BEDDING AND BACKFILL SHALL BE PER ⑧
5. PARK WATER METER SHOWN ON SHEET EC-3.
6. FOR ELECTRICAL, SEE SHEET E-1.



REVISIONS				
REV	DATE	BY	APP'D	DESCRIPTION

DESIGNED BY: PH  
DRAWN BY: CH/TG  
CHECKED BY: DR  
APPROVED BY: PH  
SCALE: 1" = 30'  
DATE: SEPTEMBER 2020

MEADOWDALE BEACH PARK  
AND ESTUARY DESIGN  
PFN 19-103913LDA

UTILITY PLAN (1 OF 2)

CU-1

SHEET # 43 OF 81



SECTION 5, TOWNSHIP 27 N., RANGE 4 E

**UTILITY LOCATIONS:**  
ALL UTILITY WORK WITHIN THE BNSF RIGHT-OF-WAY INCLUDING, BUT NOT LIMITED TO, LOCATION, PROTECTION, INSTALLATION, AND RELOCATION OF UTILITIES SHALL COMPLY WITH BNSF'S UTILITY ACCOMMODATION MANUAL (HTTP://WWW.BNSF.COM/COMMUNITIES/FAQS/PDF/UTILITY.PDF).

FOR ALL WORK OUTSIDE THE BNSF RIGHT-OF-WAY, THE CONTRACTOR SHALL CALL THE ONE-CALL UTILITY CENTER AT 811 OR 1-800-424-5555 FOR UTILITY LOCATIONS NOT LESS THAN TWO (2) BUSINESS DAYS BEFORE DEMOLITION WORK. FOR ADDITIONAL REQUIREMENTS, SEE SHEET G-3.

STANDARD UTILITY DETAILS			
SYMBOL	AGENCY	STANDARD DETAIL	DESCRIPTION
1	SNOHOMISH CO. EDDS	5-120	CATCH BASIN DETAILS
2	WSDOT	B-05.20-02	CATCH BASIN TYPE 1
3	WSDOT	B-10.20-02	CATCH BASIN TYPE 2
4	WSDOT	B-30.20-04	RECTANGULAR SOLID METAL COVER
5	WSDOT	B-30.30-03	RECTANGULAR VANED GRATE
6	WSDOT	B-30.50-03	RECTANGULAR HERRINGBONE GRATE
7	WSDOT	B-30.70-04	CIRCULAR FRAME (RING) AND COVER
8	WSDOT	B-55.20-00	PIPE ZONE BEDDING AND BACKFILL
9	CITY OF EDMONDS	WA-150	CONCRETE THRUST BLOCKING
10	CITY OF EDMONDS	WA-160A	REDUCED PRESSURE BACKFLOW ASSEMBLY 2" AND SMALLER
11	CITY OF EDMONDS	WA-160B	HOT BOX ASSEMBLY FOR REDUCED PRESSURE BACKFLOW ASSEMBLY

LEGEND:

--- PARK BOUNDARY

--- PROJECT BOUNDARY

--- BNSF RIGHT OF WAY

WETLAND TO BE PROTECTED

TREE TO REMAIN

PLAT CENTERLINE FENCING

LEGEND (EXISTING UTILITIES):

SD UNDERGROUND STORM LINE

SS UNDERGROUND SEWER GRAVITY LINE

FM UNDERGROUND SEWER FORCEMAIN LINE

W UNDERGROUND WATER LINE

E UNDERGROUND POWER LINE

T UNDERGROUND TELEPHONE LINE

LEGEND (PROPOSED UTILITIES):

W WATER PIPE

SD STORMWATER PIPE

FOUNDATION DRAIN OR UNDERDRAIN

BIO-FILTRATION SWALE

ROCK-LINED SWALE

CATCH BASIN, TYPE 1

CATCH BASIN, TYPE 2

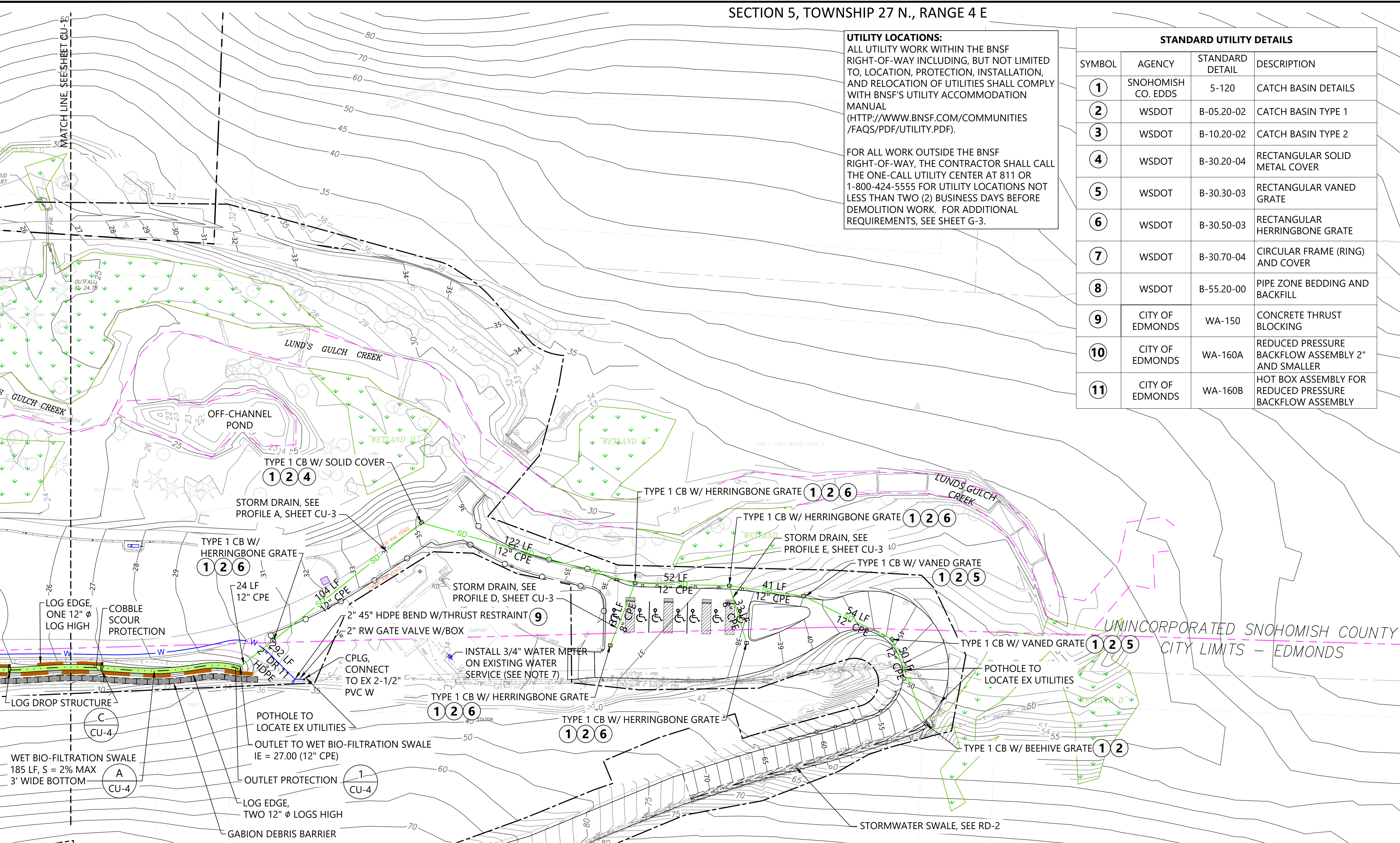
DRINKING FOUNTAIN

NORTH

0 30 60

SCALE IN FEET

- NOTES:
1. SURVEY PROVIDED BY DHA, DATED JUNE 2017.
  2. HORIZONTAL DATUM: WASHINGTON STATE PLANE NORTH ZONE, NAD 83, U.S. FEET.
  3. VERTICAL DATUM: NAVD 88
  4. SEE SHEETS E-1 AND E-2 FOR ELECTRIC PLANS.
  5. SEE SHEETS I-1, I-2, AND I-3 FOR IRRIGATION PLANS.
  6. DRAWINGS ARE INTENDED TO BE VIEWED IN COLOR. SOME INFORMATION WILL BE LOST WITH BLACK AND WHITE VIEWING.
  7. CONTRACTOR SHALL PROVIDE CONTINUOUS UTILITY SERVICE AND DRIVEWAY ACCESS TO RANGER RESIDENCE.



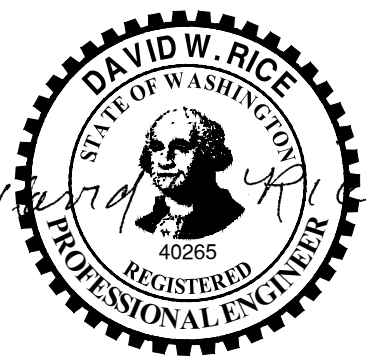
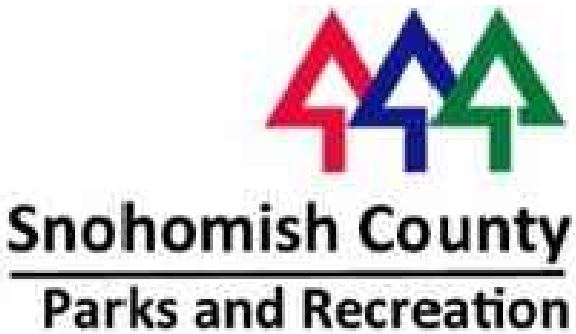
- GENERAL UTILITY NOTES:**
1. FOR DEMOLITION OF EXISTING UTILITIES, SEE DRAWINGS D-1 THROUGH D-3.
  2. EXISTING UTILITIES - THE CONTRACTOR SHALL FIELD VERIFY THE DEPTH, LOCATION, SIZE, AND MATERIAL OF EXISTING UTILITIES PRIOR TO CONSTRUCTION, AS OUTLINED IN THE SPECIFICATIONS AND IN THE EXISTING UTILITY NOTES ON SHEET G-3. THE CONTRACTOR SHALL POTHOLE TO VERIFY THE DEPTH, LOCATION, SIZE, AND MATERIAL OF EXISTING BURIED UTILITIES. RECOMMENDED POT HOLE LOCATIONS ARE SHOWN ON THESE DRAWINGS FOR GUIDANCE, BUT ADDITIONAL OR DIFFERENT POTHOLES MAY NEED TO BE COMPLETED TO MEET THESE REQUIREMENTS. WHERE POT HOLING INDICATES A POTENTIAL CONFLICT AT A UTILITY CROSSING, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER'S REPRESENTATIVE.
  3. FOR UTILITY STORM DRAIN ELEVATIONS, SEE STORM DRAIN PROFILES ON SHEET CU-3.
  4. PIPE ZONE BEDDING AND BACKFILL SHALL BE PER 8
  5. PARK WATER METER SHOWN ON SHEET EC-3.
  6. FOR ELECTRICAL, SEE SHEET E-1.

7. WATER METER ASSEMBLY SHALL INCLUDE THE FOLLOWING:
- WATER METER: 3/4" BADGER RECORDALL DISC METER, OR APPROVED EQUAL, COMPLYING WITH AWWA C-700.
  - METER BOX: CARSON 1324 WITH DUCTILE IRON COVER, OR APPROVED EQUAL.
  - METER SETTER: 3/4" BRASS METER SETTER WITH ANGLE BALL VALVE, MIN 15" HIGH, WITH DUAL PURPOSE UNIONS ON THE INLET AND OUTLET; FORD METER BOX VB273-15-NL, OR APPROVED EQUAL.
  - CONNECTIONS TO EX PIPE: PROVIDE PACK JOINT FITTINGS TO CONNECT THE METER SETTER TO THE EXISTING 3/4" SCHEDULE 40 PVC PIPE.

APPROVED FOR CONSTRUCTION  
BY: [Signature]  
R/W PERMIT NO. NA  
DATE 10/29/2020  
PFN: 19-103913LDA

100% CONSTRUCTION DRAWINGS/BID SET

k:\Projects\0723-snohomish-county\meadowdale-park\Construction Plans\0723-PL-Utility Plan.dwg 44 CU-2  
Sep 15, 2020 9:06am clevett



REVISIONS					
REV	DATE	BY	APP'D	DESCRIPTION	

DESIGNED BY: PH  
DRAWN BY: CH/TG  
CHECKED BY: DR  
APPROVED BY: PH  
SCALE: 1" = 30'  
DATE: SEPTEMBER 2020

MEADOWDALE BEACH PARK  
AND ESTUARY DESIGN  
PFN 19-103913LDA

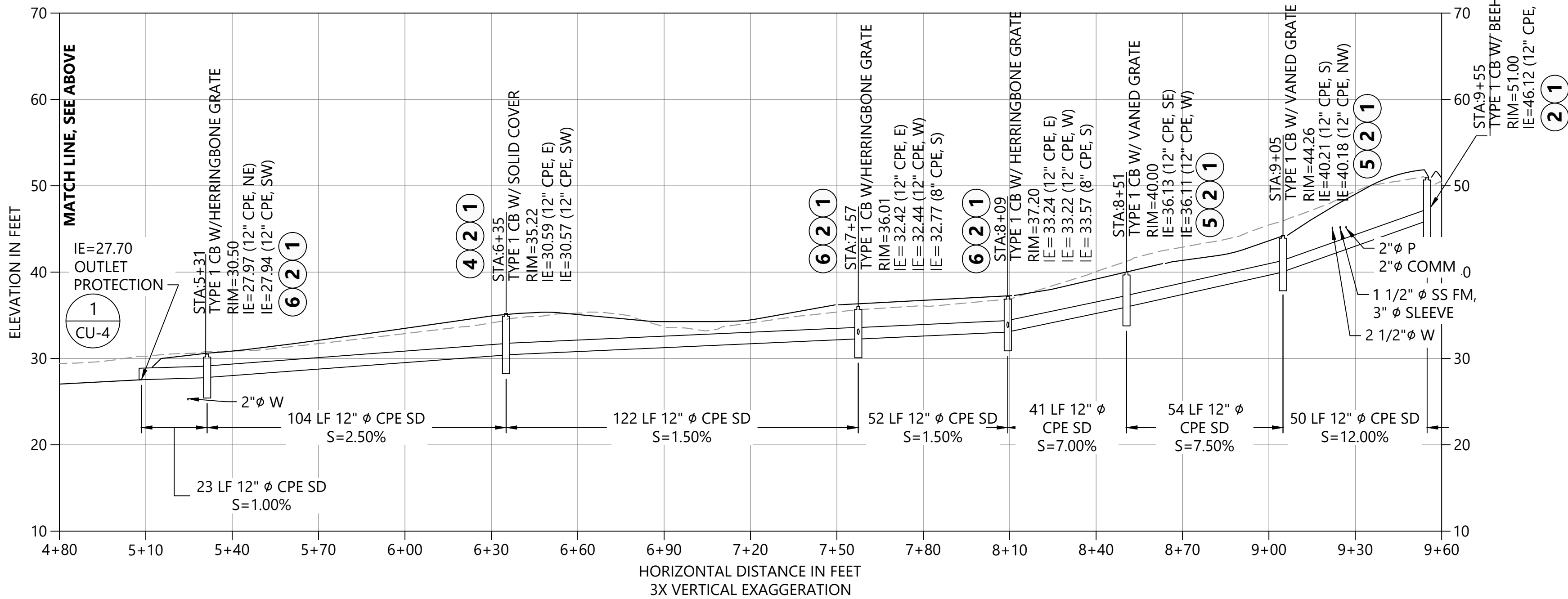
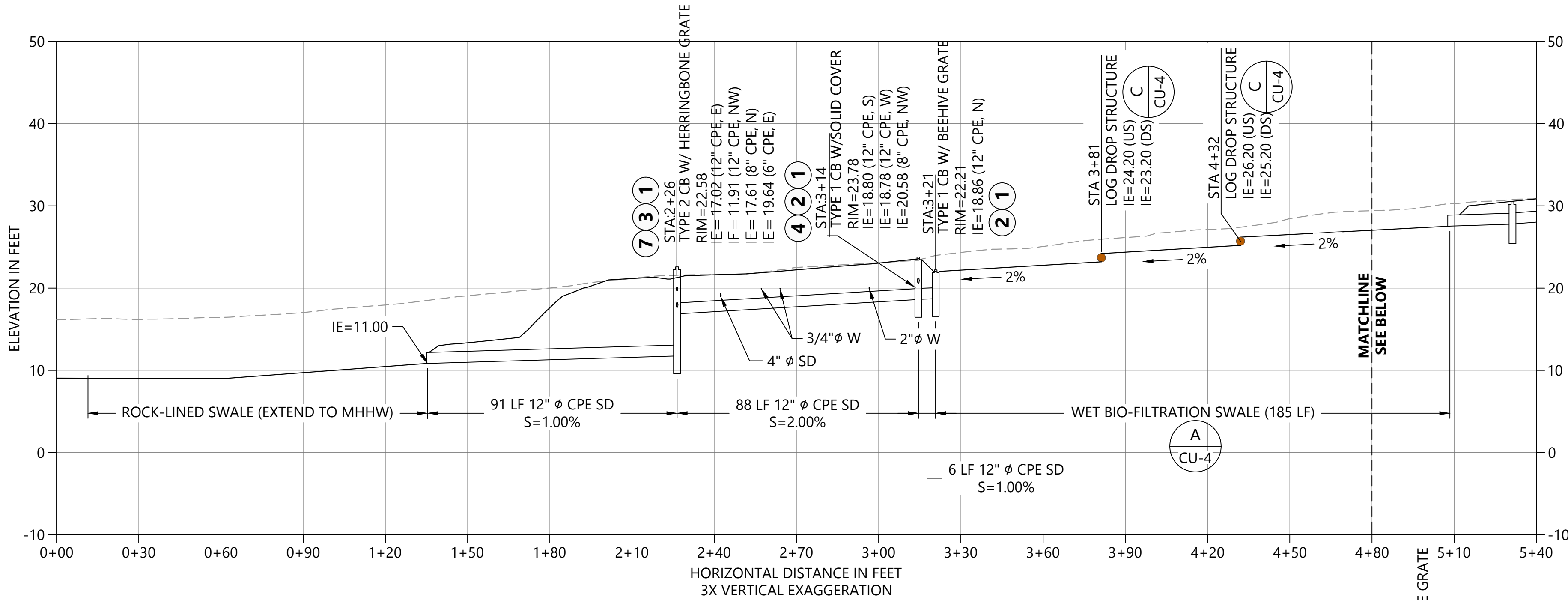
UTILITY PLAN (2 OF 2)

CU-2

SHEET # 44 OF 81



SECTION 5, TOWNSHIP 27 N., RANGE 4 E



**A** STORM DRAIN PROFILE  
CU-1/CU-2  
HORIZ. SCALE: 1" = 30'  
VERT. SCALE: 1" = 10'



NOTES:

1. SURVEY PROVIDED BY DHA, DATED JUNE 2017
2. HORIZONTAL DATUM: WASHINGTON STATE PLANE NORTH ZONE, NAD 83, U.S. FEET.
3. VERTICAL DATUM: NAVD 88
4. SEE SHEETS CU-1 AND CU-2 FOR STANDARD UTILITY DETAIL LEGEND.

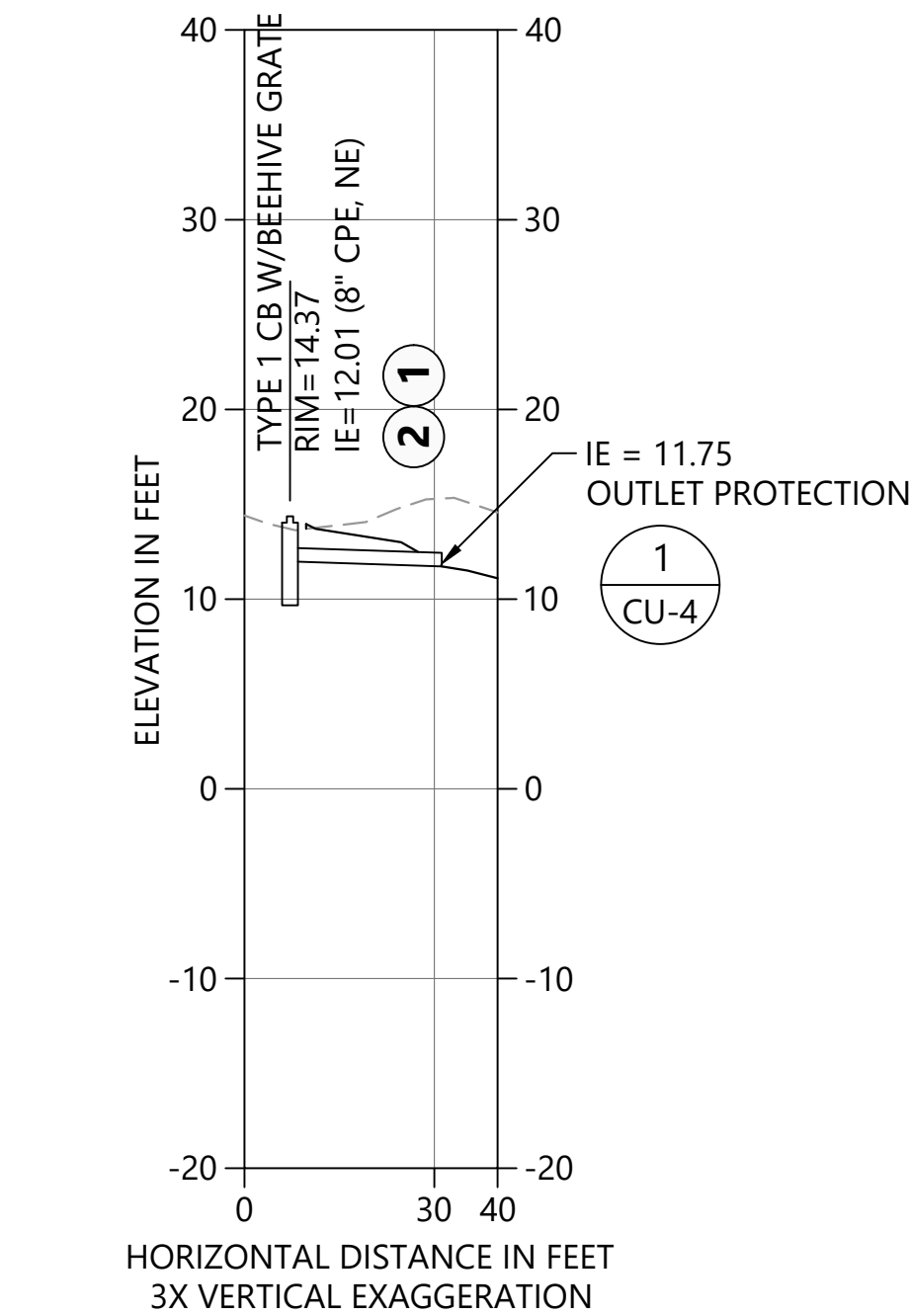
UTILITY LOCATIONS:

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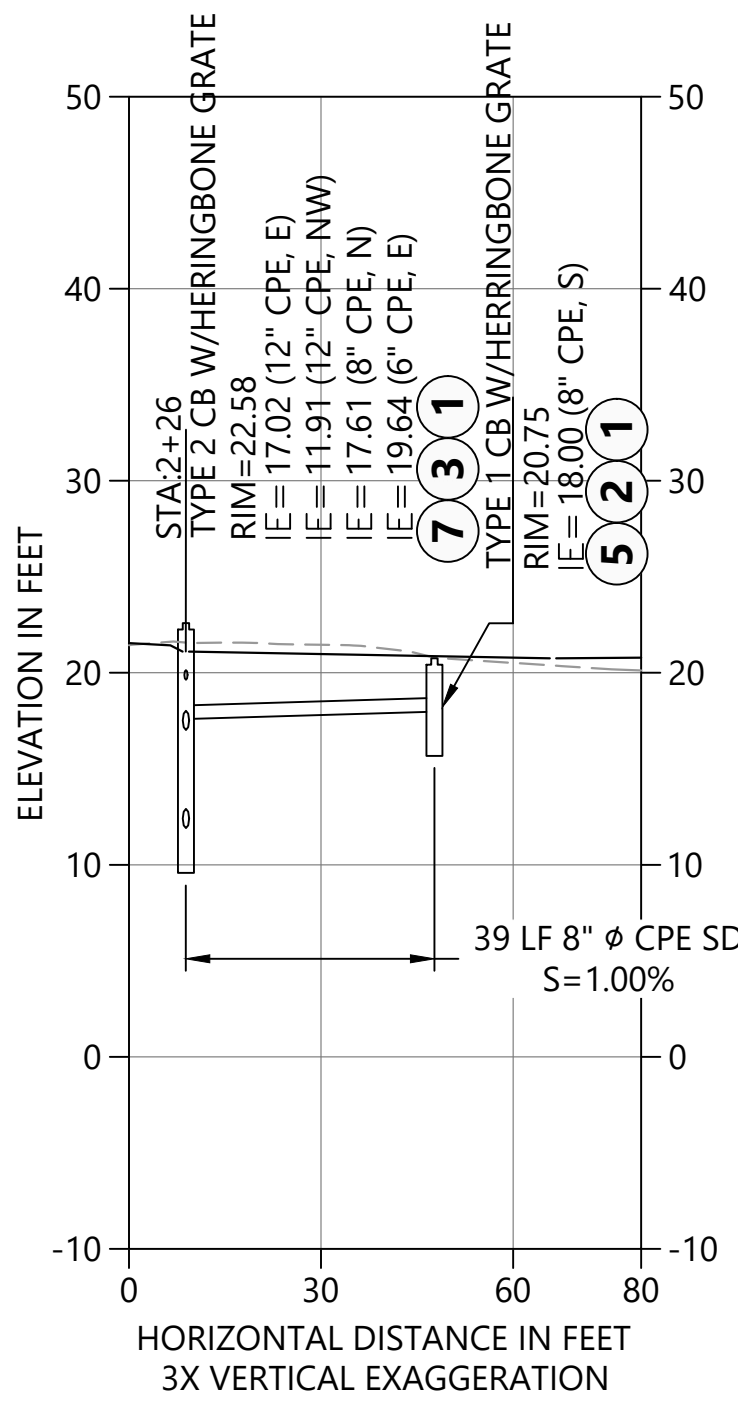
FOR ALL WORK OUTSIDE THE BNSF RIGHT-OF-WAY, THE CONTRACTOR SHALL CALL THE ONE-CALL UTILITY CENTER AT 811 OR 1-800-424-5555 FOR UTILITY LOCATIONS NOT LESS THAN TWO (2) BUSINESS DAYS BEFORE DEMOLITION WORK. FOR ADDITIONAL REQUIREMENTS, SEE SHEET G-3.

LEGEND, PROFILE

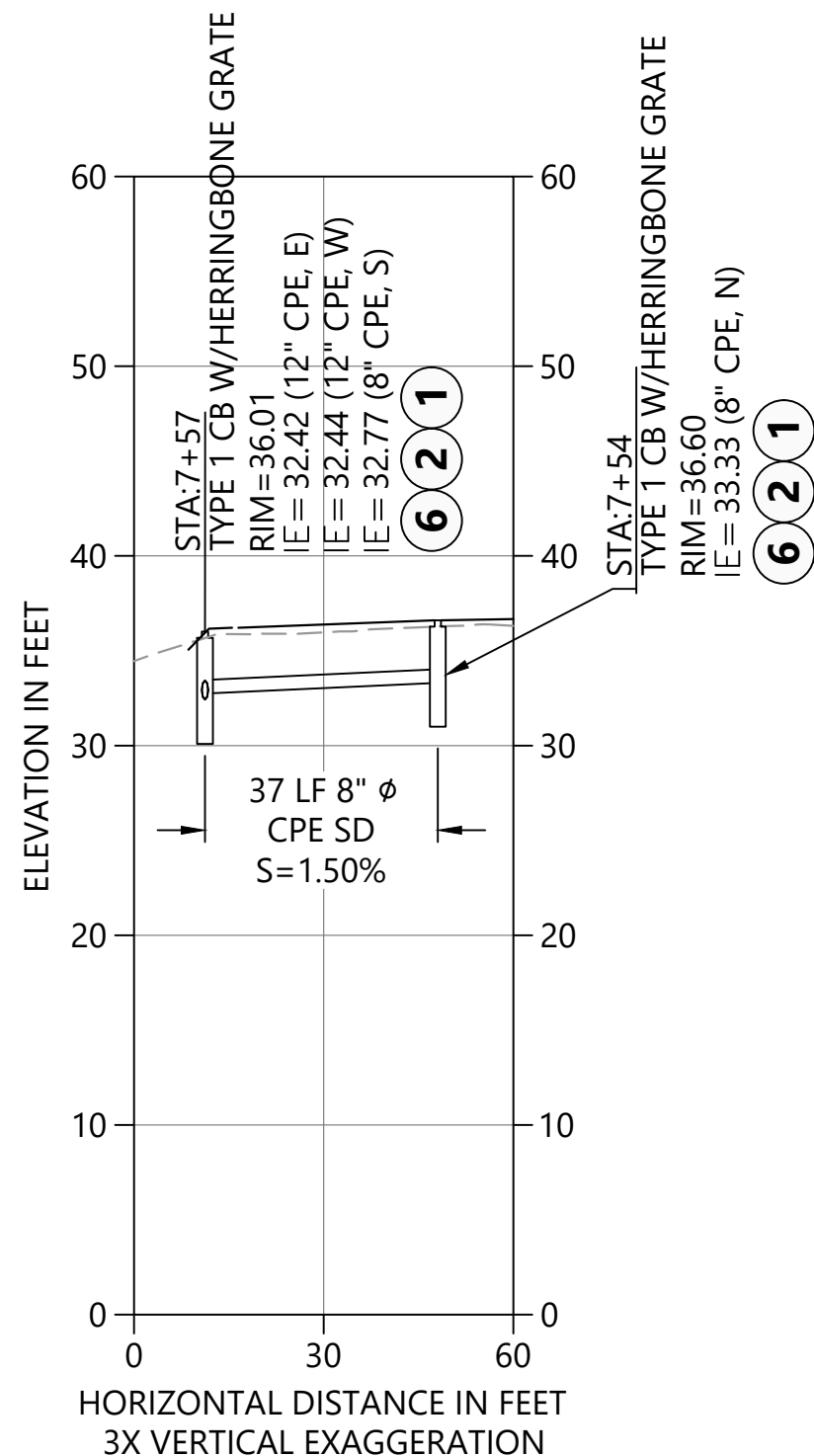
--- EXISTING GRADE  
— PROPOSED GRADE



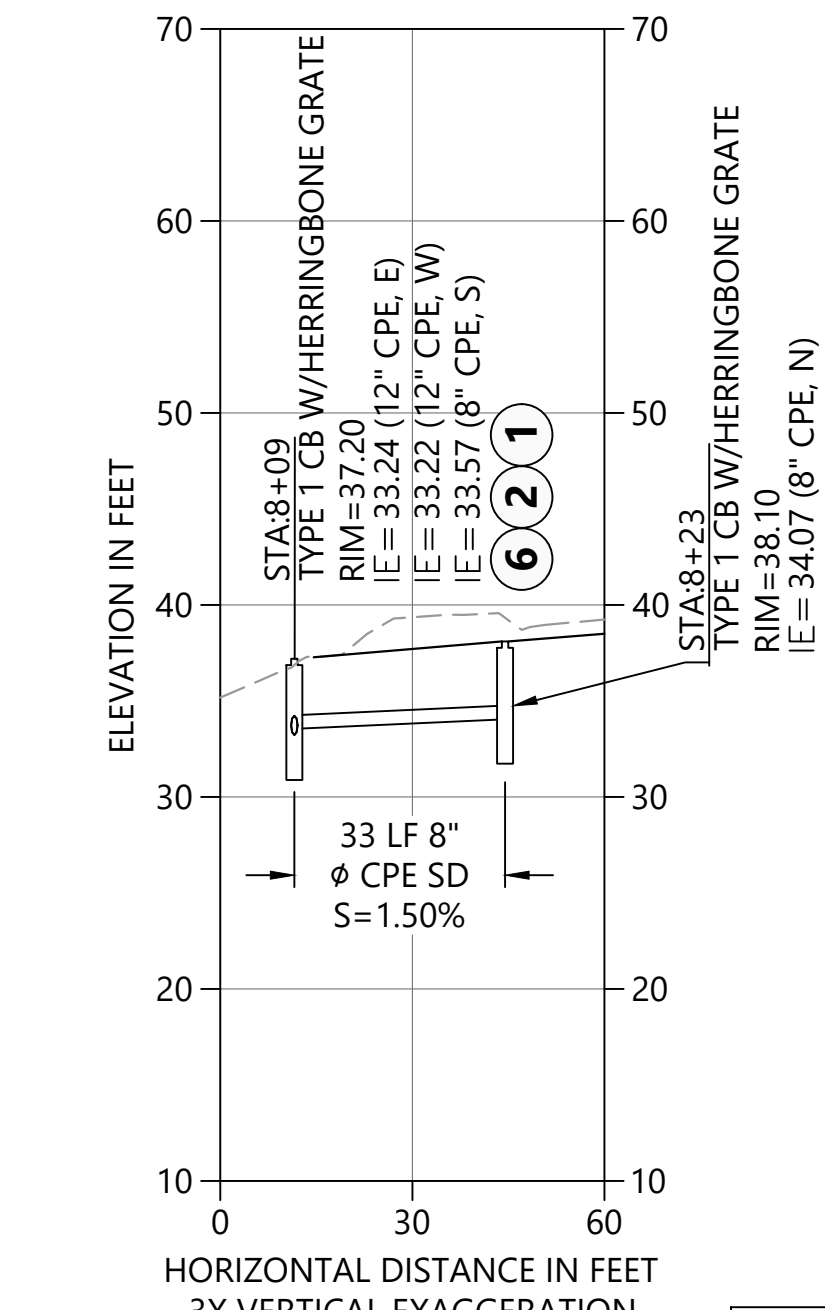
**B** STORM DRAIN PROFILE  
CU-1  
HORIZ. SCALE: 1" = 30'  
VERT. SCALE: 1" = 10'



**C** STORM DRAIN PROFILE  
CU-1  
HORIZ. SCALE: 1" = 30'  
VERT. SCALE: 1" = 10'



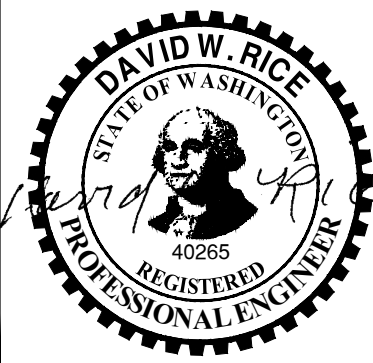
**D** STORM DRAIN PROFILE  
CU-2  
HORIZ. SCALE: 1" = 30'  
VERT. SCALE: 1" = 10'



**E** STORM DRAIN PROFILE  
CU-2  
HORIZ. SCALE: 1" = 30'  
VERT. SCALE: 1" = 10'

APPROVED FOR CONSTRUCTION  
R/W PERMIT NO. NA  
DATE 10/29/2020  
PFN: 19-103913LDA

100% CONSTRUCTION DRAWINGS/BID SET



REVISIONS				
REV	DATE	BY	APP'D	DESCRIPTION

DESIGNED BY: PH  
DRAWN BY: CH/TG  
CHECKED BY: DR  
APPROVED BY: PH  
SCALE: AS NOTED  
DATE: SEPTEMBER 2020

MEADOWDALE BEACH PARK  
AND ESTUARY DESIGN  
PFN 19-103913LDA

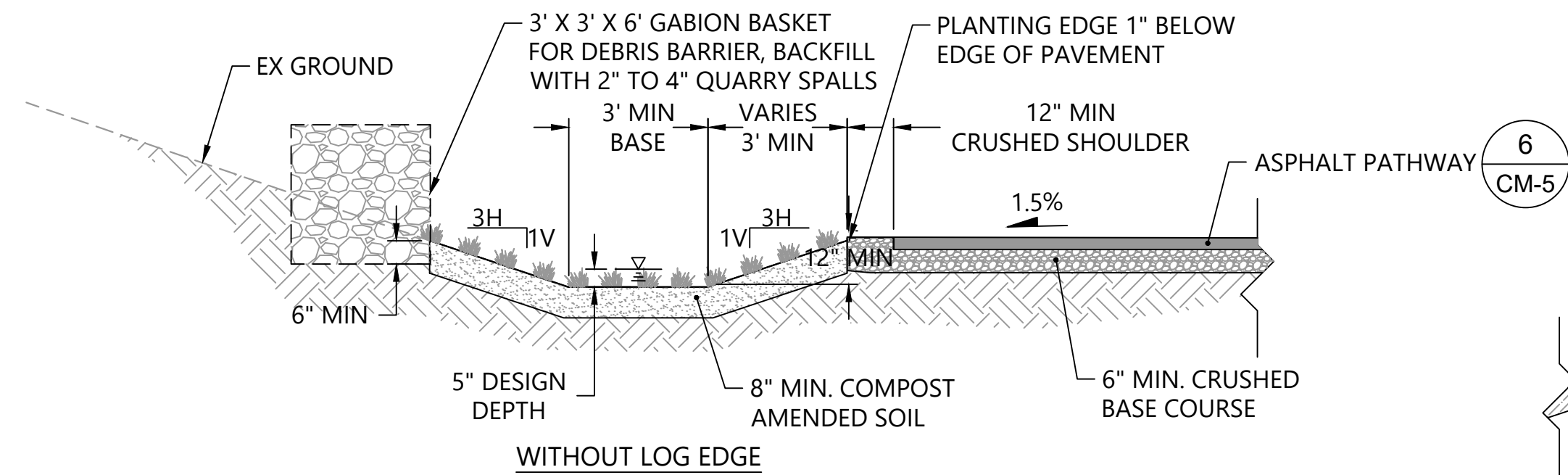
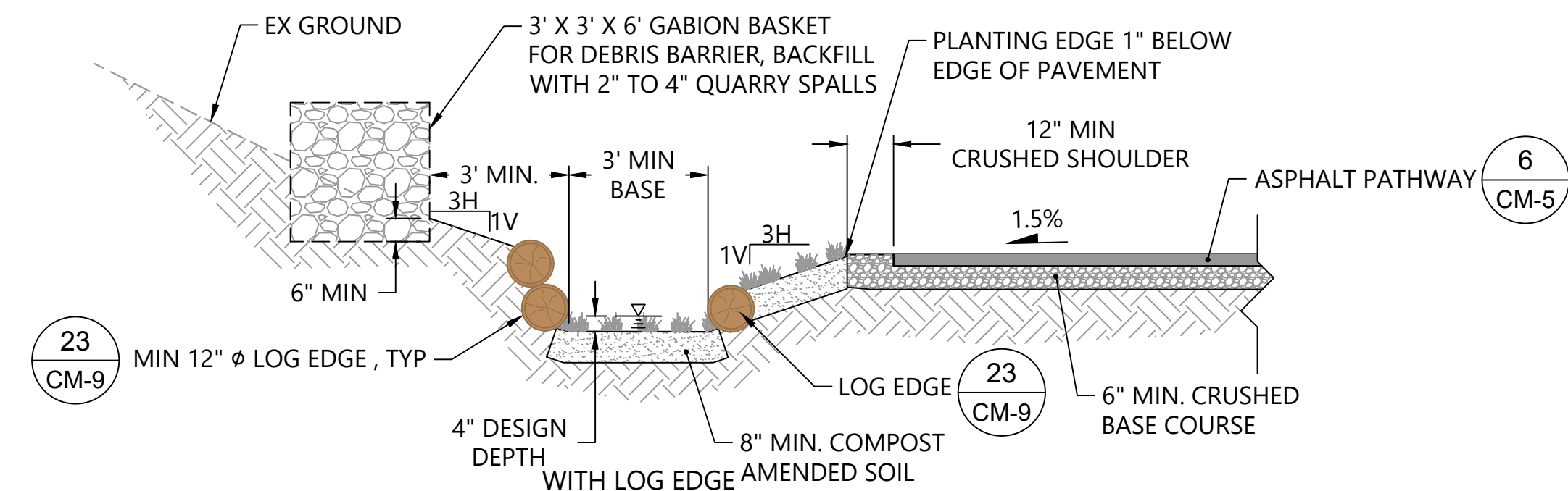
STORM DRAIN PROFILE

CU-3

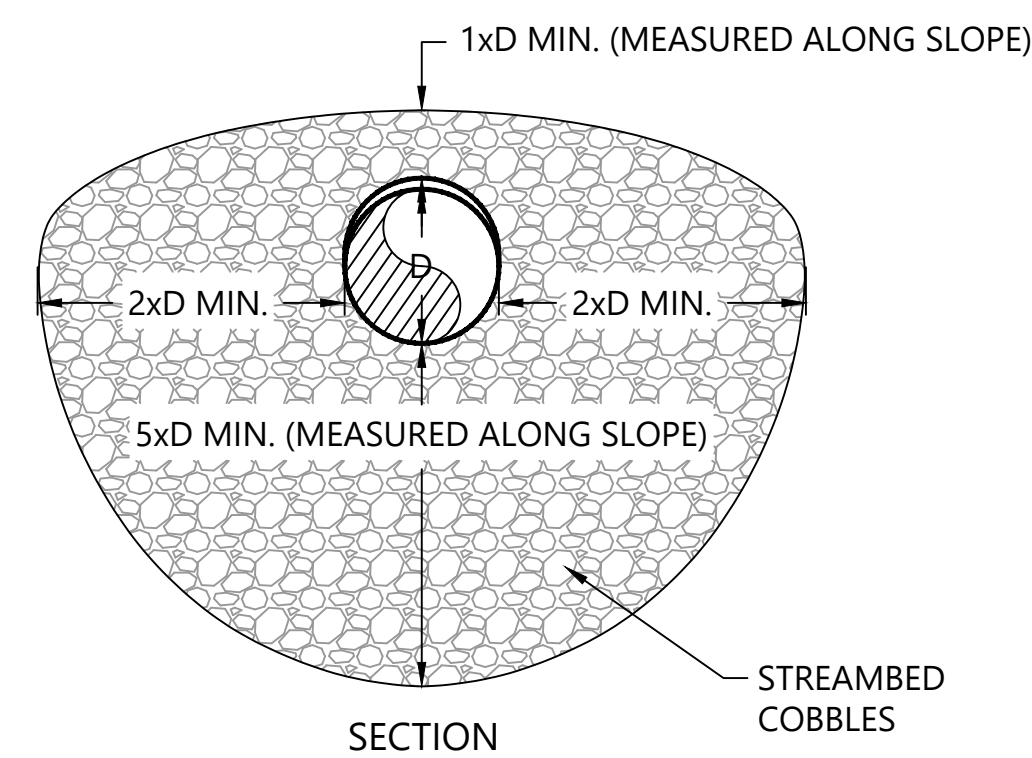
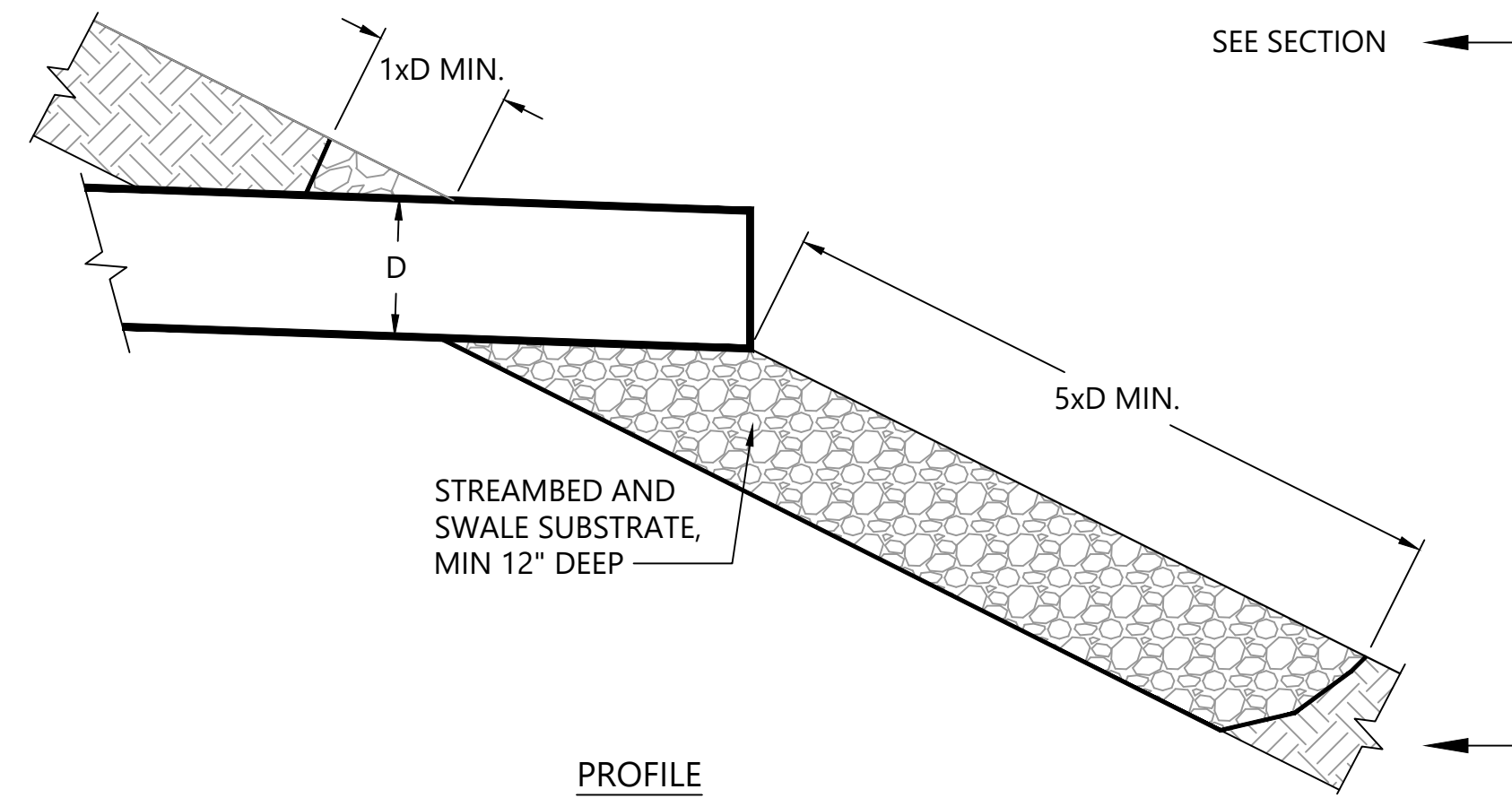
SHEET # 45 OF 81



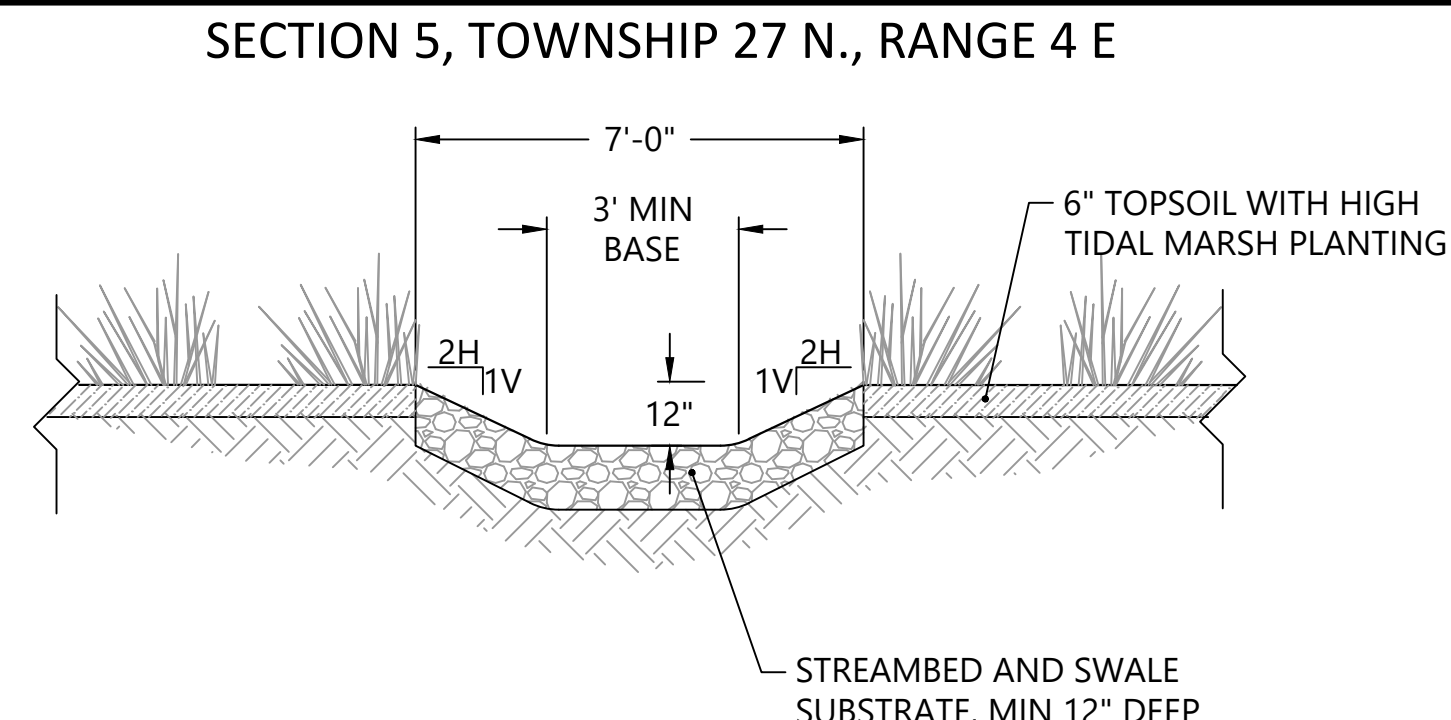
Sep 15, 2020 9:06am chiewett k:\Projects\0722-snohomish-county\meadowdale-park\construction-plans\0723-PL-Utility Plan.dwg 46 CU-4



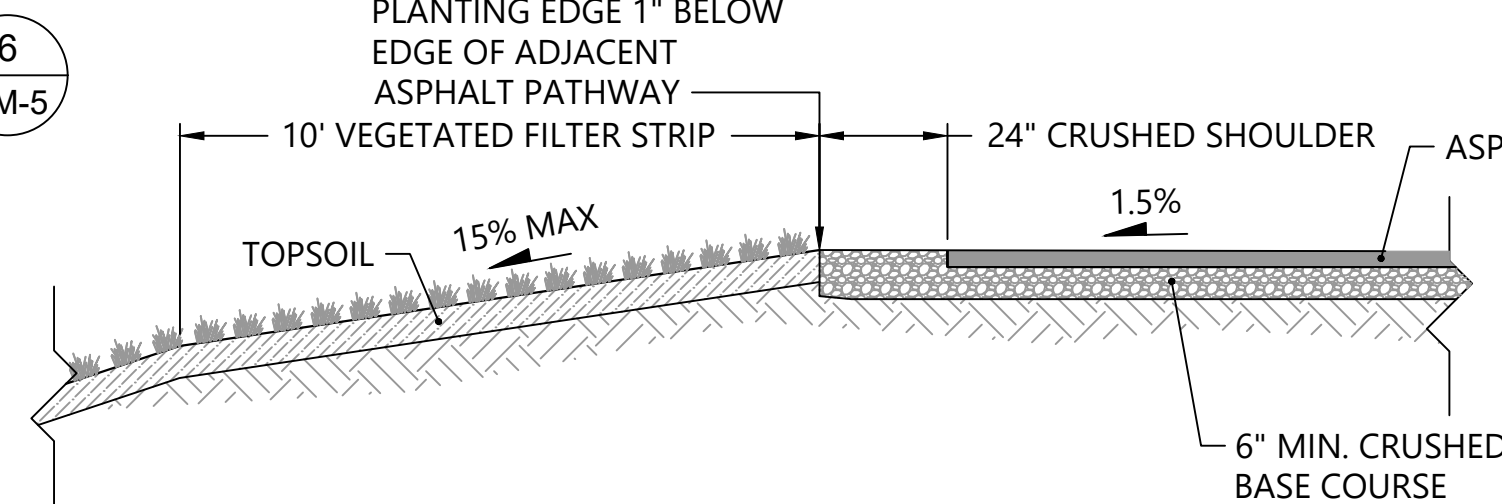
A TYPICAL WET BIO-FILTRATION SWALE SECTION  
CU-1 SCALE: 1" = 3'



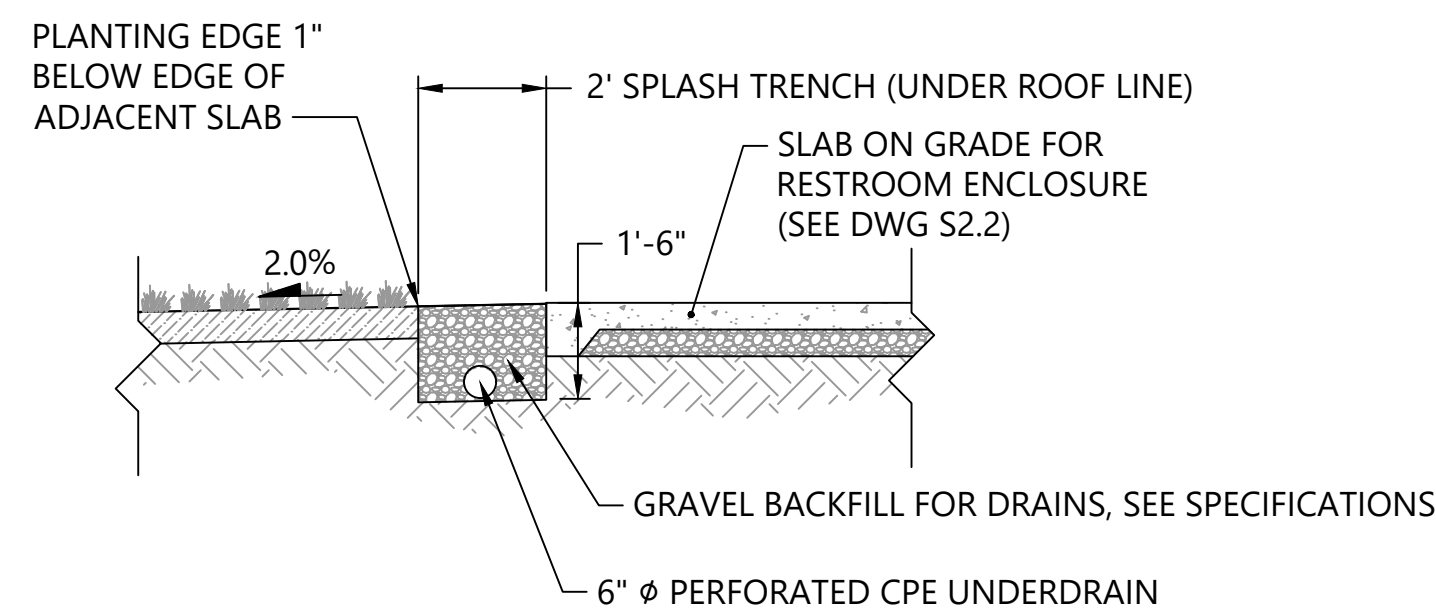
1 OUTLET PROTECTION  
CU-1 SCALE: NTS



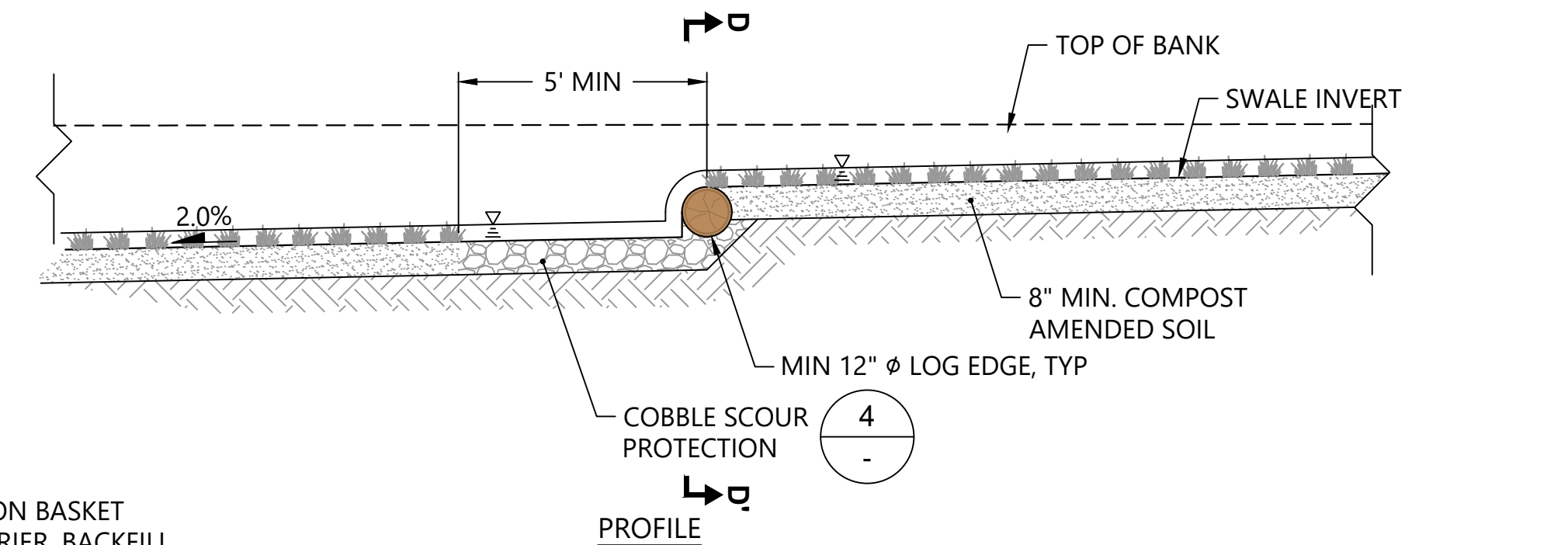
B TYPICAL OUTFALL SWALE SECTION  
CU-1 SCALE: 1" = 3'



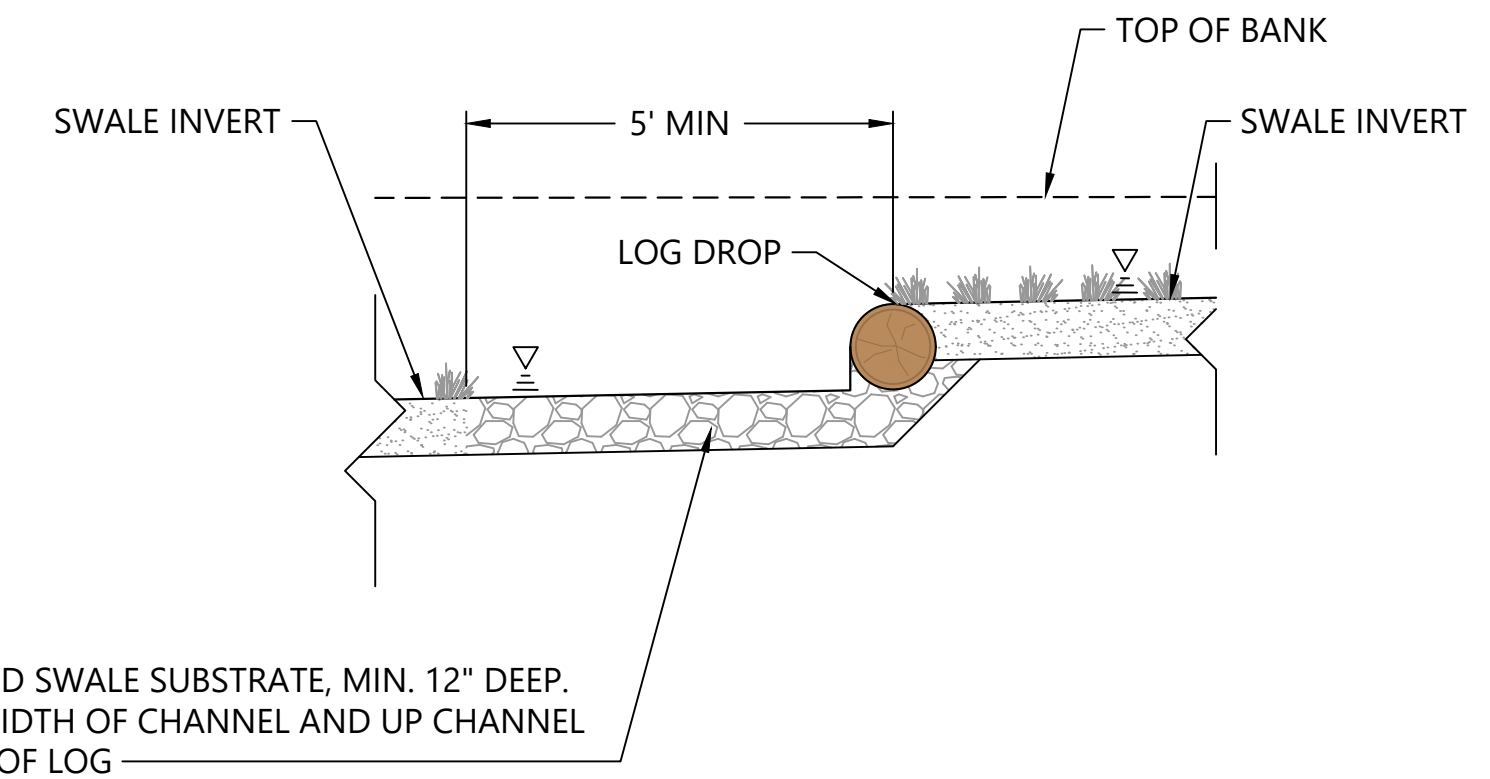
2 SHEET FLOW DISPERSION AREA  
CU-1 SCALE: 1" = 3'



3 SPLASH TRENCH  
CU-1 SCALE: 1" = 3'



C WET BIO-FILTRATION SWALE - LOG DROP DETAIL  
CU-1 SCALE: 1" = 3'



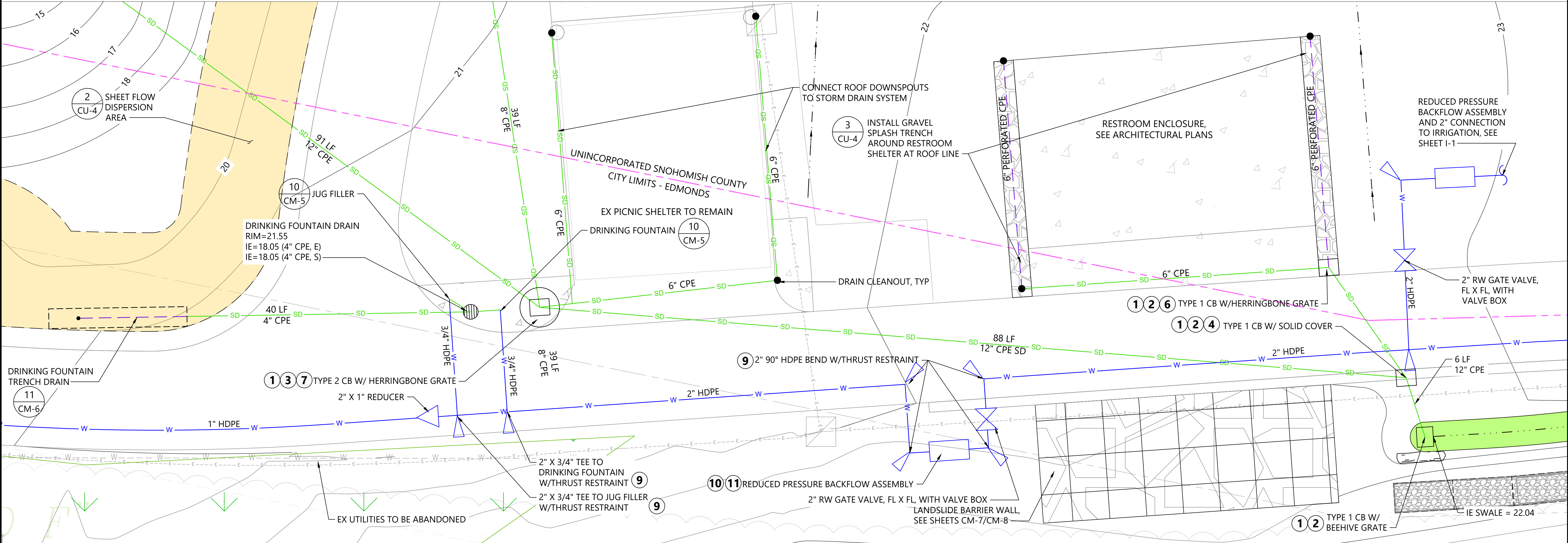
4 COBBLE SCOUR PROTECTION  
CU-1 SCALE: NTS

**UTILITY LOCATIONS:**  
ALL UTILITY WORK WITHIN THE BNSF RIGHT-OF-WAY INCLUDING, BUT NOT LIMITED TO, LOCATION, PROTECTION, INSTALLATION, AND RELOCATION OF UTILITIES SHALL COMPLY WITH BNSF'S UTILITY ACCOMMODATION MANUAL ([HTTP://WWW.BNSF.COM/COMMUNITIES/FAQS/PDF/UTILITY.PDF](http://www.bnsf.com/communities/faqs/pdf/utility.pdf)).  
FOR ALL WORK OUTSIDE THE BNSF RIGHT-OF-WAY, THE CONTRACTOR SHALL CALL THE ONE-CALL UTILITY CENTER AT 811 OR 1-800-424-5555 FOR UTILITY LOCATIONS NOT LESS THAN TWO (2) BUSINESS DAYS BEFORE DEMOLITION WORK. FOR ADDITIONAL REQUIREMENTS, SEE SHEET G-3.

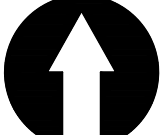
APPROVED FOR CONSTRUCTION  
BY: *[Signature]*  
RW PERMIT NO. NA  
DATE 10/29/2020  
PFN: 19-103913LDA

100% CONSTRUCTION DRAWINGS/BID SET





1  
CU-1  
DETAIL  
SCALE: 1" = 5'

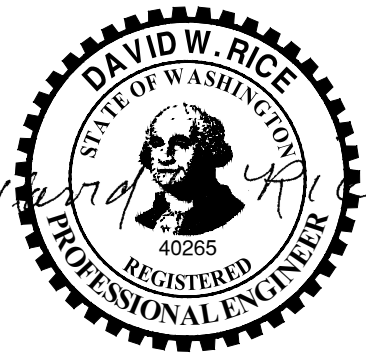


0 5 10  
SCALE IN FEET

**UTILITY LOCATIONS:**  
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APPROVED FOR CONSTRUCTION  
BY: *[Signature]*  
R/W PERMIT NO. NA  
DATE 10/29/2020  
PFN: 19-103913LDA

100% CONSTRUCTION DRAWINGS/BID SET



REVISIONS					DESCRIPTION
REV	DATE	BY	APP'D		

DESIGNED BY: PH  
DRAWN BY: CH/TG  
CHECKED BY: DR  
APPROVED BY: PH  
SCALE: AS NOTED  
DATE: SEPTEMBER 2020

MEADOWDALE BEACH PARK  
AND ESTUARY DESIGN  
PFN 19-103913LDA

DRAINAGE DETAILS

CU-5

SHEET # 46A OF 81



C:\Users\Laura\Desktop\Meadowdale\100% Design\Drawings\A-1 General.dwg A-1.0  
Sep 01, 2020 9:50am \$GETVAR(??)

GENERAL NOTES

1. ALL WORK SHALL BE IN CONFORMANCE WITH APPLICABLE CODES AND LOCAL BUILDING REQUIREMENTS, INCLUDING BUT NOT LIMITED TO THE 2015 EDITION OF THE IBC AND THE 2015 INTERNATIONAL ENERGY CONSERVATION CODE AS ADOPTED BY WA STATE.
2. ALL APPLICABLE CODES, ORDINANCES AND MINIMUM STRUCTURAL REQUIREMENTS TAKE PRECEDENCE OVER DRAWINGS AND NOTES.
3. CONTRACTOR SHALL VERIFY ALL DIMENSIONS SHOWN ON THE DRAWINGS BEFORE COMMENCING WITH WORK. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER AND ARCHITECT PRIOR TO STARTING ANY CONSTRUCTION OF THE AREA CONCERNED. DO NOT SCALE DRAWINGS
4. DIMENSIONS ARE TO FACE OF FRAMING OR CONCRETE U.O.N.
5. PARTITIONS AND WALLS NOT OTHERWISE DIMENSIONED SHALL BE LOCATED FLUSH WITH REFERENCE TO ADJACENT WALL FACE.
6. WHERE ON ANY OF THE DRAWINGS OR DETAILS, A PORTION OF THE WORK IS SHOWN AND/OR DETAILED, AND THE REMAINDER IS INDICATED IN OUTLINE, THE PARTS SHOWN AND/OR DETAILED SHALL APPLY TO ALL OTHER LIKE PORTIONS OF THE WORK.
7. PRIOR TO AND DURING THE WORK, CONTRACTOR SHALL VERIFY CONDITIONS; ANY CONDITIONS INCONSISTENT OR PROBLEMATIC WITH REGARD TO THE INTENT OF THE DRAWINGS SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER AND ARCHITECT PRIOR TO STARTING OR CONTINUING WORK IN THE AREA CONCERNED.
8. COORDINATE AND PROVIDE REQUIRED PENETRATIONS (AND PATCHING OF EXISTING TO MATCH) WITH INDIVIDUAL SUBCONTRACTORS TO SUIT NEW WORK.
9. VERTICAL DIMENSIONS ARE TYPICALLY REFERENCED FROM STRUCTURAL SLAB U.N.O.
10. AT FIRE RATED WALLS OR CEILING ASSEMBLIES WHERE PENETRATIONS FOR MECH., ELECT., OR PLUMBING OCCUR, PROVIDE APPROVED THRU PENETRATION FIRE STOP ASSEMBLIES. MAINTAIN REQUIRED RATING OF ASSEMBLIES.
11. CONTRACTOR TO ASSUME ALL MATERIALS AS NEW UNLESS NOTED AS "EXISTING".
12. PRESSURE TREAT ALL WOOD IN CONTACT WITH CONCRETE.
13. FLASH OPENINGS WITH MIN. 26 GA. STAINLESS STEEL TO ACCEPTABLE INDUSTRY STANDARDS. ALL FLASHING LAP SEAMS TO BE 12" MIN. W/ 2 BEADS OF SEALANT.
14. CONTRACTOR TO VERIFY LOCATION OF ALL EXISTING UTILITIES THROUGHOUT SITE PRIOR TO EXCAVATION.
15. BACKPRIME ALL EXTERIOR WOOD TRIM MATERIAL WHERE PAINTED, SEALER WHERE NOT PAINTED (ALL SIDES, EDGES AND CUT ENDS) PER WWPA AND WRCLA GUIDELINES.
16. WEATHER RESISTIVE BARRIER TO HAVE OVERLAP AS DIRECTED BY MFG.
17. WEATHER RESISTIVE BARRIER TO BE INSTALLED OVER TOP PLATE PRIOR TO SETTING OF RAFTERS OR ROOF TRUSSES, S.S. FASTENERS WHEN IN CONTACT WITH PT WOOD.

18. STAINLESS STEEL NAILS OR FASTENERS TO USED AT ALL APPLICATIONS WHERE NAILS OR FASTENERS ARE EXPOSED TO EXTERIOR.

SCOPE OF WORK

CONSTRUCTION OF NEW COVERED AREA FOR PORTABLE RESTROOMS; REMOVAL AND REPLACEMENT OF EXISTING METAL ROOF PANELS ON EXISTING PICNIC SHELTER, INCLUDING NEW GUTTERS AND DOWNSPOUTS; REMOVAL AND REPLACEMENT OF EXISTING STONE FACING AT COLUMN BASE AT EXISTING PICNIC STRUCTURE.

CODE COMPLIANCE

- 2015 INTERNATIONAL BUILDING CODE (IBC) W/ WA STATE AMENDMENTS
- ICC A117.1-2009 ACCESSIBLE AND USABLE BUILDING FACILITIES
- 2015 WASHINGTON STATE ENERGY CODE (WSEC) (2015 INTERNATIONAL ENERGY CONSERVATION CODE W/ WA STATE AMENDMENTS)
- 2015 INTERNATIONAL FIRE CODE (IFC)
- 2015 NATIONAL ELECTRICAL CODE (NEC)
- 2015 INTERNATIONAL MECHANICAL CODE (IMC)
- 2015 UNIFORM PLUMBING CODE (UPC)

PROPOSED RESTROOM ENCLOSURE

PROPOSED USE	COVERED AREA FOR PORTABLE RESTROOMS
OCCUPANCY	A-3
TYPE OF CONSTRUCTION	VB
SPRINKLER SYSTEM	NO
BUILDING AREA	628 SF COVERED
OCC.LOAD	NA (RESTROOM NOT OCCUPIED AREA)
NUMBER OF STORIES	1 STORY
HEIGHT	14'-2"

FIRE RESISTANCE RATING

STRUCTURAL FRAME	NON-RATED
BEARING WALLS, EXT.	NON-RATED
BEARING WALLS, INT.	NON-RATED
NONBEARING WALLS, EXT.	NON-RATED
NONBEARING WALLS, INT.	NON-RATED
FLOOR CONSTRUCTION	NON-RATED
ROOF CONSTRUCTION	NON-RATED

APPROVED FOR CONSTRUCTION

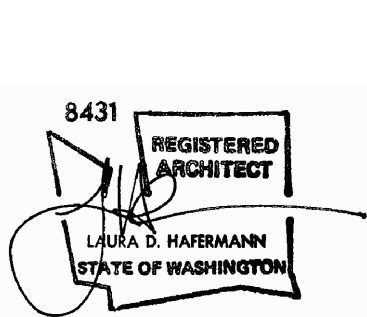
BY: \_\_\_\_\_

R/W PERMIT NO. \_\_\_\_\_

DATE \_\_\_\_\_

ONE INCH  
AT FULL SIZE, IF NOT ONE  
INCH SCALE ACCORDINGLY

100% CONSTRUCTION DRAWINGS/BID SET



REVISIONS					
REV	DATE	BY	APP'D	DESCRIPTION	

DESIGNED BY: SALT STUDIO

DRAWN BY: LH

CHECKED BY: LH

APPROVED BY: LH

SCALE: AS NOTED

DATE: AUGUST 2020

MEADOWDALE BEACH PARK  
AND ESTUARY DESIGN  
PFN 19-103913LDA

ARCHITECTURE GENERAL INFORMATION

A-1.0

SHEET NO. 47 OF 81



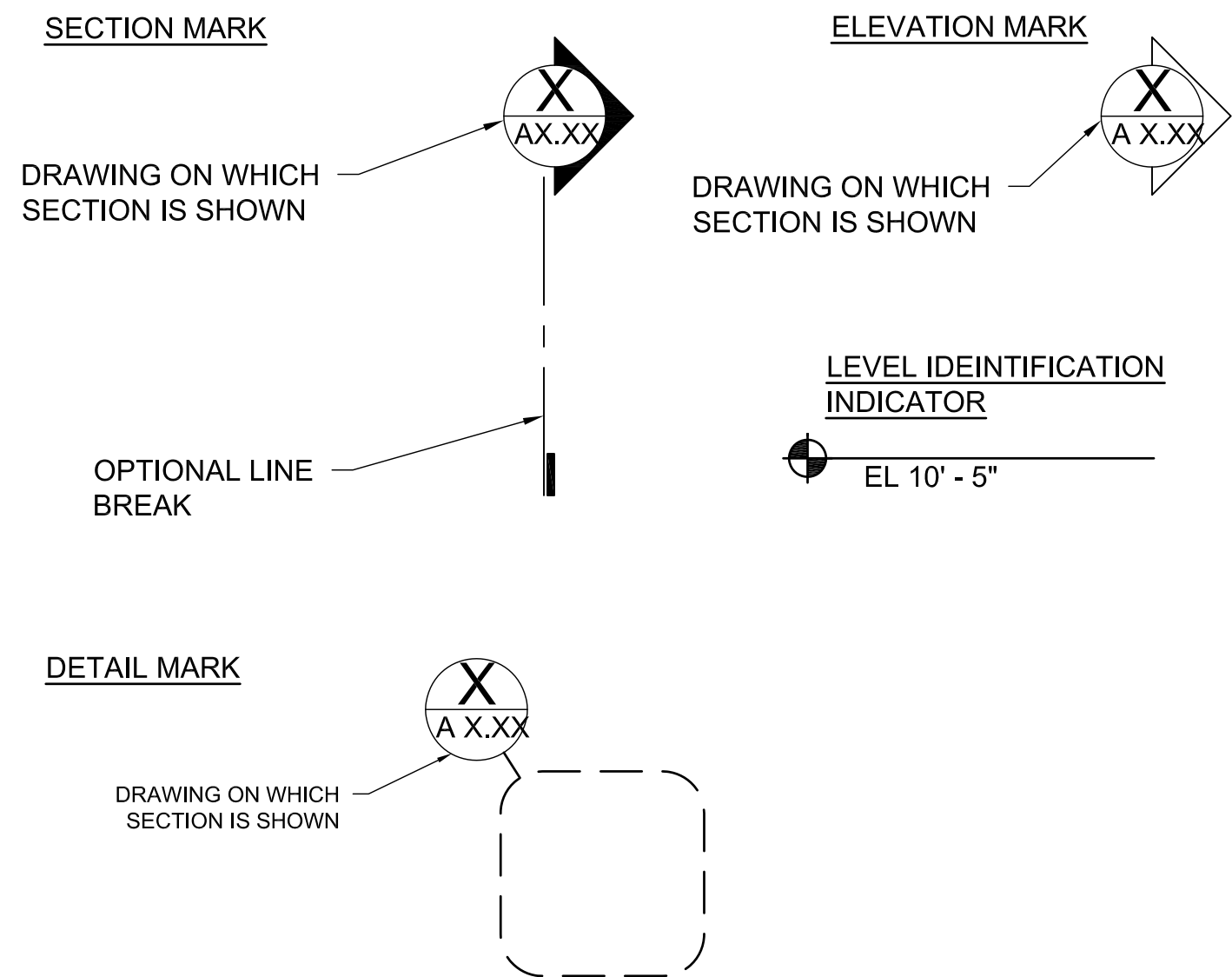
C:\Users\Laura\Desktop\Meadowdale\100% Design\100% drawings\A-1 General.dwg A-1.1  
Sep 01, 2020 9:50am \$GETVAR(??)

SYMBOLS

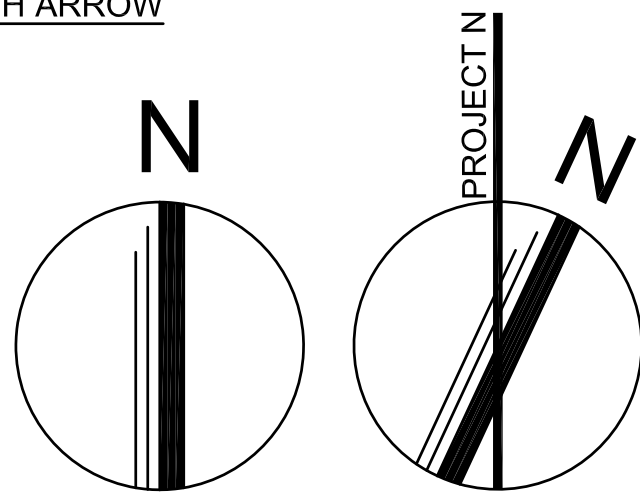
	GRIDLINE MARK
	DOOR IDENTIFICATION MARK
	WALL TYPE MARK
	FLOOR/CEILING & ROOF ASSEMBLY TYPE MARK
	WINDOW TAG
	KEY NOTE
	FIRE EXTINGUISHER CABINET
	FIRE EXTINGUISHER ON HANGERS OR BRACKETS
	DOWN SPOUT
	REVISION CLOUD
	REVISION DELTA
	BARRIER FREE SYMBOL
	WATER HEATER W/ OVERFLOW PAN
	ILLUMINATED EXIT SIGN W/ BATTERY BACK-UP
	EMERGENCY LIGHTING W/ BATTERY BACK-UP
	HOSE BIB
	EXHAUST FAN
	FAN TERMINATION
	PASSIVE ROOF VENTILATOR
	DECK OR ROOF DRAIN
	ROOF DRAIN W/ OVERFLOW DRAIN
	SCUPPER
	CENTER LINE
	PROPERTY LINE
	HIDDEN OR EXISTING CONSTRUCTION
	BREAK LINE
	FLOORING TRANSITION
	RAMP ARROW WITH PERCENT SLOPE
	DECK OR ROOF SLOPE
	OR

REFERENCING

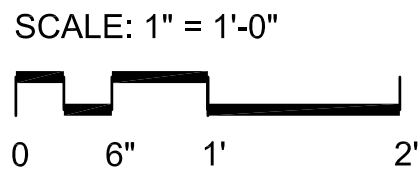
SECTIONS ARE CROSS REFERENCED IN THE FOLLOWING MANNER:



NORTH ARROW



GRAPHIC SCALE



DIMENSIONING STANDARDS

- DO NOT SCALE DRAWINGS FOR DIMENSIONS. DIMENSIONS ARE INDICATED IN THE DOCUMENTS.
- ALL INTERIOR PARTITIONS ARE DIMENSIONED TO THE FACE OF WALL UNLESS NOTED OTHERWISE.
- THE TERM "EQUAL" OR "EQ" IS USED IN LIEU OF ACTUAL DIMENSIONS WHERE EQUAL SPACING OF ELEMENTS IS REQUIRED.
- THE TERM "CLEAR" OR "CLR" IS USED TO DENOTE A MINIMUM DIMENSIONAL REQUIREMENT. HOWEVER, THE DIMENSION COULD BE LARGER.
- WALLS CENTERED ON A COLUMN OR GRIDLINE WILL NOT BE DIMENSIONED ON PLANS BUT WILL BE DRAWN AS INDICATED BELOW.
- WALLS WITH A FINISHED FACE FLUSH WITH THE FACE OF A COLUMN OR COREWALL WILL NOT BE DIMENSIONED ON PLANS BUT WILL BE DRAWN AS INDICATED BELOW.
- DIMENSIONS AT WINDOW WALL ARE TO CENTER OF MULLION, TO FACE OF MULLION AT CORNER CONDITIONS, AND TO ROUGH OPENING AT HEAD AND JAM CONDITIONS, UNLESS NOTED OTHERWISE.
- DOORS AND OPENINGS IN WALLS
  - DOORS OR OPENINGS LOCATED ADJACENT TO A RIGHT ANGLE WALL ARE TO BE INSTALLED 4" FROM ADJACENT WALL. THIS CONDITION IS TYPICAL AND WILL NOT BE DIMENSIONED.
  - DOORS NOT LOCATED ADJACENT TO A RIGHT ANGLE WALL WILL BE DIMENSIONED TO THE CENTER OF DOOR FRAME OPENING, U.O.N.
  - OPENINGS NOT LOCATED ADJACENT TO A RIGHT ANGLE WALL WILL BE DIMENSIONED TO THE JAMB OF THE OPENING AND THE OPENING WILL BE DIMENSIONED.
- ALL HEIGHTS ARE DIMENSIONED FROM THE TOP OF THE STRUCTURAL (T.O.S.S.) SLAB UNLESS NOTED OTHERWISE.

MATERIALS

	EARTH SURFACE
	SAND / GROUT
	CONCRETE
	WOOD OR METAL STUD WALLS
	GYPSTUM BOARD
	CONT. WOOD FRAMING
	WOOD BLOCKING
	FINISHED WOOD
	PLYWOOD
	BATT INSULATION
	RIGID INSULATION BOARD
	BRICK
	CONCRETE UNIT MASONRY
	STEEL
	GLASS
	RESILIENT TILES

ABBREVIATIONS

AB	ANCHOR BOLT	FRC	FIBER REINFORCED CONCRETE	PRV	POWER ROOF VENT
A/C	AIR CONDITIONING	FSB	FOOD STORAGE BUILDING	PSF	LBS PER SQUARE FOOT
ACT	ACOUSTICAL CEILING TILE	FT	FEET	PTD	PAPER TOWEL DISPENSER
ADJC	ADJUSTABLE	FTG	FOOTING	QT	QUARRY TILE
AFF	ABOVE FINISH FLOO	FTR	FINNED TUBE RADIATION	R	RADIUS, RISER
AHU	AIR HANDLING UNIT	FURN	FURNITURE, FURNACE	RAD	RADIATOR
ALUM	ALUMINUM	GA	GAGE	RC	REINFORCED CONCRETE
APT	APARTMENT	GALV	GALVANIZED	RCP	REINFORCED CONCRETE PIPE
BD	BOARD	GI	GALVANIZED IRON	RD	ROOF DRAIN
BFE	BOTTOM FOOTING ELEVATION	GC	GENERAL CONTRACTOR	RECPT	RECEPTACLE
BITUM	BITUMINOUS	GL	GLASS, GLAZING	REINF	REINFORCED
BLDG	BUILDING	GND	GROUND	RET	RETAINING
BLK	BLOCK	GR	GRADE	RHMS	ROUND HEAD MACHINE
BLKG	BLOCKING MACHINE	GRL	GRILLE	RHWS	ROUND HEAD WOOD
BM	BEAM	GRV	GRAVITY ROOF VENT	RM	ROOM
BOT	BOTTOM	GWB	GYPSTUM WALL BOARD	RO	ROUGH OPENING
BRG	BEARING	GWT	GLAZED WALL TILE	RWL	RAINWATER LEADER
BUR	BUILT-UP ROOFING	GYP	GYPSTUM	SD	SOAP DISPENSER
CAB	CABINET	HORIZ	HORIZONTAL	SECT	SECTION
CPT	CARPET	HC	HANDICAPPED	SFT	STRUCTURAL FACING TILE
CH BD	CHALKBOARD	HDR	HEADER	SHR	SHOWER
CEM	CEMENT	HDWD	HARDWOOD	SHT	SHEET
CHAN	CHANNEL	HHMS	HEX HEAD MACHINE SCREW	SIM	SIMILAR
CJ	CONSTRUCTION JOINT	HM	HOLLOW METAL	SMS	SHEET METAL SCREW
CL	CENTER LINE	H PT	HIGH POINT	SND	SAN. NAPKIN DISPENSER
CL	CLOSET	HNDRL	HANDRAIL	SNR	SANITARY NAPKIN RECEPTACLE
CLG	CEILING	HGT	HEIGHT	SP	SPACE
CMU	CONCRETE MASONRY UNIT	HR	HOUR	SPEC	SPECIFICATION
CMT	CERAMIC MOSAIC TILE	HVAC	HEATING, VENTILATION & AIR	SPKLR	SPRINKLER
CO	CLEAN OUT	CONDITIONING		SQ	SQUARE
COL	COLUMN	ID	INSIDE DIAMETER	SS	SANITARY SEWER
COMP	COMPRESSION, COMPACTED	IF	INSIDE FACE	S SK	SERVICE SINK
CONC	CONCRETE	IN	INCH	SST	STAINLESS STEEL
CONT	CONTINUOUS	INSUL	INSULATION	STD	STANDARD
CONTR	CONTRACTOR	INT	INTERIOR	STL	STEEL
CONV.	CONVECTOR	INV	INVERT	STRUC	STRUCTURAL
CORR	CORRIDOR	JAN	JANITOR	SUSP	SUSPENDED
DBL	DOUBLE	JST	JOIST SND	T	TOP, TILE, TREAD
DET	DETAIL	JT	JOINT SND	TEMP	TEMPORARY
DF	DRINKING FOUNTAIN	LAM	LAMINATED	TERR	TERRAZZO
DIA	DIAMETER	LAV	LAVATORY	T&G	TOUNGE & GROOVE
DIM	DIMENSION	LP	LOWPOINT	TH	THRESHOLD, THICK
DISP	DISPENSER	MATL	MATERIAL	TOD	TOP OF DECK
DN	DOWN	MAX	MAXIMUM	TOJ	TOP OF JOIST
DO	DITTO	MB	MARKER BOARD	TOS	TOP OF STEEL
DR	DRAIN, DOOR	MECH	MECHANICAL	TPD	TOILET PAPER DISPENSER
DTL	DETAIL	MFR	MANUFACTURER	TR	TROWELED, TREAD
D/W	DISHWASHER	MH	MANHOLE	TS	TUBULAR STEEL
DWG	DRAWING	MIN	MINIMUM, MINUTE	TYP	TYPICAL
DS	DOWNSPOUT	MIR	MIRROR	UGRD	UNDERGROUND
DWL	DOWEL	MISC	MISCELLANEOUS	UH	UNIT HEATER
EA	EACH	MO	MASONRY OPENING	UNO	UNLESS NOTED OTHERWISE
EPDM	ETYLENE PROPYLENE DIENE MONOMER	MTL	METAL	UR	URINAL
EF	EACH FACE	MTD	MOUNTED	UTIL	UTILITY
EL	ELEVATION	NIC	NOT IN CONTRACT	VERT	VERTICAL
ELEC	ELECTRIC	NO	NUMBER	VCT	VINYL COMP. TILE
EQUIP	EQUIPMENT	NS	NEAR SIDE	W/	WITH
EW	EACH WAY	OA	OVER ALL	WC	WATER CLOSET / TOILET
EW	ELECTRIC WATER COOLER	OC	ON CENTER	W/D	WASHER/DRYER
ELVR	ELEVATOR	OD	OUTSIDE DIAMETER	WD	WOOD
EXH	EXHAUST	OF.	OUTSIDE FACE	WDW	WINDOW
EXST	EXISTING	OPNG	OPENING	WH	WATER HEATER
EXP JT	EXPANSION JOINT	PR	PAIR	WN	WAINSCOT
EXT	EXTERIOR	PNL	PANEL	WO	WITHOUT
F	FAN	PART	PARTITION	WP	WORKING POINT
FD	FLOOR DRAIN	PERF	PERFORATED		
FDN	FOUNDATION	P/C	PRECAST		
FHMS	FLAT HEAD MACHINE SCREW	PLAS	PLASTER		
FH	FIRE HYDRANT	PL	PLATE		
FLR	FLOOR	P LAM	PLASTIC LAMINATE		
FLG	FLANGE	PT	PAINT		
FRPF	FIREPROOF, FRAME	PREFIN	PREFINISHED		

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BY: \_\_\_\_\_  
R/W PERMIT NO. \_\_\_\_\_  
DATE: \_\_\_\_\_

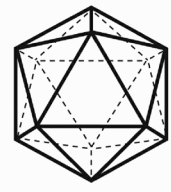
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MEADOWDALE BEACH PARK  
AND ESTUARY DESIGN  
PFN 19-103913LDA

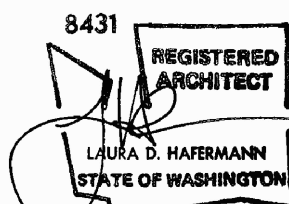
ARCHITECTURE GENERAL NOTES

A-1.1

SHEET NO. 48 OF 81



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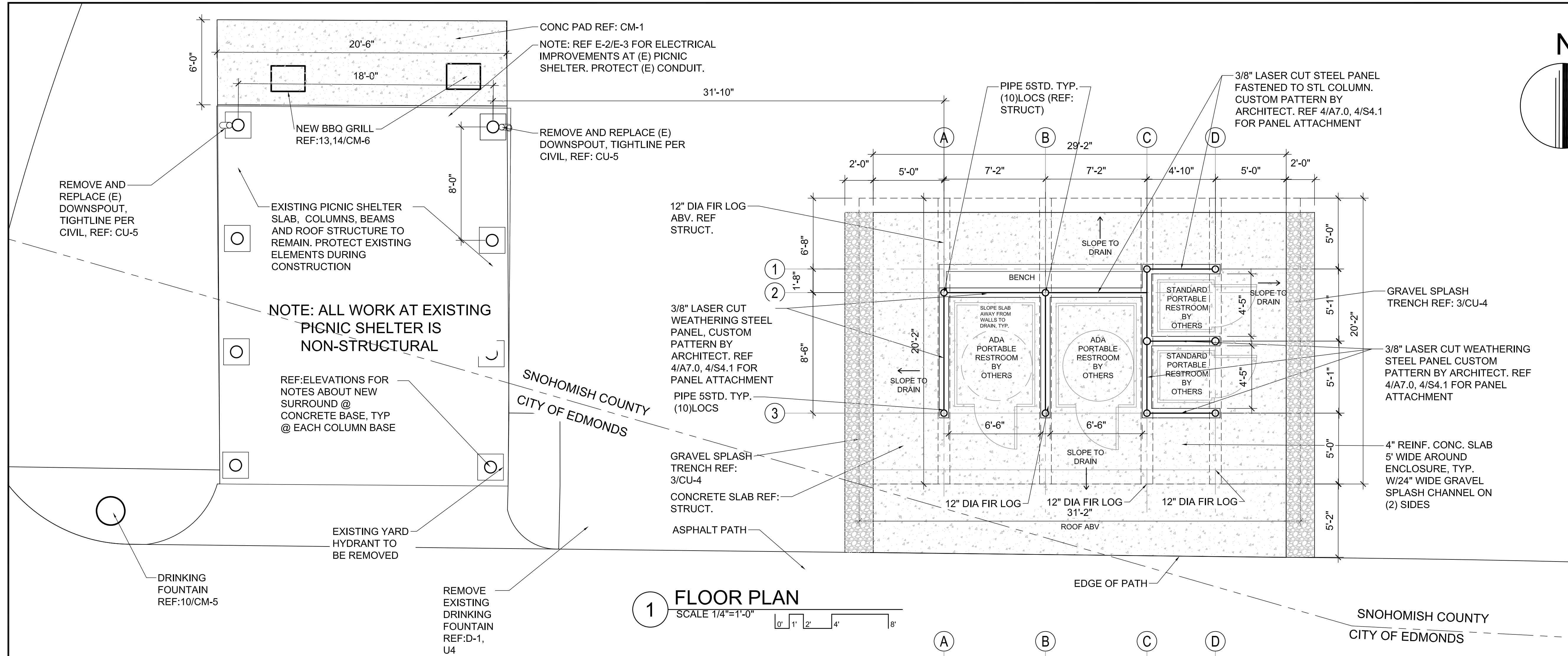


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DRAWN BY: LH  
CHECKED BY: LH  
APPROVED BY: LH  
SCALE: AS NOTED  
DATE: AUGUST 2020

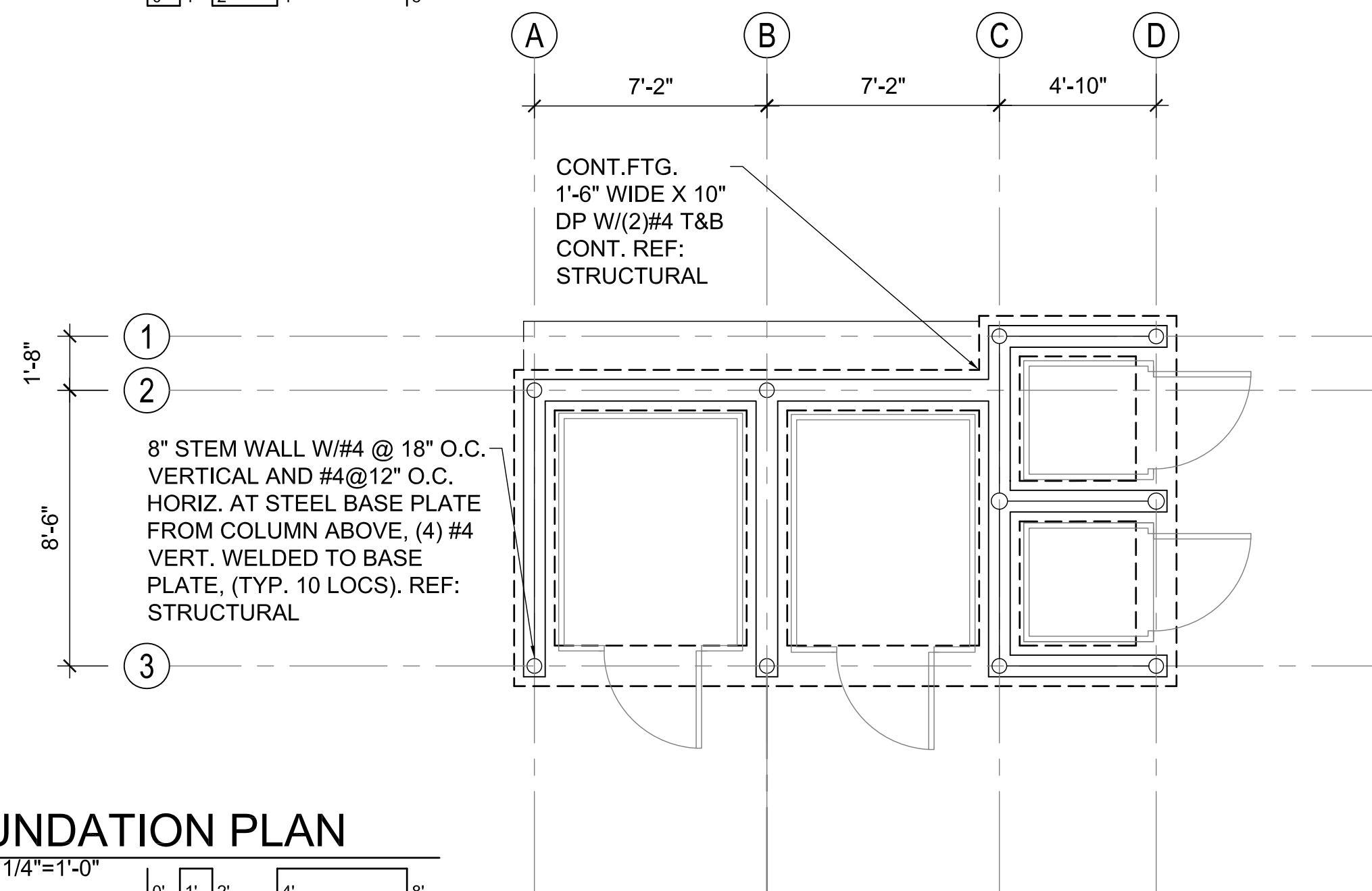


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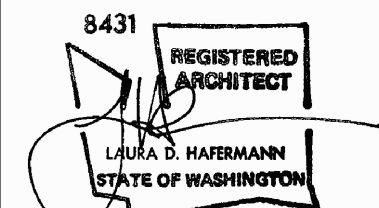
1 FLOOR PLAN  
SCALE 1/4"=1'-0"

2 FOUNDATION PLAN  
SCALE 1/4"=1'-0"



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CHECKED BY: LH  
APPROVED BY: LH  
SCALE: AS NOTED  
DATE: AUGUST 2020

MEADOWDALE BEACH PARK  
AND ESTUARY DESIGN  
PFN 19-103913LDA

PORTABLE TOILET ENCLOSURE FOUNDATION PLAN,  
FLOOR PLAN, EXISTING PICNIC SHELTER FLOOR PLAN

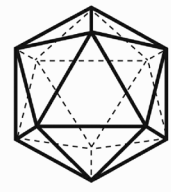
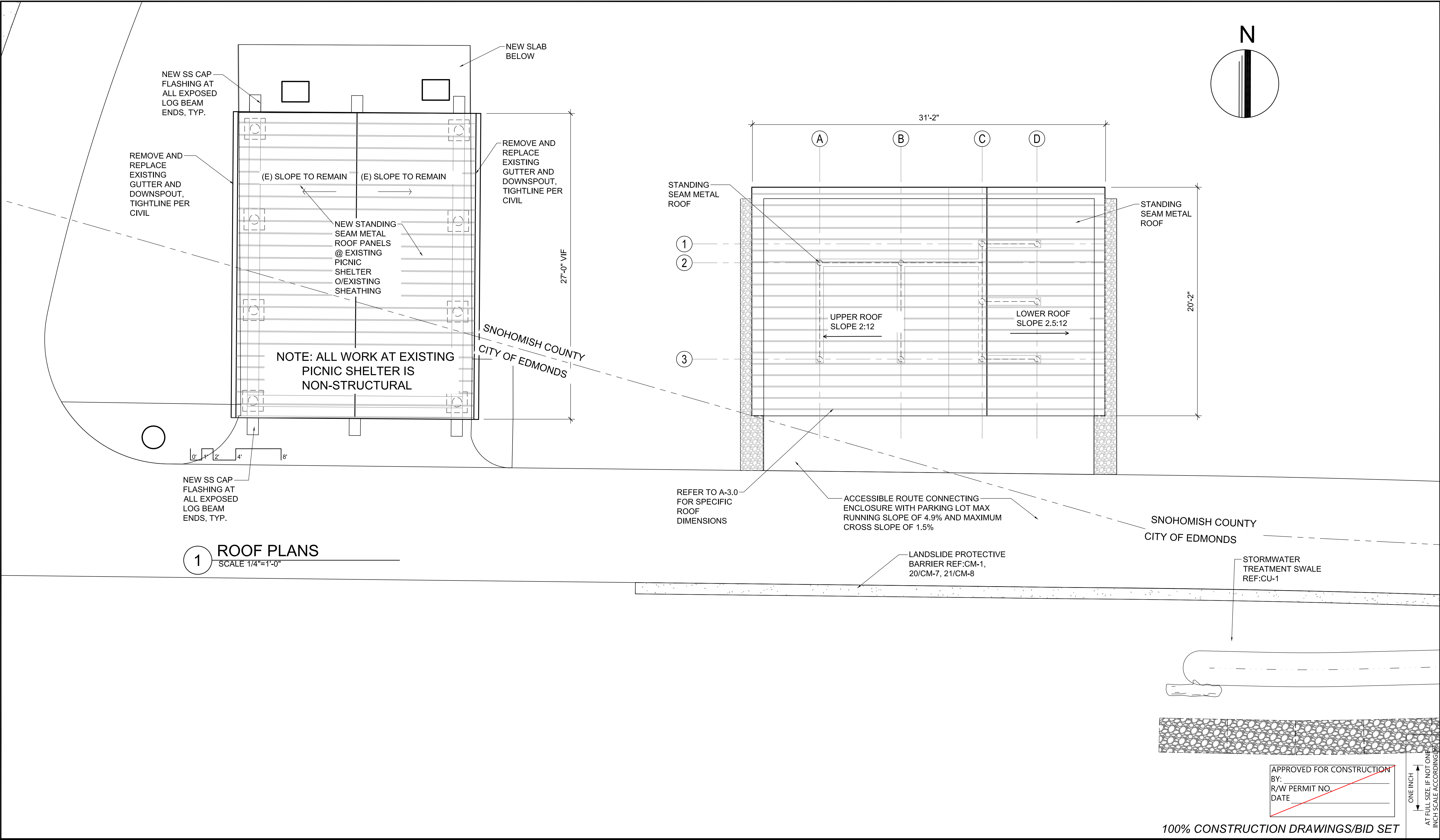
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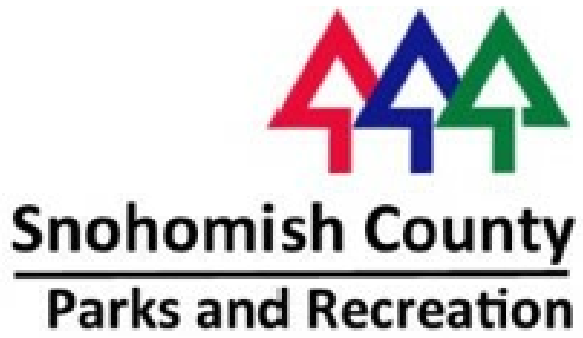
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DATE: AUGUST 2020

MEADOWDALE BEACH PARK  
AND ESTUARY DESIGN  
PFN 19-103913LDA

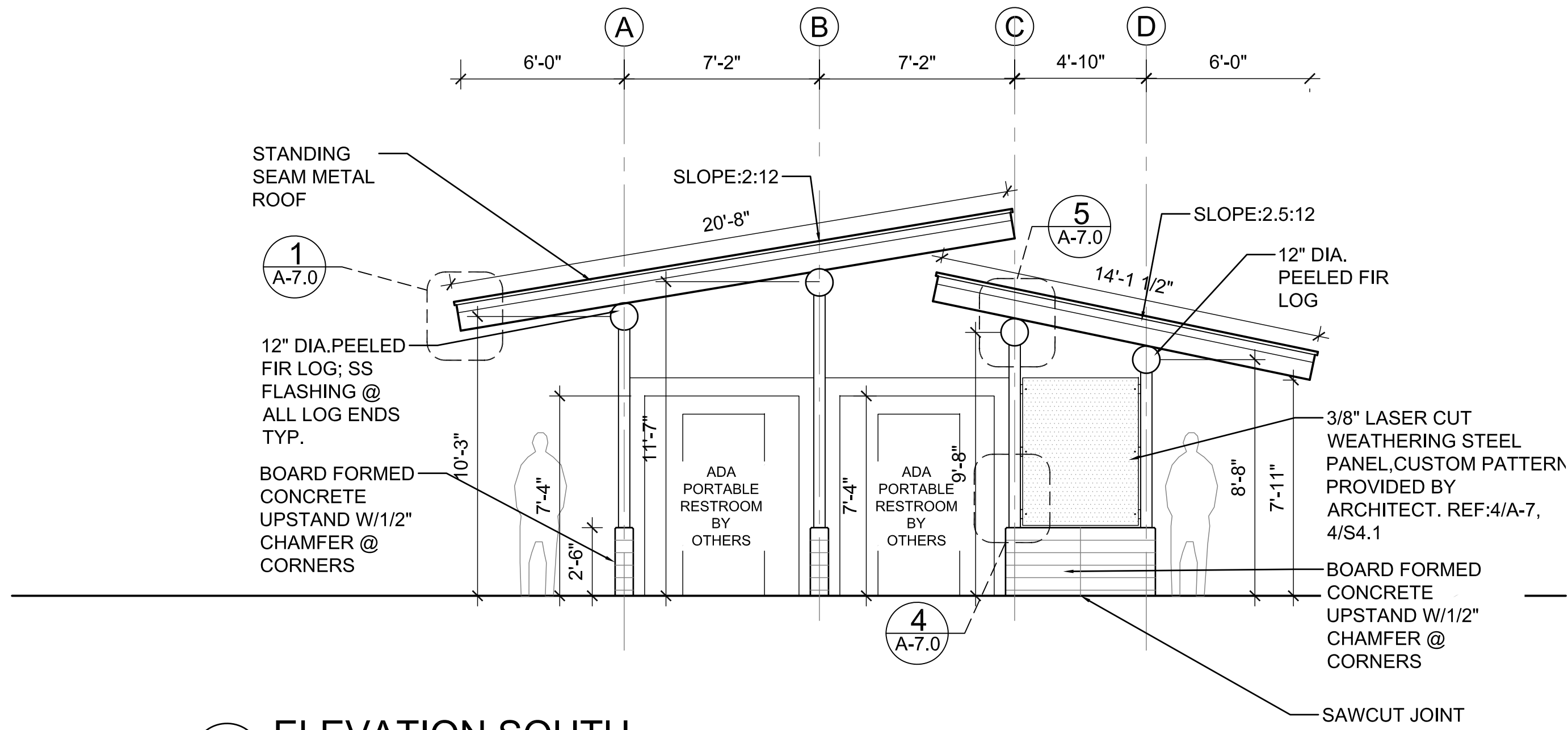
PORTABLE TOILET ENCLOSURE AND EXISTING PICNIC  
SHELTER ROOF PLANS

A-2.1

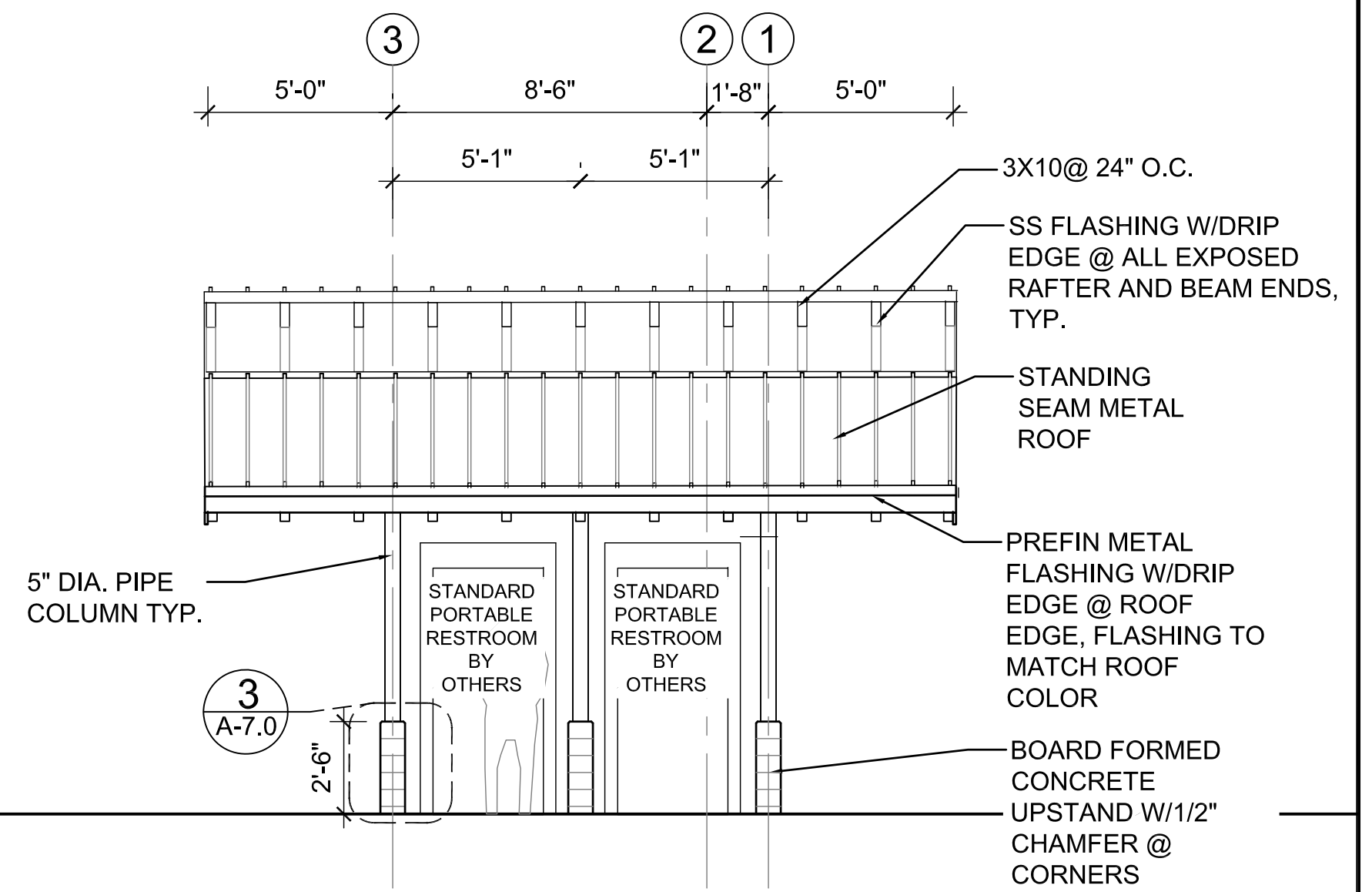
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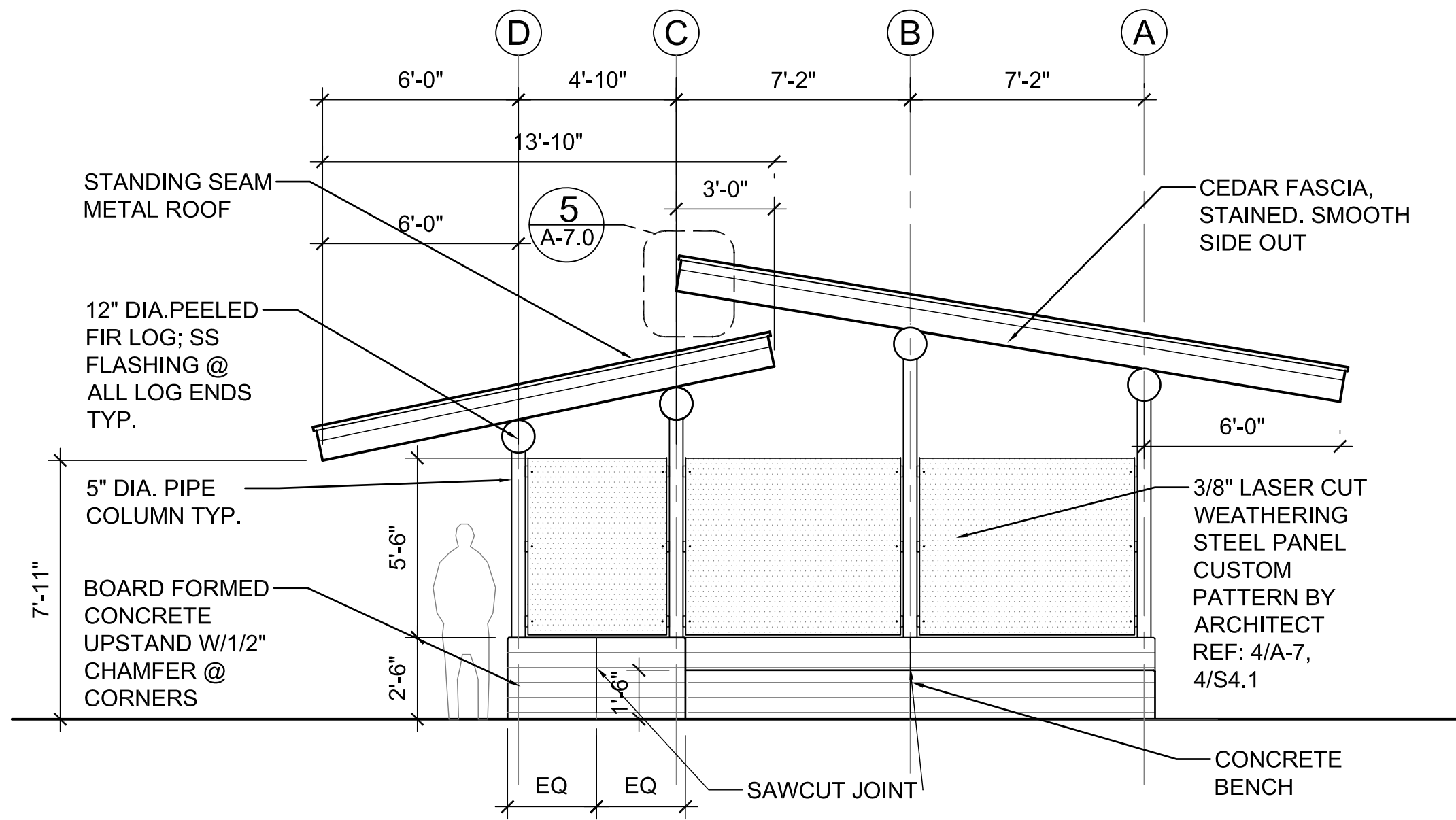


1 ELEVATION SOUTH  
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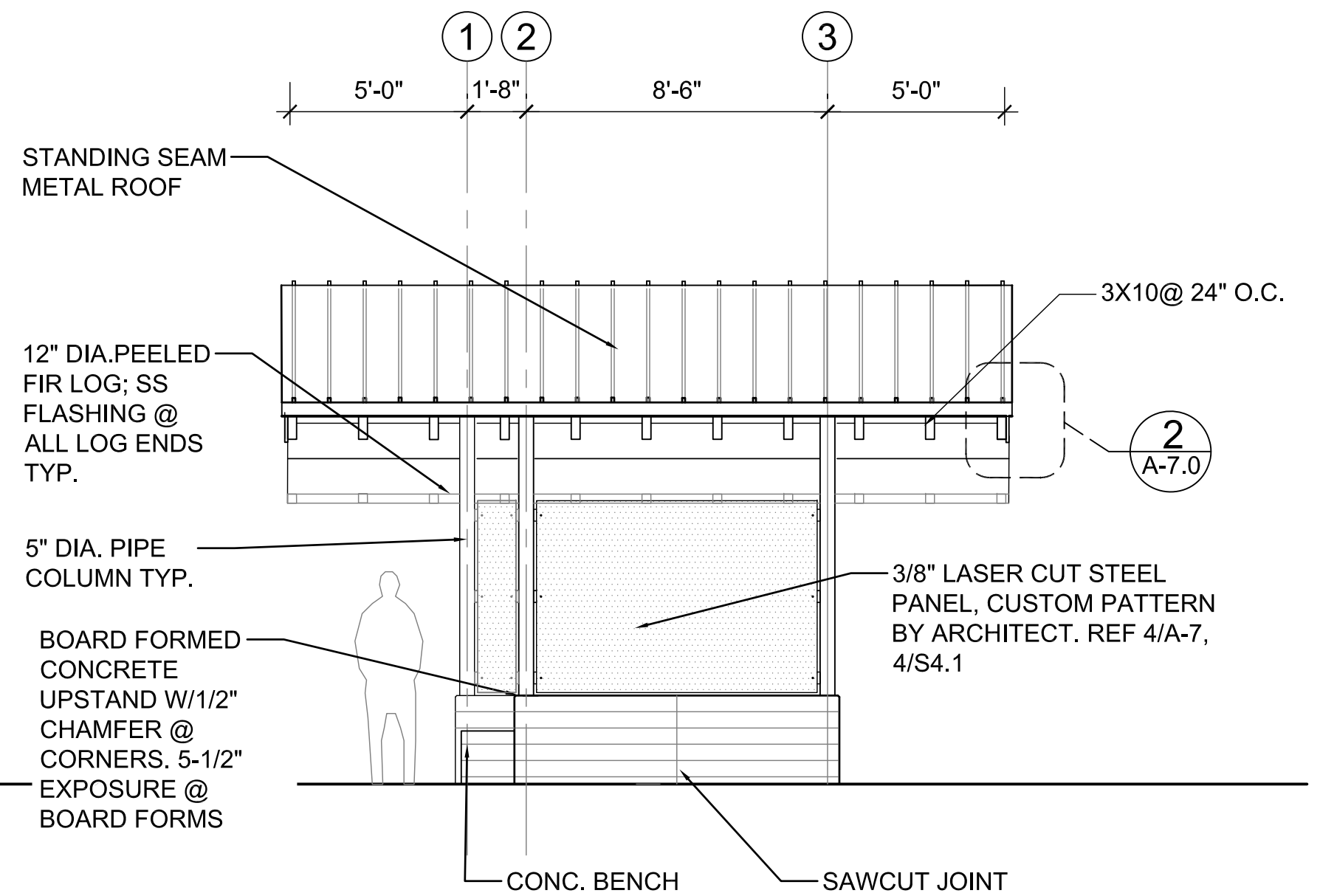


2 ELEVATION EAST  
SCALE 1/4"=1'-0"

LEGEND			
#	ELEMENT	MATERIAL	COLOR / FINISH
1	CONCRETE	CAST IN PLACE, BOARD FORMED	GRAY CONCRETE W/ ANTI-GRAFFITI COATING
2	COLUMNS	STEEL	PAINT
3	EXPOSED STRUCTURE	PEELED DOUGLAS FIR LOGS	CLEAR FINISH PER SPEC
4	ENCLOSURE PANEL	WEATHERING STEEL	
5	RAFTERS, TRIM	WOOD	SEMI TRANSPARENT STAIN
6	T&G DECKING	WOOD	SEMI TRANSPARENT STAIN
7	ROOFING	STANDING SEAM METAL ROOF	PER SPEC
8	EXPOSED FLASHING AT LOG ENDS	STAINLESS STEEL	
9	MISC ROOF FLASHING	METAL	TO MATCH ROOF
10	GUTTERS& DOWNSPOUTS	METAL	TO MATCH ROOF
11			



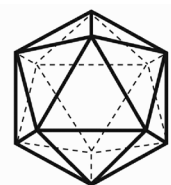
3 ELEVATION NORTH  
SCALE 1/4"=1'-0"



4 ELEVATION WEST  
SCALE 1/4"=1'-0"

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DATE: AUGUST 2020

MEADOWDALE BEACH PARK  
AND ESTUARY DESIGN  
PFN 19-103913LDA

PORTABLE TOILET ENCLOSURE ELEVATIONS

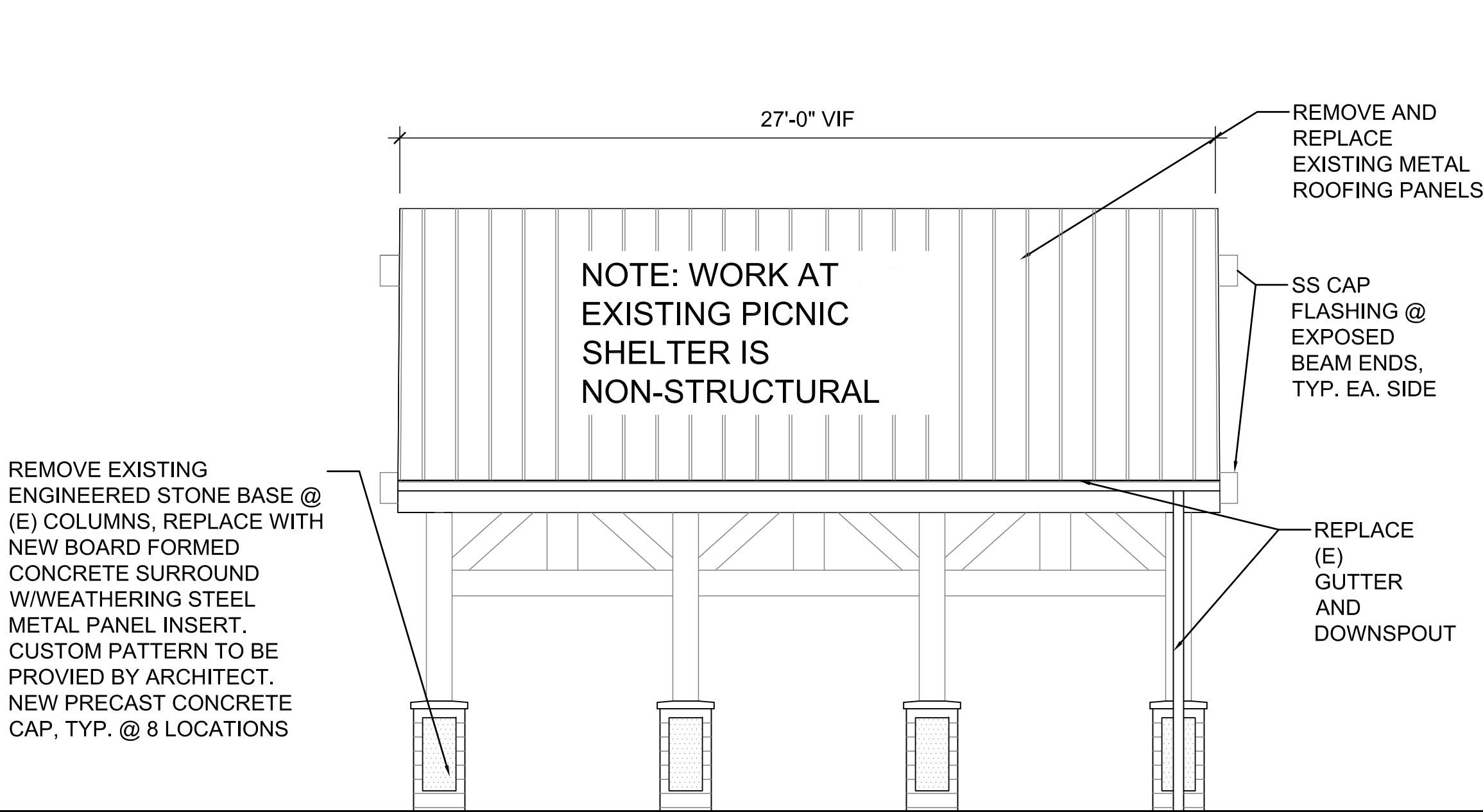
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SHEET NO. 51 OF 81

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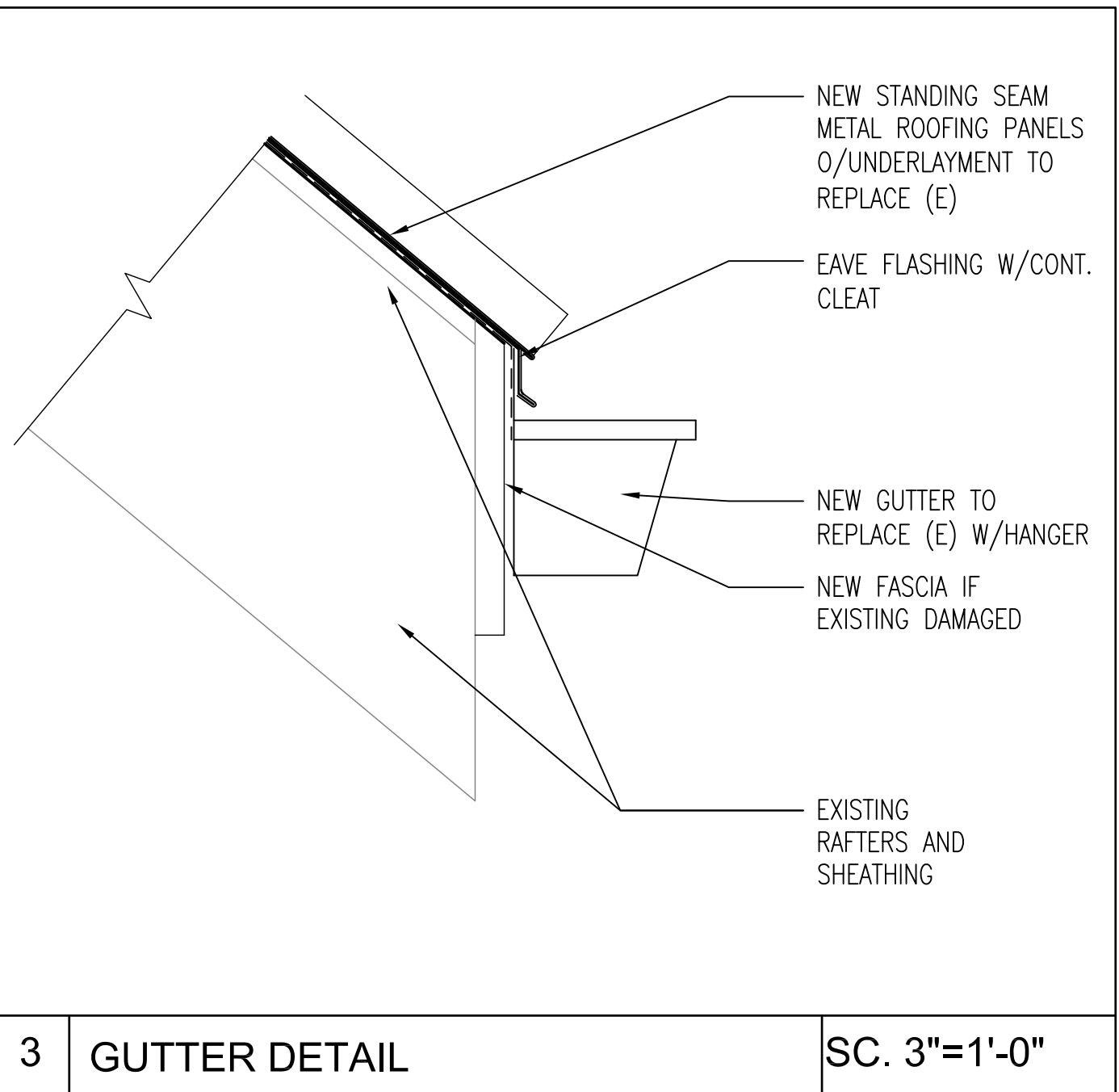
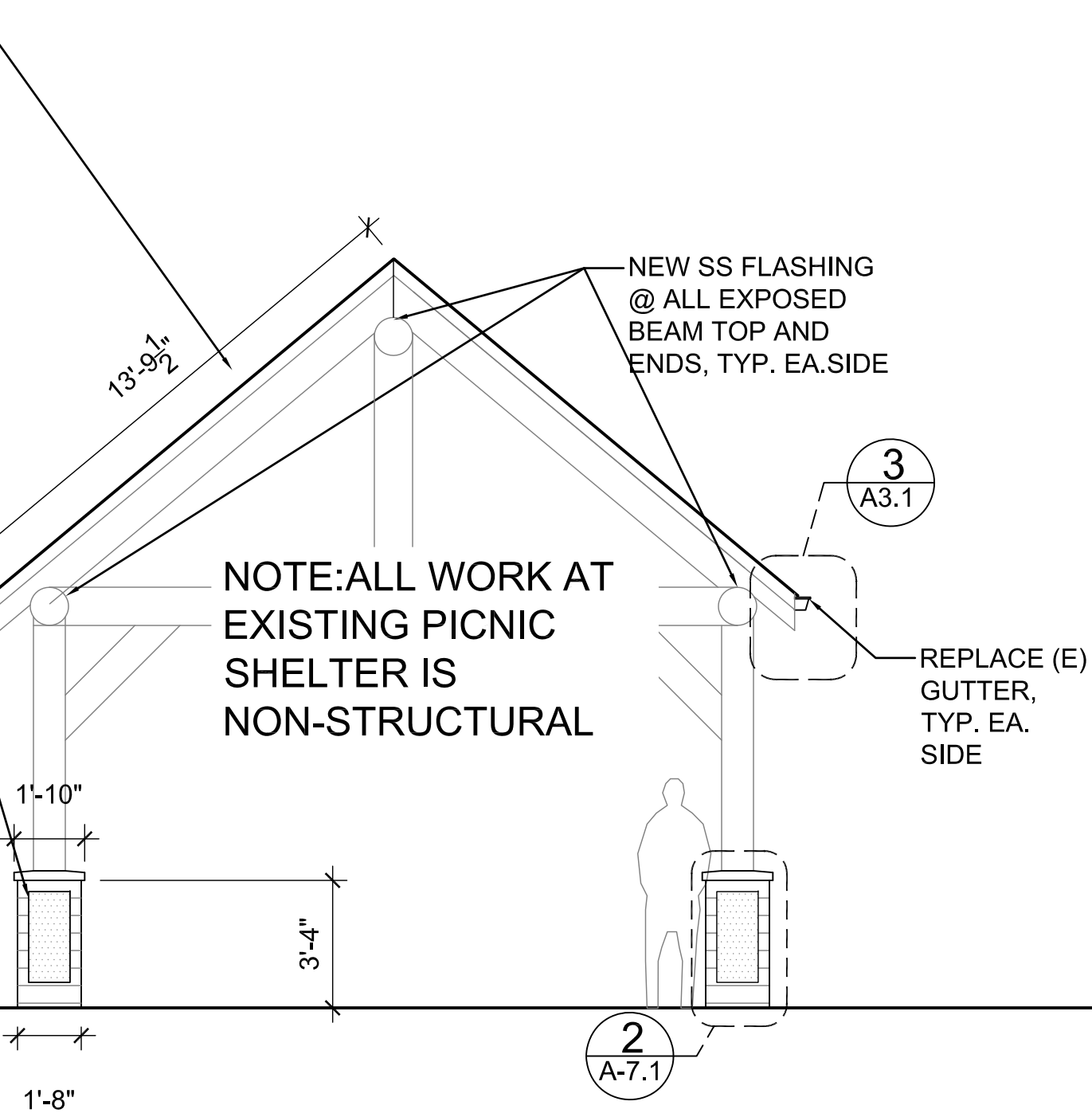


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Sep 01, 2020 9:52am \$GETVAR(??)



REMOVE AND REPLACE EXISTING METAL ROOFING PANELS, GUTTERS AND DOWNSPOUTS. EXISTING ROOF SHEATHING AND STRUCTURE TO REMAIN.

REMOVE EXISTING ENGINEERED STONE BASE @ (E) COLUMNS, REPLACE WITH NEW BOARD FORMED CONCRETE SURROUND W/WEATHERING STEEL METAL PANEL INSERT. CUSTOM PATTERN TO BE PROVIDED BY ARCHITECT. NEW PRECAST CONCRETE CAP, TYP. @ 8 LOCATIONS



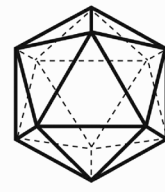
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0' 1' 2' 4' 8'

2 SECTION  
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0' 1' 2' 4' 8'

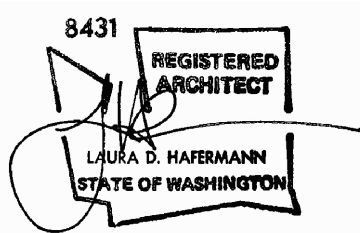
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DATE \_\_\_\_\_

ONE INCH  
↑  
AT FULL SIZE, IF NOT ONE  
INCH SCALE ACCORDINGLY  
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100% CONSTRUCTION DRAWINGS/BID SET



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DATE: AUGUST 2020

MEADOWDALE BEACH PARK  
AND ESTUARY DESIGN  
PFN 19-103913LDA

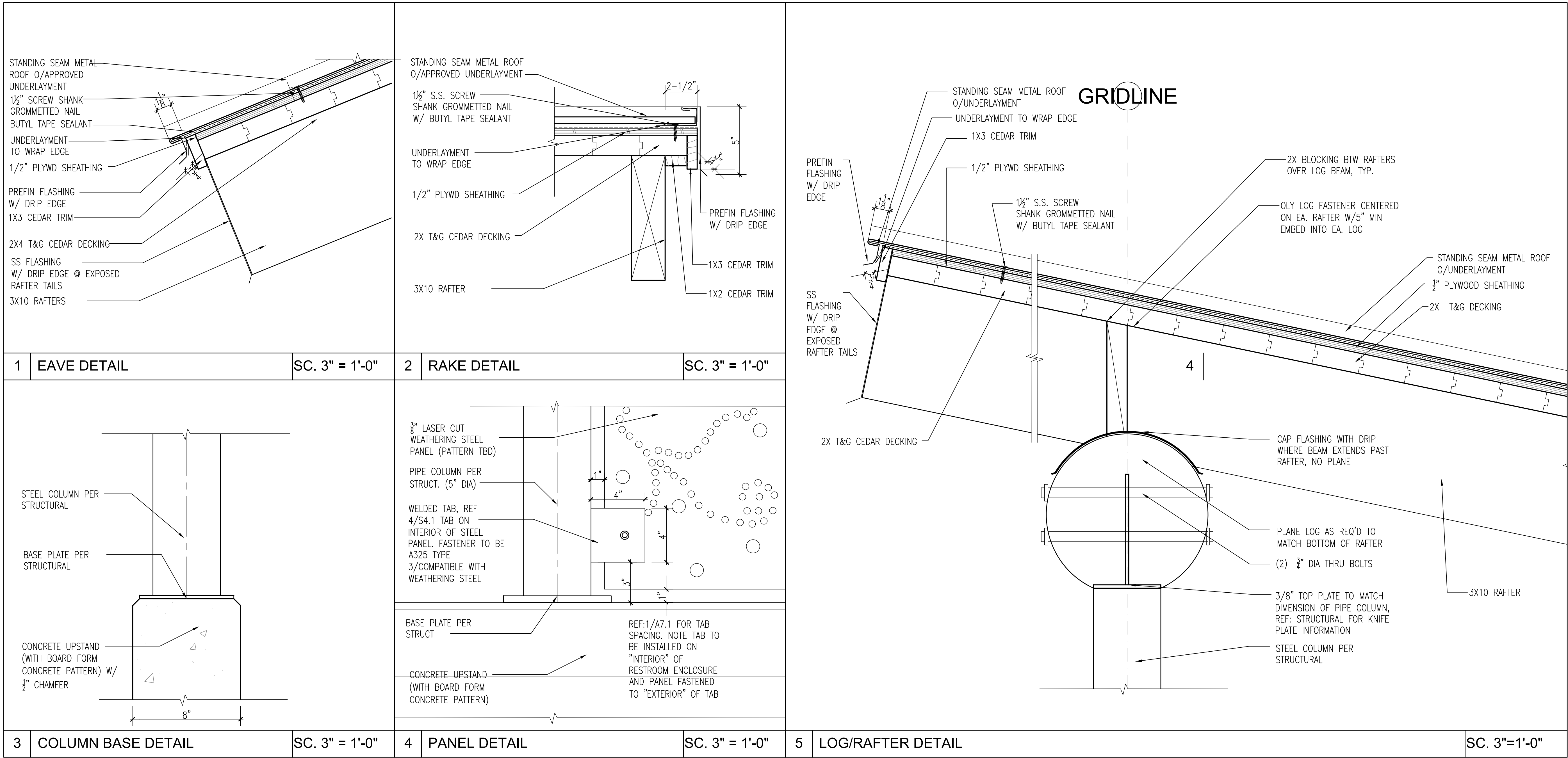
EXISTING PICNIC SHELTER ELEVATIONS

A-3.1

SHEET NO. 52 OF 81

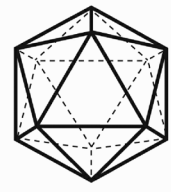


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DATE: AUGUST 2020

MEADOWDALE BEACH PARK  
AND ESTUARY DESIGN  
PFN 19-103913LDA

PORTABLE TOILET ENCLOSURE DETAILS

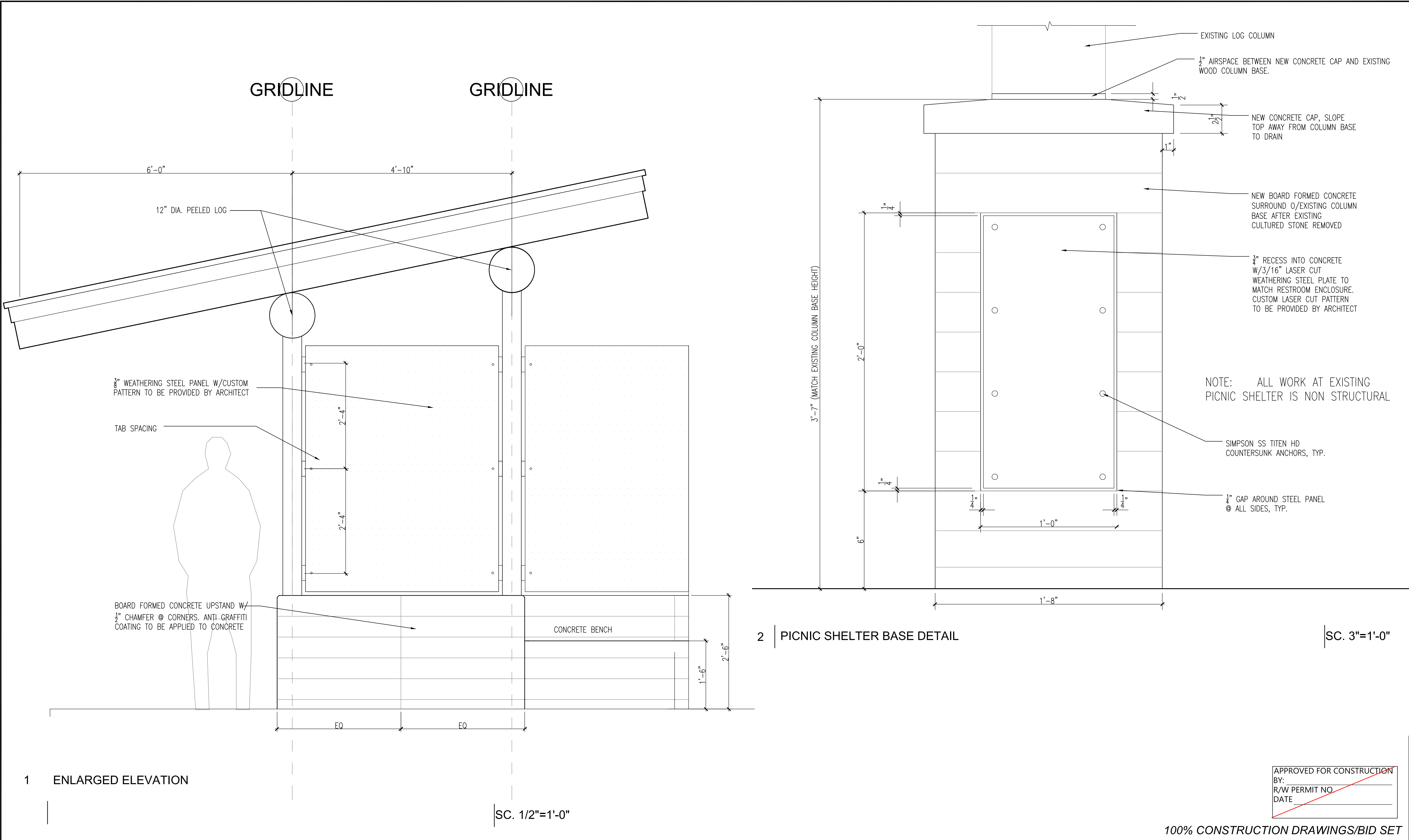
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SHEET NO. 53 OF 81

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INCH SCALE ACCORDINGLY

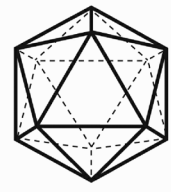


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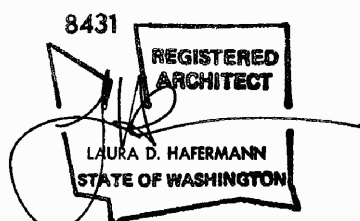


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DATE: AUGUST 2020

MEADOWDALE BEACH PARK  
AND ESTUARY DESIGN  
PFN 19-103913LDA

PORTABLE TOILET ENCLOSURE  
ELEVATION, PICNIC SHELTER BASE  
DETAIL

A-7.1

SHEET NO. 54 OF 81

ONE INCH  
AT FULL SIZE, IF NOT ONE  
INCH SCALE ACCORDINGLY



SECTION 5, TOWNSHIP 27 N., RANGE 4 E  
General Structural Notes

THE FOLLOWING APPLY UNLESS SHOWN OTHERWISE ON THE DRAWINGS

CRITERIA

1. ALL MATERIALS, WORKMANSHIP, DESIGN, AND CONSTRUCTION SHALL CONFORM TO THE DRAWINGS, SPECIFICATIONS, AND THE INTERNATIONAL BUILDING CODE (2015 EDITION).
2. DESIGN LOADING CRITERIA:  
HANDRAILS AND GUARDS  
    GUARDRAILS/BALCONY RAILS . . . . . 50 PLF  
    GUARDRAILS/BALCONY RAILS CONCENTRATED LOAD . . . . . 200 LBS  
ROOF  
    ROOF LIVE LOAD . . . . . 25 PSF  
BOARDWALK  
    LIVE LOAD . . . . . 100 PSF  
MISCELLANEOUS LOADS  
    DEFLECTION CRITERIA  
        LIVE LOAD DEFLECTION . . . . . L/360  
        TOTAL LOAD DEFLECTION . . . . . L/240  
ENVIRONMENTAL LOADS  
    SNOW . . . . . Ce=1.0, Is=1.0, Ct=1.2, Pg=20 PSF, Pf=25 PSF  
    WIND . . . . . Gcpi=0.18, 110 MPH, RISK CATEGORY II, EXPOSURE "B"  
    EARTHQUAKE . . . ANALYSIS PROCEDURE: EQUIVALENT LATERAL FORCE PROCEDURE  
        LATERAL SYSTEM (RESTROOM STRUCTURE): STEEL SPECIAL  
        CANTILEVER COLUMN SYSTEM, SITE CLASS=E, Ss=1.331,  
        Sds=0.60, S1=0.525, SD1=0.84, Cs=0.321, SDC D, Ie=1.0,  
        R=2.5  
SEE PLANS FOR ADDITIONAL LOADING CRITERIA

3. STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH ARCHITECTURAL AND LANDSCAPE DRAWINGS FOR BIDDING AND CONSTRUCTION. ARCHITECTURAL AND LANDSCAPE DRAWINGS ARE THE PRIME CONTRACT DRAWINGS. ANY DISCREPANCIES FOUND AMONG THE DRAWINGS, THE SPECIFICATION, THESE GENERAL NOTES AND THE SITE CONDITIONS SHALL BE REPORTED TO THE ARCHITECT AND LANDSCAPE ARCHITECT, WHO SHALL CORRECT SUCH DISCREPANCY IN WRITING. ANY WORK DONE BY THE GENERAL CONTRACTOR AFTER DISCOVERY OF SUCH DISCREPANCY SHALL BE DONE AT THE GENERAL CONTRACTOR'S RISK.
4. PRIMARY STRUCTURAL ELEMENTS NOT DIMENSIONED ON THE STRUCTURAL PLANS AND DETAILS SHALL BE LOCATED BY THE ARCHITECTURAL AND LANDSCAPE PLANS AND DETAILS. VERTICAL DIMENSION CONTROL IS DEFINED BY THE ARCHITECTURAL WALL SECTIONS, BUILDING SECTION, AND PLANS. DETAILING AND SHOP DRAWING PRODUCTION FOR STRUCTURAL ELEMENTS WILL REQUIRE DIMENSIONAL INFORMATION CONTAINED IN BOTH ARCHITECTURAL AND STRUCTURAL DRAWINGS.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SAFETY PRECAUTIONS AND THE METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES REQUIRED TO PERFORM THE CONTRACTORS WORK. THE STRUCTURAL ENGINEER HAS NO OVERALL SUPERVISORY AUTHORITY OR ACTUAL AND/OR DIRECT RESPONSIBILITY FOR THE SPECIFIC WORKING CONDITIONS AT THE SITE AND/OR FOR ANY HAZARDS RESULTING FROM THE ACTIONS OF ANY TRADE CONTRACTOR. THE STRUCTURAL ENGINEER HAS NO DUTY TO INSPECT, SUPERVISE, NOTE, CORRECT, OR REPORT ANY HEALTH OR SAFETY DEFICIENCIES TO THE OWNER, CONTRACTORS, OR OTHER ENTITIES OR PERSONS AT THE PROJECT SITE.
6. CONTRACTOR SHALL PROVIDE TEMPORARY BRACING FOR THE STRUCTURE AND STRUCTURAL COMPONENTS UNTIL ALL FINAL CONNECTIONS HAVE BEEN COMPLETED IN ACCORDANCE WITH THE PLANS. CONFORM TO ASCE 37-14 "DESIGN LOADS ON STRUCTURES DURING CONSTRUCTION".
7. CONTRACTOR-INITIATED CHANGES SHALL BE SUBMITTED IN WRITING TO THE ARCHITECT AND STRUCTURAL ENGINEER FOR APPROVAL PRIOR TO FABRICATION OR CONSTRUCTION. CHANGES SHOWN ON SHOP DRAWINGS ONLY WILL NOT SATISFY THIS REQUIREMENT.
8. DRAWINGS INDICATE GENERAL AND TYPICAL DETAILS OF CONSTRUCTION. WHERE CONDITIONS ARE NOT SPECIFICALLY INDICATED BUT ARE OF SIMILAR CHARACTER TO DETAILS SHOWN, SIMILAR DETAILS OF CONSTRUCTION SHALL BE USED, SUBJECT TO REVIEW AND APPROVAL BY THE ARCHITECT AND THE STRUCTURAL ENGINEER. ALL TYPICAL NOTES AND DETAILS SHOWN ON DRAWINGS SHALL APPLY, UNLESS NOTED OTHERWISE. TYPICAL DETAILS MAY NOT NECESSARILY BE INDICATED ON THE PLANS BUT SHALL STILL APPLY AS SHOWN OR DESCRIBED IN THE DETAILS. WHERE TYPICAL DETAILS ARE NOTED ON THE PLANS, THE SPECIFIED TYPICAL DETAIL SHALL BE USED. WHERE NO TYPICAL DETAIL IS NOTED, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CHOOSE THE APPROPRIATE TYPICAL DETAIL FROM THOSE PROVIDED OR REQUEST ADDITIONAL INFORMATION. THE CONTRACTOR SHALL SUBMIT ALL PROPOSED ALTERNATE TYPICAL DETAILS TO THOSE PROVIDED WITH RELATED CALCULATIONS TO THE ENGINEER FOR APPROVAL PRIOR TO SHOP DRAWING PRODUCTION AND FIELD USE.
9. ALL STRUCTURAL SYSTEMS, WHICH ARE TO BE COMPOSED OF COMPONENTS TO BE FIELD ERRECTED, SHALL BE SUPERVISED BY THE SUPPLIER DURING MANUFACTURING, DELIVERY, HANDLING, STORAGE AND ERECTION IN ACCORDANCE WITH INSTRUCTIONS PREPARED BY THE SUPPLIER.

10. SHOP DRAWINGS FOR THE FOLLOWING ITEMS SHALL BE SUBMITTED TO THE ARCHITECT AND STRUCTURAL ENGINEER FOR REVIEW PRIOR TO FABRICATION OF THESE ITEMS.
- REINFORCING STEEL (FOR CONCRETE CONSTRUCTION)  
STRUCTURAL STEEL  
DESIGN BUILD ELEMENTS
- CONTRACTOR SHALL SUBMIT WALL ELEVATION DRAWINGS OF AT LEAST 1/8" = 1'-0" SCALE INDICATING LOCATIONS OF CONNECTION EMBEDMENT'S AND WALL OPENINGS FOR REVIEW PRIOR TO CONSTRUCTION. CONTRACTOR SHALL COORDINATE WALL ELEVATION DRAWINGS WITH REINFORCEMENT SHOP DRAWINGS.
- APPROVED SETS OF ALL SHOP DRAWINGS SHALL ALSO BE SUBMITTED TO THE BUILDING DEPARTMENT.
11. SHOP DRAWING REVIEW: DIMENSIONS AND QUANTITIES ARE NOT REVIEWED BY THE ENGINEER OF RECORD, THEREFORE MUST BE VERIFIED BY THE CONTRACTOR. CONTRACTOR SHALL REVIEW AND STAMP DRAWINGS PRIOR TO REVIEW BY ENGINEER OF RECORD. CONTRACTOR SHALL REVIEW DRAWINGS FOR CONFORMANCE WITH THE MEANS, METHODS, TECHNIQUES, SEQUENCES AND OPERATIONS OF CONSTRUCTION, AND ALL SAFETY PRECAUTIONS AND PROGRAMS INCIDENTAL THERETO. SUBMITTALS SHALL INCLUDE A REPRODUCIBLE AND ONE COPY; REPRODUCIBLE WILL BE MARKED AND RETURNED WITHIN TWO WEEKS OF RECEIPT WITH A NOTATION INDICATING THAT THE SUBMITTAL HAS BEEN FOUND TO BE IN GENERAL CONFORMANCE WITH THE DESIGN OF THE BUILDING. THE SUBMITTED ITEMS SHALL NOT BE INSTALLED UNTIL THEY HAVE BEEN APPROVED BY THE BUILDING OFFICIAL.

- SHOP DRAWING SUBMITTALS PROCESSED BY THE ENGINEER ARE NOT CHANGE ORDERS. THE PURPOSE OF SHOP DRAWING SUBMITTALS BY THE CONTRACTOR IS TO DEMONSTRATE TO THE ENGINEER THAT THE CONTRACTOR UNDERSTANDS THE DESIGN CONCEPT, BY INDICATING WHICH MATERIAL IS INTENDED TO BE FURNISHED AND INSTALLED AND BY DETAILING THE INTENDED FABRICATION AND INSTALLATION METHODS. IF DEVIATIONS, DISCREPANCIES, OR CONFLICTS BETWEEN SHOP DRAWING SUBMITTALS AND THE CONTRACT DOCUMENTS ARE DISCOVERED EITHER PRIOR TO OR AFTER SHOP DRAWING SUBMITTALS ARE PROCESSED BY THE ENGINEER, THE DESIGN DRAWINGS AND SPECIFICATIONS SHALL CONTROL AND SHALL BE FOLLOWED.
12. SHOP DRAWINGS OF DESIGN BUILD COMPONENTS INCLUDING TEMPORARY SHORING AND PRE-ENGINEERED ASSEMBLIES SHALL BE STAMPED AND SIGNED BY A STRUCTURAL ENGINEER LICENSED IN THE STATE OF WASHINGTON. SHOP DRAWINGS SHALL BE APPROVED BY THE COMPONENT DESIGNER PRIOR TO REVIEW OF THE ARCHITECT OR ENGINEER OF RECORD FOR GENERAL CONFORMANCE WITH THE DESIGN OF THE BUILDING. THE COMPONENT DESIGNER IS RESPONSIBLE FOR CODE CONFORMANCE AND ALL NECESSARY CONNECTIONS NOT SPECIFICALLY CALLED OUT ON ARCHITECTURAL OR STRUCTURAL DRAWINGS. SHOP DRAWINGS SHALL INDICATE MAGNITUDE AND DIRECTION OF ALL LOADS IMPOSED ON BASIC STRUCTURE. DESIGN CALCULATIONS SHALL BE SUBMITTED WITH THE SHOP DRAWINGS.
13. DEFERRED SUBMITTALS: SHOP DRAWINGS AND CALCULATIONS OF DEFERRED SUBMITTAL COMPONENTS SHALL BE STAMPED AND SIGNED BY A STRUCTURAL ENGINEER LICENSED IN THE STATE OF WASHINGTON AND SHALL BE APPROVED BY THE COMPONENT DESIGNER PRIOR TO REVIEW BY THE ARCHITECT OR ENGINEER OF RECORD FOR GENERAL CONFORMANCE. ALL NECESSARY CONNECTIONS NOT SPECIFICALLY CALLED OUT ON THE ARCHITECTURAL OR STRUCTURAL DRAWINGS SHALL BE INCLUDED. SHOP DRAWINGS SHALL INCLUDE THE MAGNITUDE AND DIRECTION OF ALL LOADS IMPOSED ON THE BASIC STRUCTURE. DESIGN CALCULATIONS SHALL ACCOMPANY ALL DEFERRED SUBMITTALS. THE ARCHITECT OR CONTRACTOR SHALL FORWARD DEFERRED SUBMITTALS TO THE BUILDING OFFICIAL WHERE REQUIRED.
- DEFERRED SUBMITTAL BUILDING COMPONENTS FOR THIS PROJECT SHALL INCLUDE:
- DESIGN-BUILD ELEMENTS  
PREFABRICATED STEEL PEDESTRIAN BRIDGE
- QUALITY ASSURANCE
14. SPECIAL INSPECTION SHALL BE PROVIDED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS AND SECTIONS 110 AND 1705 OF THE INTERNATIONAL BUILDING CODE BY A QUALIFIED TESTING AGENCY DESIGNATED BY THE ARCHITECT, AND RETAINED BY THE BUILDING OWNER. THE ARCHITECT, STRUCTURAL ENGINEER, AND BUILDING DEPARTMENT SHALL BE FURNISHED WITH COPIES OF ALL INSPECTION AND TEST RESULTS. SPECIAL INSPECTION OF THE FOLLOWING TYPES OF CONSTRUCTION IS REQUIRED UNLESS NOTED OTHERWISE.
- STRUCTURAL STEEL FABRICATION AND ERECTION PER AISC 360  
CONCRETE CONSTRUCTION PER TABLE 1705.3  
SOIL CONDITIONS, FILL PLACEMENT, AND DENSITY PER TABLE 1705.6  
EPOXY GROUTED INSTALLATIONS PER MANUFACTURER  
DIAMOND PIER FOUNDATIONS PER MANUFACTURER

PERIODIC INSPECTION: INSPECTION SHALL BE PERFORMED AT INTERVALS NECESSARY TO CONFIRM THAT WORK REQUIRING SPECIAL INSPECTION IS IN COMPLIANCE WITH REQUIREMENTS.  
CONTINUOUS INSPECTION: INSPECTOR SHALL BE ONSITE AND OBSERVE THE WORK REQUIRING INSPECTION AT ALL TIMES THAT WORK IS PERFORMED.

15. STRUCTURAL OBSERVATION SHALL BE PERFORMED IN ACCORDANCE WITH SECTIONS 1704.6 OF THE INTERNATIONAL BUILDING CODE FOR THE FOLLOWING BUILDING ELEMENTS:
- CONCRETE CONSTRUCTION  
STRUCTURAL STEEL CONSTRUCTION

- THE CONTRACTOR SHALL PROVIDE THE ENGINEER OF RECORD ADEQUATE NOTICE TO SCHEDULE APPROPRIATE SITE VISITS FOR STRUCTURAL OBSERVATION.
- STRUCTURAL OBSERVATION MEANS THE VISUAL OBSERVATION OF THE STRUCTURAL SYSTEM, FOR GENERAL CONFORMANCE TO THE APPROVED PLANS AND SPECIFICATIONS, AT SIGNIFICANT CONSTRUCTION STAGES AND AT COMPLETION OF THE STRUCTURAL SYSTEM. STRUCTURAL OBSERVATION DOES NOT INCLUDE OR WAIVE THE RESPONSIBILITY FOR THE INSPECTIONS REQUIRED BY SECTION 110, 1705, OR OTHER SECTIONS OF THE INTERNATIONAL BUILDING CODE.
- THE OWNER SHALL EMPLOY THE ENGINEER OR ARCHITECT RESPONSIBLE FOR THE STRUCTURAL DESIGN, TO PERFORM STRUCTURAL OBSERVATION. OBSERVED DEFICIENCIES SHALL BE REPORTED IN WRITING TO THE OWNER'S REPRESENTATIVE, SPECIAL INSPECTOR, CONTRACTOR, AND THE BUILDING OFFICIAL. THE STRUCTURAL OBSERVER SHALL SUBMIT TO THE BUILDING OFFICIAL A WRITTEN STATEMENT THAT THE SITE VISITS HAVE BEEN MADE AND IDENTIFYING ANY REPORTED DEFICIENCIES WHICH, TO THE BEST OF THE STRUCTURAL OBSERVER'S KNOWLEDGE, HAVE NOT BEEN RESOLVED.
- GEOTECHNICAL
16. FOUNDATION NOTES: SUBGRADE PREPARATION INCLUDING DRAINAGE, EXCAVATION, COMPACTION, AND FILLING REQUIREMENTS, SHALL CONFORM STRICTLY WITH RECOMMENDATIONS GIVEN IN THE SOILS REPORT OR AS DIRECTED BY THE SOILS ENGINEER. FOOTINGS SHALL BEAR ON SOLID UNDISTURBED EARTH OR COMPACTED STRUCTURAL FILL AT LEAST 24" BELOW LOWEST ADJACENT FINISHED GRADE. FOOTING DEPTHS/ELEVATIONS SHOWN ON PLANS (OR IN DETAILS) ARE MINIMUM AND FOR GUIDANCE ONLY; THE ACTUAL ELEVATIONS OF FOOTINGS MUST BE ESTABLISHED BY THE CONTRACTOR IN THE FIELD WORKING WITH THE TESTING LAB AND SOILS ENGINEER. BACKFILL BEHIND ALL RETAINING WALLS WITH FREE DRAINING GRANULAR FILL AND PROVIDE FOR SUBSURFACE DRAINAGE AS NOTED IN THE SOILS REPORT.
17. ALLOWABLE SOIL PRESSURE AT PEDESTRIAN BRIDGE WING WALLS (NATIVE SOILS / STRUCTURAL FILL). . . . . 2000/2000 PSF  
ALLOWABLE SOIL PRESSURE AT TOILET ENCLOSURE (NATIVE SOILS / STRUCTURAL FILL) . . . . . 3000/3000 PSF  
LATERAL EARTH PRESSURE (RESTRAINED/UNRESTRAINED). . . . . 55 PCF/34 PCF  
ALLOWABLE PASSIVE EARTH PRESSURE (FS OF 1.5 INCLUDED). . . . . 300 PCF  
COEFFICIENT OF FRICTION (FS OF 1.5 INCLUDED). . . . . 0.35  
TRAFFIC SURCHARGE PRESSURE. . . . . PER FIGURE 11 IN GEOTECH REPORT  
SEISMIC SURCHARGE PRESSURE (UNIFORM LOAD) . . . . . 12H PSF  
4" DIA PILE CAPACITY WITH PILE TIP DEPTH AT 20'-0" WHERE LIQUEFACTION POTENTIAL HAS BEEN MITIGATED IN ACCORDANCE WITH THE GEOTECHNICAL REPORT  
    STATIC CASE(COMPRESSION/TENSION). . . . . 2.3 TONS/ 0.37 TONS  
    SEISMIC CASE(COMPRESSION/TENSION). . . . . 2.0 TONS/ 0.20 TONS
- BATTERED PILE CAPACITY (WHERE LIQUEFACTION POTENTIAL HAS BEEN MITIGATED IN ACCORDANCE WITH THE GEOTECHNICAL REPORT) IS DETERMINED BY RESOLVING THE PILE BATTER ANGLE INTO ITS GEOMETRIX HORIZONTAL AND VERTICAL COMPONENTS AND MULTIPLYING BY THE ESTIMATED VERTICAL PILE CAPACITY BASED ON PILE TIP EMBEDMENT DEPTH.
- SOILS REPORT REFERENCE:  
GEOTECHNICAL REPORT – MEADOWDALE BEACH PARK AND ESTUARY RESTORATION  
SNOHOMISH COUNTY, WASHINGTON, 21-1-22288-060, BY SHANNON & WILSON, INC.  
DATED FEBRUARY 16, 2018
18. PIN PILES SHOWN ON THE PLAN SHALL BE 4" DIAMETER SCHEDULE 80. THE MAXIMUM CAPACITY OF 4" PILES (WHERE LIQUIDUEFACTION POTENTIAL HAS BEEN MITIGATED IN ACCORDANCE WITH THE GEOTECHNICAL REPORT) SHALL BE PER FIGURE 13 PER THE GEOTECHNICAL REPORT. PILES USED IN COMMON TO RESIST LATERAL EARTH PRESSURES SHALL HAVE THE ADDITIONAL REQUIREMENT OF BEING EMBEDDED A MINIMUM OF 10 FEET BELOW RETAINED GRADE. THE MAXIMUM PILE ECCENTRICITY SHALL BE 2 INCHES. GEOTECHNICAL SPECIAL INSPECTION SHALL BE SUBJECT TO THE DISCRETION OF THE GEOTECHNICAL ENGINEER AND THE BUILDING DEPARTMENT. SEE PLANS FOR OTHER SIZES AND CRITERIA.

CONCRETE

19. CONCRETE SHALL BE MIXED, PROPORTIONED, CONVEYED AND PLACED IN ACCORDANCE WITH ACI 301, INCLUDING TESTING PROCEDURES. CONCRETE SHALL ATTAIN A 28-DAY STRENGTH OF f'c = 3,000 PSI AND MIX SHALL CONTAIN NOT LESS THAN 5-1/2 SACKS OF CEMENT PER CUBIC YARD AND SHALL BE PROPORTIONED TO PRODUCE A SLUMP OF 5" OR LESS. REQUIRED CONCRETE STRENGTH IS BASED ON THE DURABILITY REQUIREMENTS OF SECTION 1904 OF THE IBC. DESIGN STRENGTH IS f'c = 2,500 PSI.
20. A CONCRETE PERFORMANCE MIX SHALL BE SUBMITTED TO THE STRUCTURAL ENGINEER AND THE BUILDING DEPARTMENT FOR APPROVAL TWO WEEKS PRIOR TO PLACING ANY CONCRETE. THE PERFORMANCE MIX SHALL INCLUDE THE AMOUNTS OF CEMENT, FINE AND COARSE AGGREGATE, WATER AND ADMIXTURES AS WELL AS THE WATER CEMENT RATIO, SLUMP, CONCRETE YIELD AND SUBSTANTIATING STRENGTH DATA IN ACCORDANCE WITH ACI 318-14, SECTIONS 26.4.3 AND 26.4.4. THE USE OF A PERFORMANCE MIX REQUIRES BATCH PLANT INSPECTION, THE COST OF WHICH SHALL BE PAID BY THE GENERAL CONTRACTOR. REVIEW OF MIX SUBMITTALS BY THE ENGINEER OF RECORD INDICATES ONLY THAT INFORMATION PRESENTED CONFORMS GENERALLY WITH CONTRACT DOCUMENTS. CONTRACTOR OR SUPPLIER MAINTAINS FULL RESPONSIBILITY FOR SPECIFIED PERFORMANCE.
21. ALL CONCRETE WITH SURFACES EXPOSED TO WEATHER OR STANDING WATER SHALL BE AIR-ENTRAINED WITH AN AIR-ENTRAINING AGENT CONFORMING TO ASTM C260, C494, AND C618. TOTAL AIR CONTENT FOR FROST-RESISTANT CONCRETE SHALL BE IN ACCORDANCE WITH ACI 318-14, TABLE 19.3.2.1 MODERATE EXPOSURE, F1.
22. REINFORCING STEEL SHALL CONFORM TO ASTM A615 (INCLUDING SUPPLEMENT S1), GRADE 60, FY = 60,000 PSI. EXCEPTIONS: ANY BARS SPECIFICALLY SO NOTED ON THE DRAWINGS SHALL BE GRADE 40, FY = 40,000 PSI. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A-185. SPIRAL REINFORCEMENT SHALL BE DEFORMED WIRE CONFORMING TO ASTM A615, GRADE 60, FY = 60,000 PSI.
23. DETAILING OF REINFORCING STEEL (INCLUDING HOOKS AND BENDS) SHALL BE IN ACCORDANCE WITH ACI 315-99 AND 318-14. LAP ALL CONTINUOUS REINFORCEMENT #5 AND SMALLER 40 BAR DIAMETERS OR 2'-0" MINIMUM. PROVIDE CORNER BARS AT ALL WALL AND FOOTING INTERSECTIONS. LAP CORNER BARS #5 AND SMALLER 40 BAR DIAMETERS OR 2'-0" MINIMUM. LAPS OF LARGER BARS SHALL BE MADE IN ACCORDANCE WITH ACI 318-14, CLASS B. LAP ADJACENT MATS OF WELDED WIRE FABRIC A MINIMUM OF 8' AT SIDES AND ENDS.
- NO BARS PARTIALLY EMBEDDED IN HARDENED CONCRETE SHALL BE FIELD BENT UNLESS SPECIFICALLY SO DETAILED OR APPROVED BY THE STRUCTURAL ENGINEER.
24. CONCRETE PROTECTION (COVER) FOR REINFORCING STEEL SHALL BE AS FOLLOWS:
- FOOTINGS AND OTHER UNFORMED SURFACES CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH . . . . . 3"  
FORMED SURFACES EXPOSED TO EARTH OR WEATHER (#6 BARS OR LARGER) . . . . 2"  
FORMED SURFACES EXPOSED TO EARTH OR WEATHER (#5 BARS OR SMALLER). . . 1-1/2"  
COLUMN TIES OR SPIRALS AND BEAM STIRRUPS . . . . . 1-1/2"  
SLABS AND WALLS (INT. FACE). . . GREATER OF BAR DIAMETER PLUS 1/8" OR 3/4"
25. CONCRETE WALL REINFORCING--PROVIDE THE FOLLOWING UNLESS DETAILED OTHERWISE:
- 6" WALLS #4 @ 12 HORIZ. #4 @ 12 VERTICAL 1 CURTAIN  
8" WALLS #5 @ 12 HORIZ. #5 @ 12 VERTICAL 1 CURTAIN  
10" WALLS #4 @ 12 HORIZ. #4 @ 12 VERTICAL 2 CURTAINS  
12" WALLS #4 @ 12 HORIZ. #4 @ 12 VERTICAL 2 CURTAINS
26. CAST-IN-PLACE CONCRETE: SEE ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS AND DIMENSIONS OF DOOR AND WINDOW OPENINGS IN ALL CONCRETE WALLS. SEE MECHANICAL DRAWINGS FOR SIZE AND LOCATION OF MISCELLANEOUS MECHANICAL OPENINGS THROUGH CONCRETE WALLS. SEE ARCHITECTURAL DRAWINGS FOR ALL GROOVES, NOTCHES, CHAMFERS, FEATURE STRIPS, COLOR, TEXTURE, AND OTHER FINISH DETAILS AT ALL EXPOSED CONCRETE SURFACES, BOTH CAST-IN-PLACE AND PRECAST.
27. NON-SHRINK GROUT SHALL BE FURNISHED BY AN APPROVED MANUFACTURER AND SHALL BE MIXED AND PLACED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S PUBLISHED RECOMMENDATIONS. GROUT STRENGTH SHALL BE AT LEAST EQUAL TO THE MATERIAL ON WHICH IT IS PLACED (3000 PSI MINIMUM).

APPROVED FOR CONSTRUCTION  
BY: \_\_\_\_\_  
R/W PERMIT NO. \_\_\_\_\_  
DATE \_\_\_\_\_  
PFN: 19-103913LDA

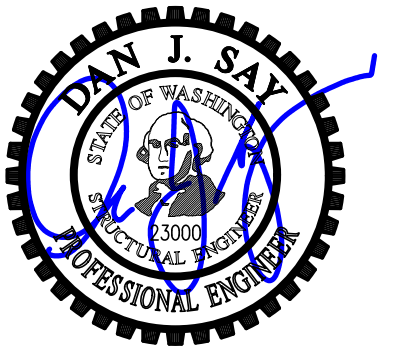
100% CONSTRUCTION DRAWINGS / BID SET

MEADOWDALE BEACH PARK  
AND ESTUARY DESIGN  
PFN 19-103913LDA

GENERAL STRUCTURAL NOTES

S1.1

SHEET # 55 OF 81



REVISIONS				
REV	DATE	BY	APP'D	DESCRIPTION

DESIGNED BY: LSD  
DRAWN BY: NHD  
CHECKED BY: BDM  
APPROVED BY: DJS  
SCALE: \_\_\_\_\_  
DATE: August 2020



SECTION 5, TOWNSHIP 27 N., RANGE 4 E  
General Structural Notes

THE FOLLOWING APPLY UNLESS SHOWN OTHERWISE ON THE DRAWINGS

ANCHORAGE

28. EPOXY-GROUTED ITEMS (THREADED RODS OR REINFORCING BAR) SPECIFIED ON THE DRAWINGS SHALL BE INSTALLED USING "HIT-RE 500 V3" AS MANUFACTURED BY HILTI CORP. INSTALL IN STRICT ACCORDANCE WITH ICC-ES REPORT NO. ESR-3814. CONCRETE BASE TEMPERATURE MUST BE BETWEEN 23 DEGREES, AND 104 DEGREES, F AT THE TIME OF INSTALLATION. RODS SHALL BE ASTM A-36 UNLESS OTHERWISE NOTED. PERIODIC SPECIAL INSPECTION OF INSTALLATION IS REQUIRED TO VERIFY ANCHOR OR EMBEDDED BAR TYPE AND DIMENSIONS, LOCATION, ADHESIVE IDENTIFICATION AND EXPIRATION, HOLE DIMENSIONS, HOLE CLEANING PROCEDURE, ANCHOR EMBEDMENT, AND ADHERENCE TO THE INSTALLATION INSTRUCTIONS. OVERHEAD INSTALLATIONS REQUIRE THE USE OF PISTON PLUGS (HIT-SZ,-IP) DURING INJECTION. OVERHEAD ANCHORS OR BARS MUST BE SUPPORTED WITH HIT-OWH, OR EQUIVALENT, UNTIL FULLY CURED. CONTINUOUS SPECIAL INSPECTION IS REQUIRED FOR HORIZONTAL AND OVERHEAD INSTALLATIONS.

STEEL

29. STRUCTURAL STEEL DESIGN, FABRICATION, AND ERECTION SHALL BE BASED ON:  
  
A. AISC 360 AND SECTION 2205.2 OF THE INTERNATIONAL BUILDING CODE.  
B. APRIL 14, 2010 AISC CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES AMENDED AS FOLLOWS: AS NOTED IN THE CONTRACT DOCUMENTS, BY THE DELETION OF PARAGRAPH 4.4.1, AND REVISE REFERENCE FROM "STRUCTURAL DESIGN DRAWINGS" TO "CONTRACT DOCUMENTS" IN PARAGRAPH 3.1.  
C. SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS.

29. STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING REQUIREMENTS:

TYPE OF MEMBER	ASTM SPECIFICATION	FY
A. OTHER SHAPES, PLATES, AND RODS	A36	36 KSI
B. OTHER SHAPES AND PLATES (NOTED GRADE 50 ON PLANS)	A572 (GRADE 50)	50 KSI
C. PIPE COLUMNS	A53 (E OR S, GR.B)	35 KSI
D. CONNECTION BOLTS (3/4" ROUND, UNLESS SHOWN OTHERWISE)	A307	

30. ARCHITECTURALLY EXPOSED STRUCTURAL STEEL SHALL CONFORM TO SECTION 10 OF THE AISC CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES.

31. ALL STEEL EXPOSED TO THE WEATHER OR IN CONTACT WITH GROUND SHALL BE CORROSION PROTECTED BY GALVANIZATION OR PROVIDED WITH EXTERIOR PAINT SYSTEM, UNLESS OTHERWISE NOTED.

32. SHOP PRIME ALL STEEL EXCEPT:

- A. STEEL ENCASED IN CONCRETE.
- B. SURFACES TO BE WELDED.
- C. CONTACT SURFACES AT HIGH-STRENGTH BOLTS.
- D. MEMBERS TO BE GALVANIZED.
- E. MEMBERS WHICH WILL BE CONCEALED BY INTERIOR FINISHES.
- F. SURFACES TO RECEIVE SPRAYED FIREPROOFING.
- G. SURFACES TO RECEIVE OTHER SPECIAL SHOP PRIMERS.

33. ALL ANCHORS EMBEDDED IN MASONRY OR CONCRETE SHALL BE A307 HEADED BOLTS OR A36 THREADED ROD WITH AN ASTM 563 HEAVY HEX NUT TACK WELDED ON THE EMBEDDED END.

34. ALL WELDING SHALL BE IN CONFORMANCE WITH AISC AND AWS STANDARDS AND SHALL BE PERFORMED BY WABO CERTIFIED WELDERS USING E70XX ELECTRODES. ONLY PREQUALIFIED WELDS (AS DEFINED BY AWS) SHALL BE USED. ALL COMPLETE JOINT PENETRATION GROOVE WELDS SHALL BE MADE WITH A FILLER MATERIAL THAT HAS A MINIMUM CVN TOUGHNESS OF 20 FT-LBS AT -20 DEGREES F AND 40 FT - LBS AT 70 DEGREES F, AS DETERMINED BY AWS CLASSIFICATION OR MANUFACTURER CERTIFICATION.

WOOD

35. FRAMING LUMBER SHALL BE S-DRY, KD, OR MC-19, AND GRADED AND MARKED IN CONFORMANCE WITH WCLIB STANDARD "GRADING RULES FOR WEST COAST LUMBER NO. 17", OR WMPA STANDARD, "WESTERN LUMBER GRADING RULES 2011". FURNISH TO THE FOLLOWING MINIMUM STANDARDS:

JOISTS AND BEAMS	(2X & 3X MEMBERS)	HEM-FIR NO. 2 MINIMUM BASE VALUE, Fb = 850 PSI
	(4X MEMBERS)	DOUGLAS FIR-LARCH NO. 1 MINIMUM BASE VALUE, Fb = 1000 PSI
BEAMS	(INCL. 6X AND LARGER)	DOUGLAS FIR-LARCH NO. 1 MINIMUM BASE VALUE, Fb = 1350 PSI
POSTS	(4X MEMBERS)	DOUGLAS FIR-LARCH NO. 2 MINIMUM BASE VALUE, Fc = 1350 PSI
	(6X AND LARGER)	DOUGLAS FIR-LARCH NO. 1 MINIMUM BASE VALUE, Fc = 1000 PSI
STUDS, PLATES & MISC. FRAMING:		DOUGLAS-FIR-LARCH OR HEM-FIR NO. 2

36. LOG MEMBERS SHALL BE GRADED AND MARKED IN ACCORDANCE WITH ASTM D3957. THE GRADE MARK OF AN APPROVED LUMBER GRADING OR INSPECTION AGENCY SHALL IDENTIFY LOG MEMBERS OR A CERTIFICATE OF INSPECTION MUST ACCOMPANY THE LOG MEMBERS TO SPECIES AND GRADE ISSUED BY AN APPROVED LUMBER GRADING OR INSPECTION AGENCY.

37. PLYWOOD SHEATHING SHALL BE GRADE C-D, EXTERIOR GLUE OR STRUCTURAL II, EXTERIOR GLUE IN CONFORMANCE WITH DOC PS 1 OR PS 2. ORIENTED STRAND BOARD OF EQUIVALENT THICKNESS, EXPOSURE RATING AND PANEL INDEX MAY BE USED IN LIEU OF PLYWOOD.

ROOF SHEATHING SHALL BE 1/2" (NOMINAL) WITH SPAN RATING 32/16.

FLOOR SHEATHING SHALL BE 3/4" (NOMINAL) WITH SPAN RATING 48/24.

WALL SHEATHING SHALL BE 1/2" (NOMINAL) WITH SPAN RATING 24/0.

PROVIDE APPROVED PLYWOOD EDGE CLIPS CENTERED BETWEEN JOISTS/TRUSSES AT UNBLOCKED ROOF SHEATHING EDGES. ALL FLOOR SHEATHING EDGES SHALL HAVE APPROVED T&G JOINTS OR SHALL BE SUPPORTED WITH SOLID BLOCKING. ALLOW 1/8" SPACING AT ALL PANEL EDGES AND ENDS OF FLOOR AND ROOF SHEATHING.

REFER TO WOOD FRAMING NOTES BELOW FOR TYPICAL NAILING REQUIREMENTS.

38. TONGUE-AND-GROOVE STRUCTURAL ROOF AND FLOOR DECKING SHALL BE INSTALLED AS FOLLOWS: 2X DECKING SHALL BE TOENAILED THROUGH THE TONGUE AND FACE - NAILED WITH ONE 16d NAIL PER PIECE PER SUPPORT. 3X AND 4X DECKING SHALL BE TOENAILED WITH ONE 40d COMMON NAIL AND FACENAILED WITH ONE 60d COMMON NAIL PER SUPPORT. COURSES SHALL BE SPIKED TOGETHER WITH 8" SPIKES @ 30" O.C. (MAXIMUM) AND @ 10" (MAXIMUM) FROM THE END OF EACH PIECE. SPIKES SHALL BE INSTALLED IN PREDRILLED EDGE HOLES. DECKING SHALL BE PLACED WITH A CONTROLLED RANDOM LAYOUT UNLESS OTHERWISE NOTED AND SHALL EXTEND ACROSS A MINIMUM OF THREE SPANS. EACH PLANK SHALL BEAR ON AT LEAST ONE SUPPORT. ALL JOINTS SHALL BE END MATCHED AND ALL PLANKS NAILED TOGETHER WITHIN ONE FOOT OF EACH SIDE OF THE END JOINT. END JOINTS IN ADJACENT PLANKS SHALL BE AT LEAST TWO FEET APART AND END JOINTS IN ALTERNATE PLANKS SHALL BE MORE THAN ONE FOOT APART WHEN MEASURED ALONG THE LENGTH OF THE DECKING. END JOINTS NOT OCCURRING OVER SUPPORTS SHALL BE MATCHED TONGUED AND GROOVED OR SHALL BE CONNECTED WITH 10 GAUGE METAL SPLINES DRIVEN INTO PRE-CUT SLOTS. TONGUE AND GROOVE JOINTS SHALL BE GLUED WITH CONSTRUCTION ADHESIVE WHERE NOTED ON PLAN.

39. ALL WOOD IN DIRECT CONTACT WITH CONCRETE OR MASONRY SHALL BE PRESSURE-TREATED WITH AN APPROVED PRESERVATIVE OR (2) LAYERS OF ASPHALT IMPREGNATED BUILDING PAPER SHALL BE PROVIDED BETWEEN UNTREATED WOOD AND CONCRETE OR MASONRY.

40. PRESERVATIVE TREATED WOOD SHALL BE TREATED PER AWPA STANDARD U1 TO THE USE CATEGORY EQUAL TO OR HIGHER THAN THE INTENDED APPLICATION. TREATED WOOD FOR ABOVE GROUND USE SHALL BE TREATED TO AWPA UC3B. WOOD IN CONTINUOUS CONTACT WITH FRESH WATER OR SOIL SHALL BE TREATED TO AWPA UC4A. WOOD FOR USE IN PERMANENT FOUNDATIONS SHALL BE TREATED TO AWPA UC4B.

41. WOOD TREATED FOR FIRE RESISTANCE SHALL MEET THE REQUIREMENTS OF ASTM E 84 OR UL 723 AND HAVE A LISTED FLAME SPREAD INDEX OF 25 OR LESS. FIRE RETARDANT TREATED LUMBER AND WOOD STRUCTURAL PANELS SHALL BE LABELED IN ACCORDANCE WITH IBC 2303.2.4. WOOD TREATED FOR FIRE PROTECTION FOR USE IN INTERIOR ABOVE GROUND CONSTRUCTION AND CONTINUOUSLY PROTECTED FROM WEATHER AND OTHER SOURCES OF MOISTURE SHALL BE TREATED TO AWPA UCFA. WOOD TREATED FOR FIRE PROTECTION FOR USE IN EXTERIOR ABOVE GROUND CONSTRUCTION AND SUBJECT TO WETTING OR OTHER SOURCES OF MOISTURE SHALL BE TREATED TO AWPA UCFB.

42. FASTENERS AND TIMBER CONNECTORS USED WITH TREATED WOOD SHALL HAVE CORROSION RESISTANCE AS INDICATED IN THE FOLLOWING TABLE, UNLESS OTHERWISE NOTED.

WOOD TREATMENT	CONDITION	PROTECTION
HAS NO AMMONIA CARRIER	INTERIOR DRY	G90 GALVANIZED
CONTAINS AMMONIA CARRIER	INTERIOR DRY	G185 OR A185 HOT DIPPED OR CONTINUOUS HOT-GALVANIZED PER ASTM A653
CONTAINS AMMONIA CARRIER	INTERIOR WET	TYPE 304 OR 316 STAINLESS
CONTAINS AMMONIA CARRIER	EXTERIOR	TYPE 304 OR 316 STAINLESS
AZCA	ANY	TYPE 304 OR 316 STAINLESS

INTERIOR DRY CONDITIONS SHALL HAVE WOOD MOISTURE CONTENT LESS THAN 19%. WOOD MOISTURE CONTENT IN OTHER CONDITIONS (INTERIOR WET, EXTERIOR WET, AND EXTERIOR DRY) IS EXPECTED TO EXCEED 19%. CONNECTORS AND THEIR FASTENERS SHALL BE THE SAME MATERIAL. COMPLY WITH THE TREATMENT MANUFACTURERS RECOMMENDATIONS FOR PROTECTION OF METAL.

43. TIMBER CONNECTORS CALLED OUT BY LETTERS AND NUMBERS SHALL BE "STRONG-TIE" BY SIMPSON COMPANY, AS SPECIFIED IN THEIR CATALOG NUMBER C-C-2017. EQUIVALENT DEVICES BY OTHER MANUFACTURERS MAY BE SUBSTITUTED, PROVIDED THEY HAVE ICC-ES APPROVAL FOR EQUAL OR GREATER LOAD CAPACITIES. PROVIDE NUMBER AND SIZE OF FASTENERS AS SPECIFIED BY MANUFACTURER FOR MAXIMUM LOAD CARRYING CAPACITY. CONNECTORS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

WHERE CONNECTOR STRAPS CONNECT TWO MEMBERS, PLACE ONE-HALF OF THE NAILS OR BOLTS IN EACH MEMBER.

ALL SHIMS SHALL BE SEASONED AND DRIED AND THE SAME GRADE (MINIMUM)AS MEMBERS CONNECTED.

44. WOOD FASTENERS

A. NAIL SIZES SPECIFIED ON DRAWINGS ARE BASED ON THE FOLLOWING SPECIFICATIONS:

SIZE	LENGTH	DIAMETER
6d	2"	0.113"
8d	2-1/2"	0.131"
10d	3"	0.148"
12d	3-1/4"	0.148"
16d BOX	3-1/2"	0.135"

IF CONTRACTOR PROPOSES THE USE OF ALTERNATE NAILS, THEY SHALL SUBMIT NAIL SPECIFICATIONS TO THE STRUCTURAL ENGINEER (PRIOR TO CONSTRUCTION) FOR REVIEW AND APPROVAL.

NAILS - PLYWOOD (APA RATED SHEATHING) FASTENERS TO FRAMING SHALL BE DRIVEN FLUSH TO FACE OF SHEATHING WITH NO COUNTERSINKING PERMITTED. TOE-NAILS SHALL BE DRIVEN AT AN ANGLE OF 30 DEGREES WITH THE MEMBER AND STARTED 1/3 THE LENGTH OF THE NAIL FROM THE MEMBER END.

B. ALL BOLTS IN WOOD MEMBERS SHALL CONFORM TO ASTM A307. PROVIDE WASHERS UNDER THE HEADS AND NUTS OF ALL BOLTS AND LAG BOLTS BEARING ON WOOD. INSTALLATION OF LAG BOLTS SHALL CONFORM TO THE NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION WITH A LEAD BORE HOLE OF 60 TO 70 PERCENT OF THE SHANK DIAMETER. LEAD HOLES ARE NOT REQUIRED FOR 3/8" AND SMALLER LAG SCREWS.

45. NOTCHES AND HOLES IN WOOD FRAMING:

A. NOTCHES ON THE ENDS OF SOLID SAWN JOISTS AND RAFTERS SHALL NOT EXCEED ONE-FOURTH THE JOIST DEPTH. NOTCHES IN THE TOP OR BOTTOM OF SOLID SAWN JOISTS SHALL NOT EXCEED ONE-SIXTH THE DEPTH AND SHALL NOT BE LOCATED IN THE MIDDLE THIRD OF THE SPAN. HOLES BORED IN SOLID SAWN JOISTS AND RAFTERS SHALL NOT BE WITHIN 2 INCHES OF THE TOP OR BOTTOM OF THE JOIST, AND THE DIAMETER OF ANY SUCH HOLE SHALL NOT EXCEED ONE-THIRD THE DEPTH OF THE JOIST.

46. WOOD FRAMING NOTES--THE FOLLOWING APPLY UNLESS OTHERWISE SHOWN ON THE PLANS:

A. ALL WOOD FRAMING DETAILS NOT SHOWN OTHERWISE SHALL BE CONSTRUCTED TO THE MINIMUM STANDARDS OF THE INTERNATIONAL BUILDING CODE, THE AITC "TIMBER CONSTRUCTION MANUAL" AND THE AF&PA "NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION". MINIMUM NAILING, UNLESS OTHERWISE NOTED, SHALL CONFORM TO IBC TABLE 2304.10.1. COORDINATE THE SIZE AND LOCATION OF ALL OPENINGS WITH MECHANICAL AND ARCHITECTURAL DRAWINGS.

APPROVED FOR CONSTRUCTION

BY: \_\_\_\_\_

R/W PERMIT NO. \_\_\_\_\_

DATE \_\_\_\_\_

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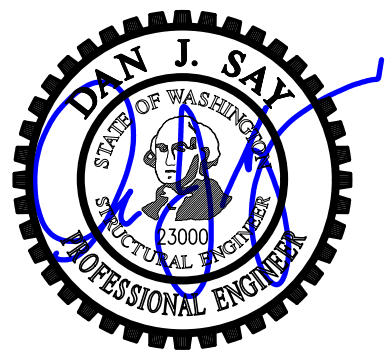
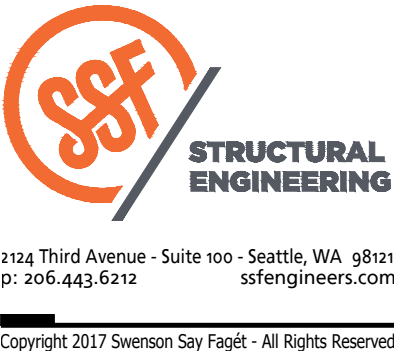
100% CONSTRUCTION DRAWINGS / BID SET

MEADOWDALE BEACH PARK  
AND ESTUARY DESIGN  
PFN 19-103913LDA

GENERAL STRUCTURAL NOTES

S1.2

SHEET # 56 OF 81



REVISIONS					
REV	DATE	BY	APP'D	DESCRIPTION	

DESIGNED BY: LSD  
DRAWN BY: NHD  
CHECKED BY: BDM  
APPROVED BY: DJS  
  
SCALE: \_\_\_\_\_  
DATE: August 2020

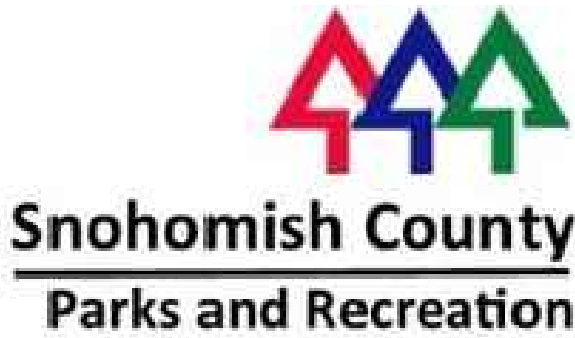
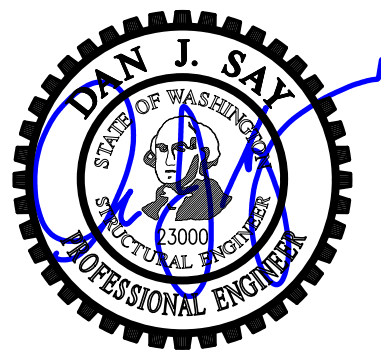




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DATE \_\_\_\_\_  
**PFN: 19-103913LDA**

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ONE INCH  
↑  
AT FULL SIZE IF NOT ONE  
INCH SCALE ACCORDINGLY  
↓



REVISIONS					
REV	DATE	BY	APP'D	DESCRIPTION	

DESIGNED BY: LSD  
DRAWN BY: NHD  
CHECKED BY: BDM  
APPROVED BY: DJS  
SCALE: 1" = 30'  
DATE: August 2020

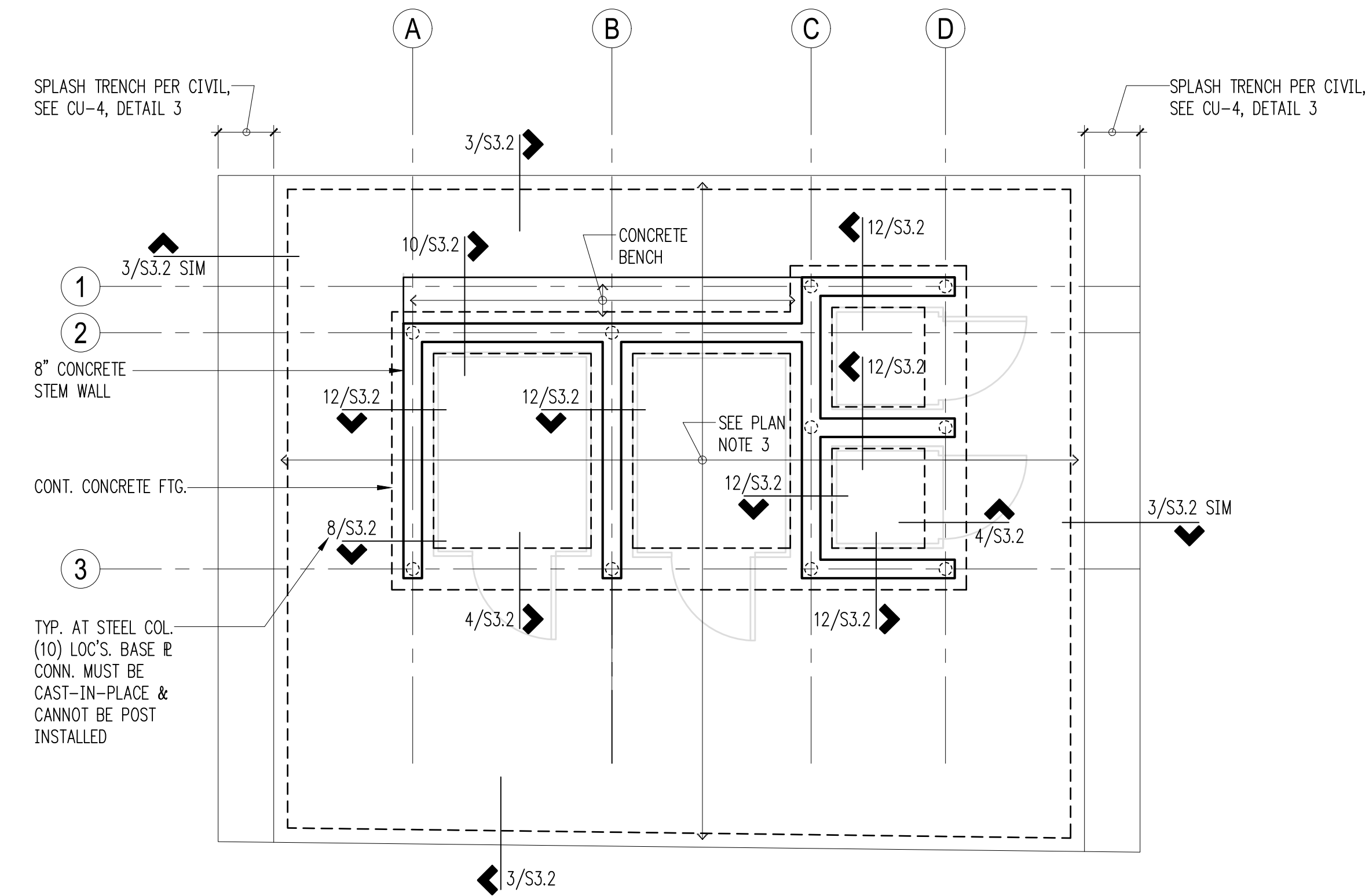
**MEADOWDALE BEACH PARK  
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PFN 19-103913LDA

**STRUCTURAL OVERVIEW SITE PLAN**

**S2.1**

SHEET # 57 OF 81





Plan Notes

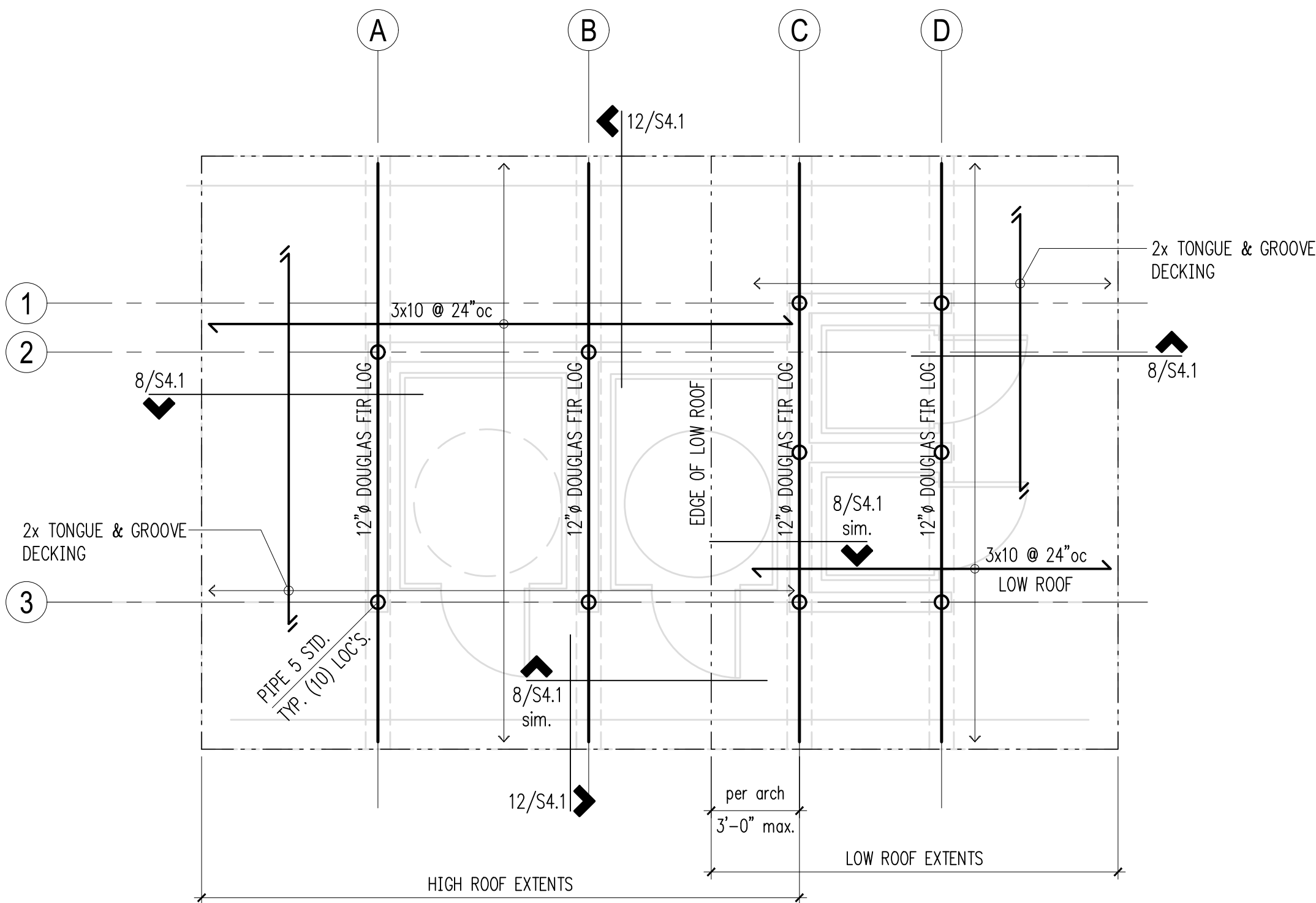
1. DO NOT SCALE DRAWINGS. REFER TO ARCHITECTURAL DRAWINGS FOR ALL DIMENSIONS.
2. THE BOTTOM OF ALL FOOTINGS SHALL BE 24" MINIMUM BELOW EXTERIOR GRADE.
3. EXTERIOR SLABS ON GRADE SHALL BE 4" MINIMUM THICKNESS. REINFORCE WITH #3 AT 16" O.C. CENTERED IN SLAB. BELOW SLAB PROVIDE 12" MINIMUM FREE DRAINING GRAVEL OVER FIRM NATIVE SOILS OR STRUCTURAL FILL. SEE 8/S3.1 FOR 'TYPICAL SLAB JOINTS' DETAIL.
4. REFER TO S3.1 FOR TYPICAL CONCRETE DETAILS.
5. REFER TO GENERAL STRUCTURAL NOTES FOR ADDITIONAL REQUIREMENTS.

Legend

- STEM WALL & FOOTING
- EXTENTS
- STEEL PIPE COLUMN ABOVE

Foundation Plan

Scale: 1/4" = 1'-0"



Plan Notes

1. DO NOT SCALE DRAWINGS. REFER TO ARCHITECTURAL DRAWINGS FOR ALL DIMENSIONS.
2. TYPICAL ROOF FRAMING CONSISTS OF ROOFING PER ARCHITECTURAL DRAWINGS OVER 1/2" CDX APA RATED SHEATHING (EXPOSURE 1) OVER 2x TONGUE AND GROOVE DECKING. FACE GRAIN OF PLYWOOD SHEATHING TO BE PERPENDICULAR TO 2x DECKING, U.N.O.
3. NAIL ROOF SHEATHING WITH 8d AT 6" oc AT ALL FRAMED PANEL EDGES AND AT 12" oc FIELD.
4. ALL POSTS SHALL BEAR FULLY ON BEAMS OR POSTS BELOW AND SHALL HAVE FULL CONTINUOUS BEARING THROUGH FLOORS TO FOUNDATION.
5. REFER TO GENERAL STRUCTURAL NOTES FOR ADDITIONAL REQUIREMENTS.

Legend

- SPAN & DIRECTION OF FRAMING
- EXTENTS OF FRAMING
- HEADER/BEAM PER PLAN
- STEEL PIPE COLUMN PER PLAN

Roof Framing Plan

Scale: 1/4" = 1'-0"



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DESIGNED BY: LSD  
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CHECKED BY: BDM  
APPROVED BY: DJS  
SCALE: 1/4" = 1'-0"  
DATE: August 2020

MEADOWDALE BEACH PARK  
AND ESTUARY DESIGN  
PFN 19-103913LDA

TOILET ENCLOSURE STRUCTURAL PLANS

S2.2

SHEET # 58 OF 81

ONE INCH  
AT FULL SIZE, IF NOT ONE  
INCH SCALE ACCORDINGLY



Plan Notes

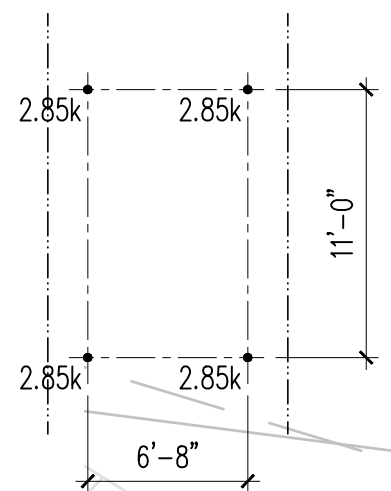
- DO NOT SCALE DRAWINGS. REFER TO SHEET CV-1 FOR HORIZONTAL LAYOUT INFORMATION.
- EXTERIOR SLABS ON GRADE SHALL BE 6" MINIMUM THICKNESS. REINFORCE WITH #4 AT 10" O.C. EACH WAY BOTTOM. BELOW SLAB PROVIDE 12" MINIMUM FREE DRAINING GRAVEL OVER FIRM NATIVE SOILS OR STRUCTURAL FILL. SEE 8/S3.2 FOR 'TYPICAL SLAB JOINTS' DETAIL.
- 1 1/4" x 3/8" STAINLESS STEEL GRATING MCNICHOLS GCM-1-125-A OR EQUIVALENT PER BOARDWALK SPECIFICATION 06 11 10. ATTACH TO JOISTS PER MANUFACTURER'S RECOMMENDATIONS.
- REFER TO GENERAL STRUCTURAL NOTES FOR ADDITIONAL REQUIREMENTS.

Legend

- RETAINING WALL
- SPAN DIRECTION
- EXTENTS
- HEADER/BEAM PER PLAN

Load Map at Boardwalk

- BOARDWALK HAS BEEN DESIGNED TO ACCOMMODATE A MAINTENANCE PICKUP TRUCK PER THE LIVE LOAD NOTED BELOW. POINT LOADS DO NOT OCCUR SIMULTANEOUSLY WITH OTHER LIVE LOADING.



Pedestrian Bridge Abutment and Boardwalk - Above Grade Plan

Scale: 1/8" = 1'-0"



Foundation Plan Notes

- DO NOT SCALE DRAWINGS. REFER TO SHEET CV-1 FOR HORIZONTAL LAYOUT INFORMATION.
- THE BOTTOM OF ALL EXTERIOR FOOTINGS SHALL BE 2'-0" MINIMUM BELOW EXTERIOR GRADE. BOTTOM OF FOOTINGS TO ALIGN WITH BOTTOM OF ADJACENT FOOTINGS.
- DIAMOND PIER FOUNDATION PER MANUFACTURER. EACH DIAMOND PIER FOUNDATION SHALL SUPPORT THE MINIMUM ALLOWABLE LOADS:
  - DEAD LOAD = 1350#
  - LIVE LOAD = 2850#
  - SNOW LOAD = 1250#
  - SEISMIC = +/- 950# (COMPRESSION / TENSION); = +/- 1350# (SHEAR)
- REFER TO GENERAL STRUCTURAL NOTES FOR ADDITIONAL REQUIREMENTS.

Legend

- STEM WALL & FOOTING
- DIAMOND PIER FOUNDATION

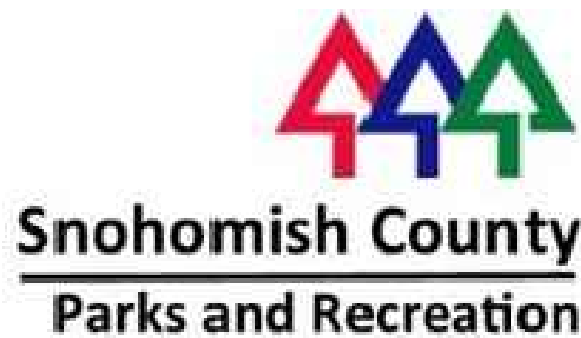
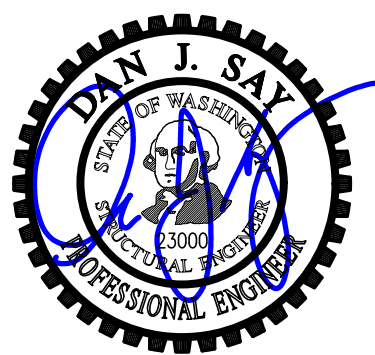
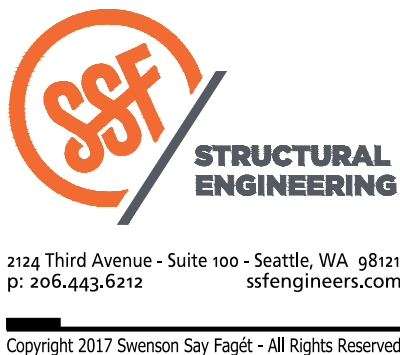
Pedestrian Bridge Abutment and Boardwalk - Foundation Plan

Scale: 1/8" = 1'-0"



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DRAWN BY: NHD  
CHECKED BY: BDM  
APPROVED BY: DJS  
SCALE: 1/8"=1'-0"  
DATE: August 2020

MEADOWDALE BEACH PARK  
AND ESTUARY DESIGN  
PFN 19-103913LDA

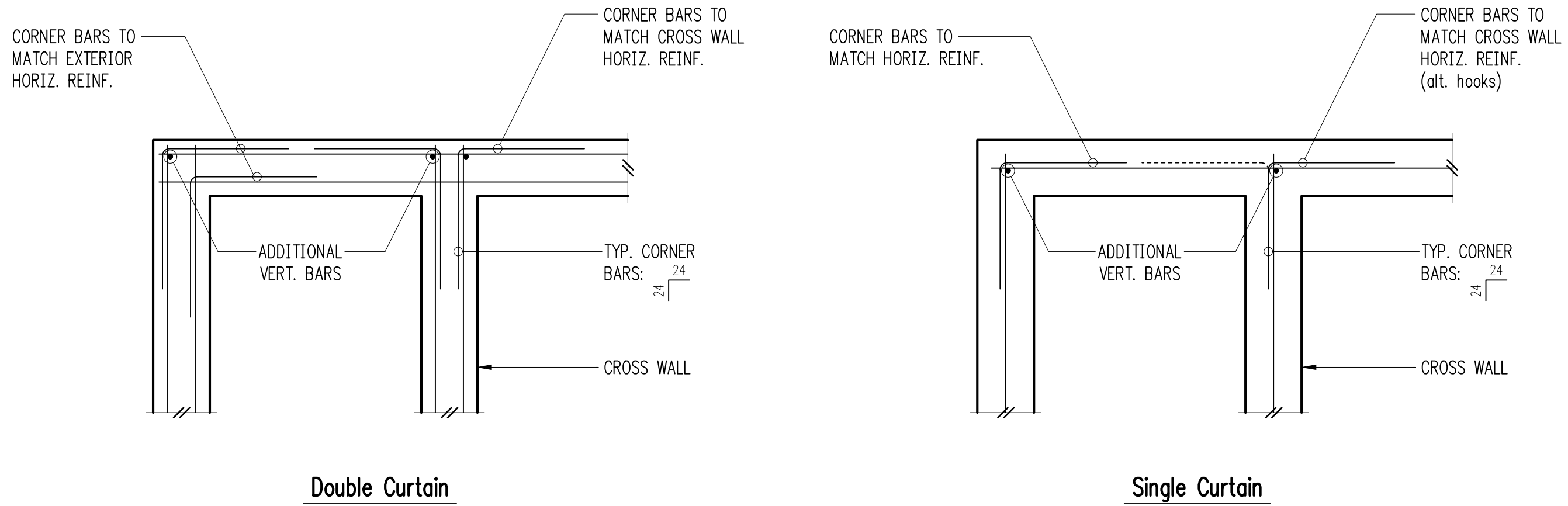
PEDESTRIAN BRIDGE ABUTMENT AND  
BOARDWALK PLANS

S2.3

SHEET # 59 OF 81



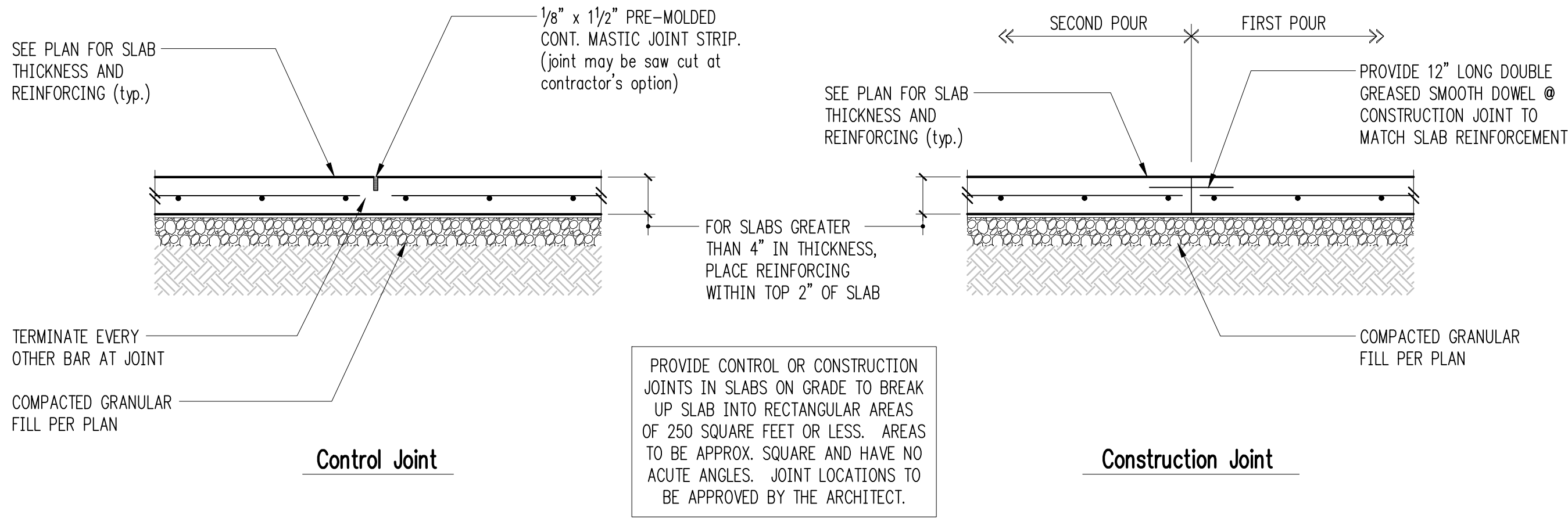
SECTION 5, TOWNSHIP 27 N., RANGE 4 E



Double Curtain

Single Curtain

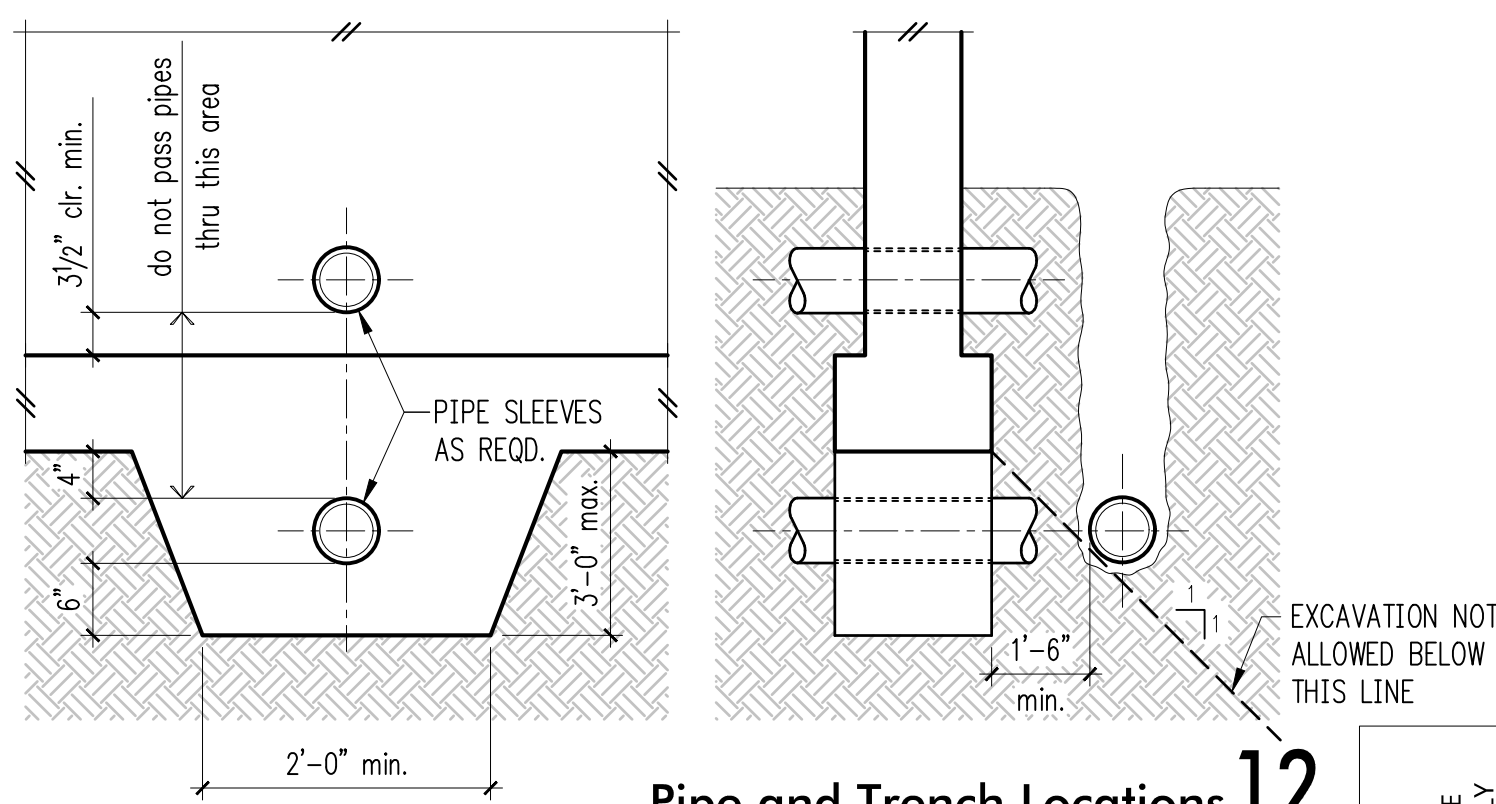
Typical Corner Bars at Concrete Walls and Footings



Control Joint

Construction Joint

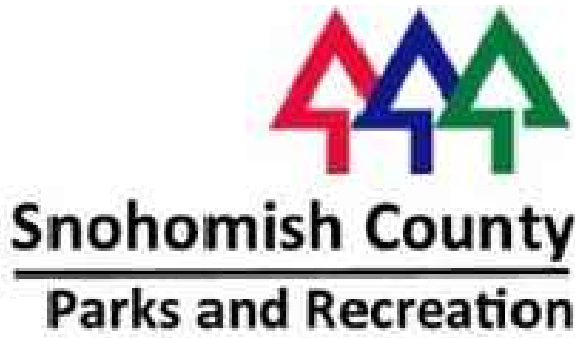
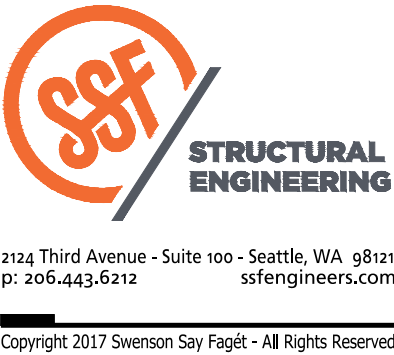
Typical Slab Joints



Pipe and Trench Locations

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CHECKED BY: BDM  
APPROVED BY: DJS  
SCALE: 3/4"=1'-0"  
DATE: August 2020

MEADOWDALE BEACH PARK  
AND ESTUARY DESIGN  
PFN 19-103913LDA

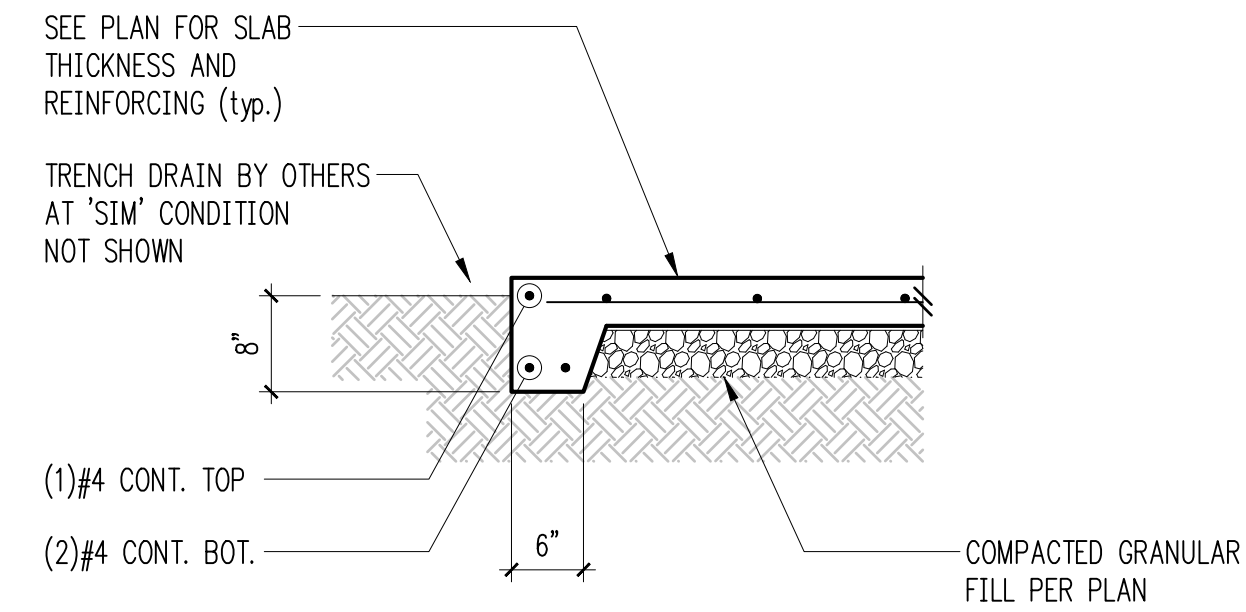
TOILET ENCLOSURE STRUCTURAL  
TYPICAL CONCRETE DETAILS

S3.1

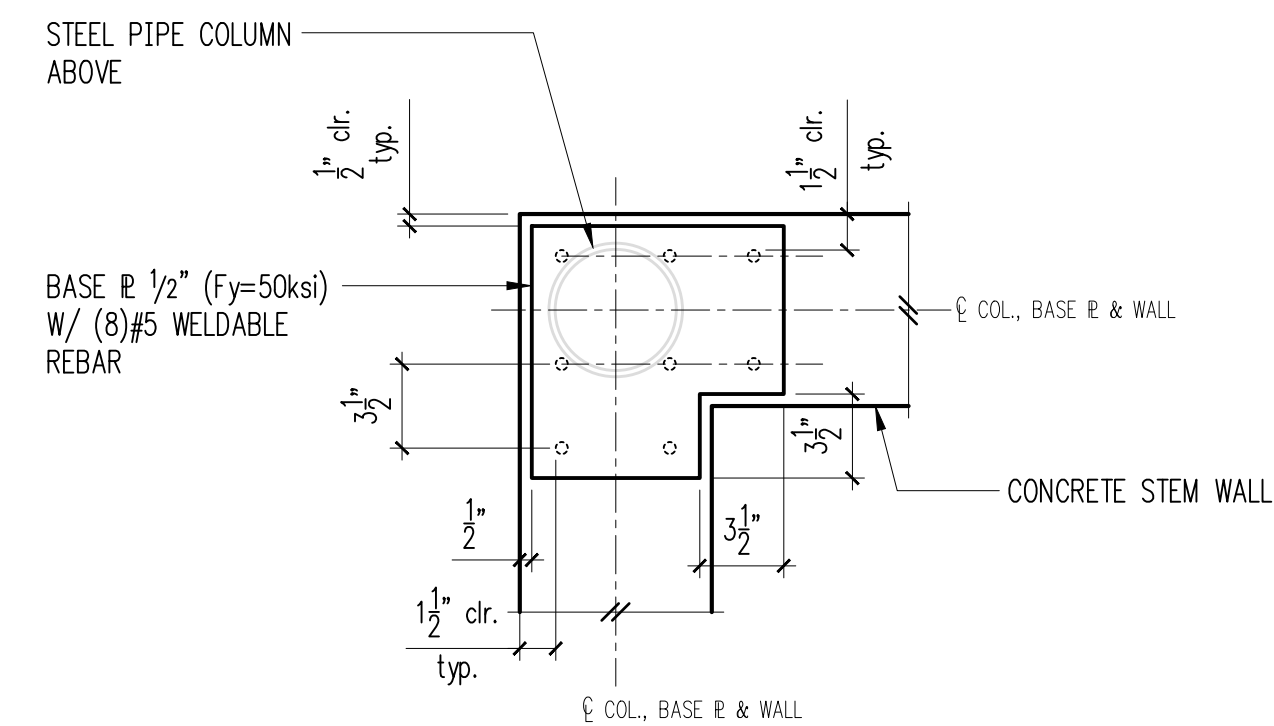
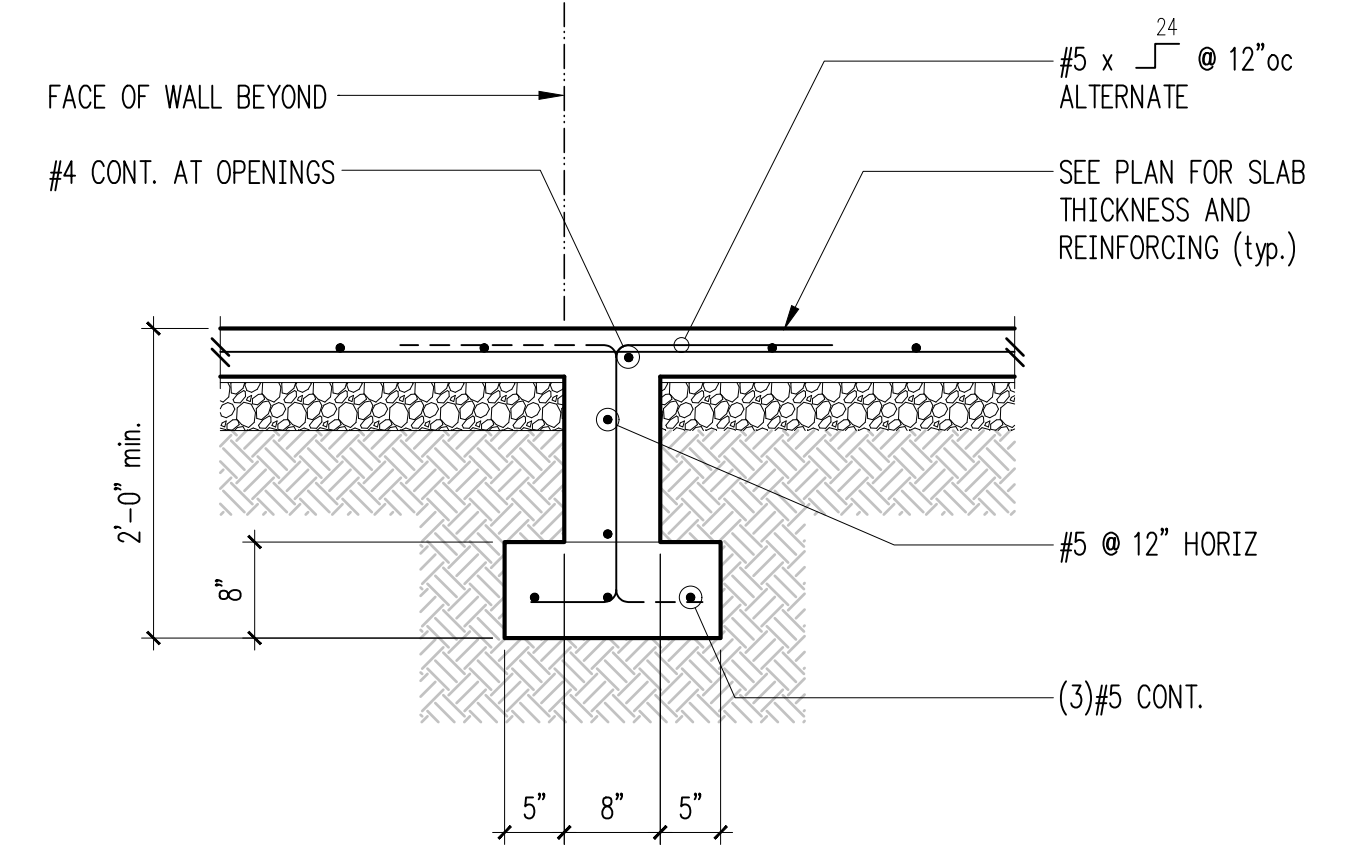
SHEET # 60 OF 81



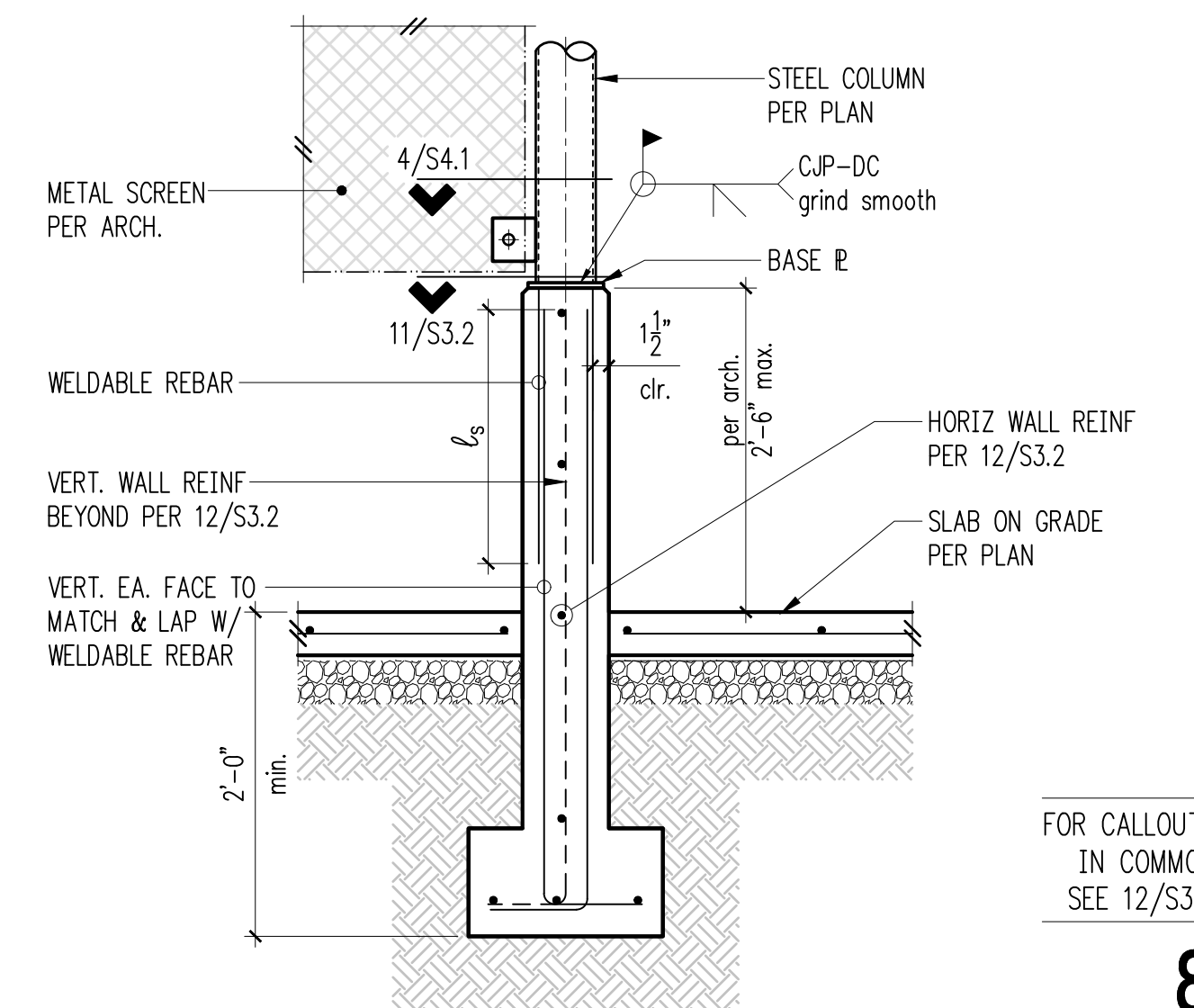
## SECTION 5, TOWNSHIP 27 N., RANGE 4 E



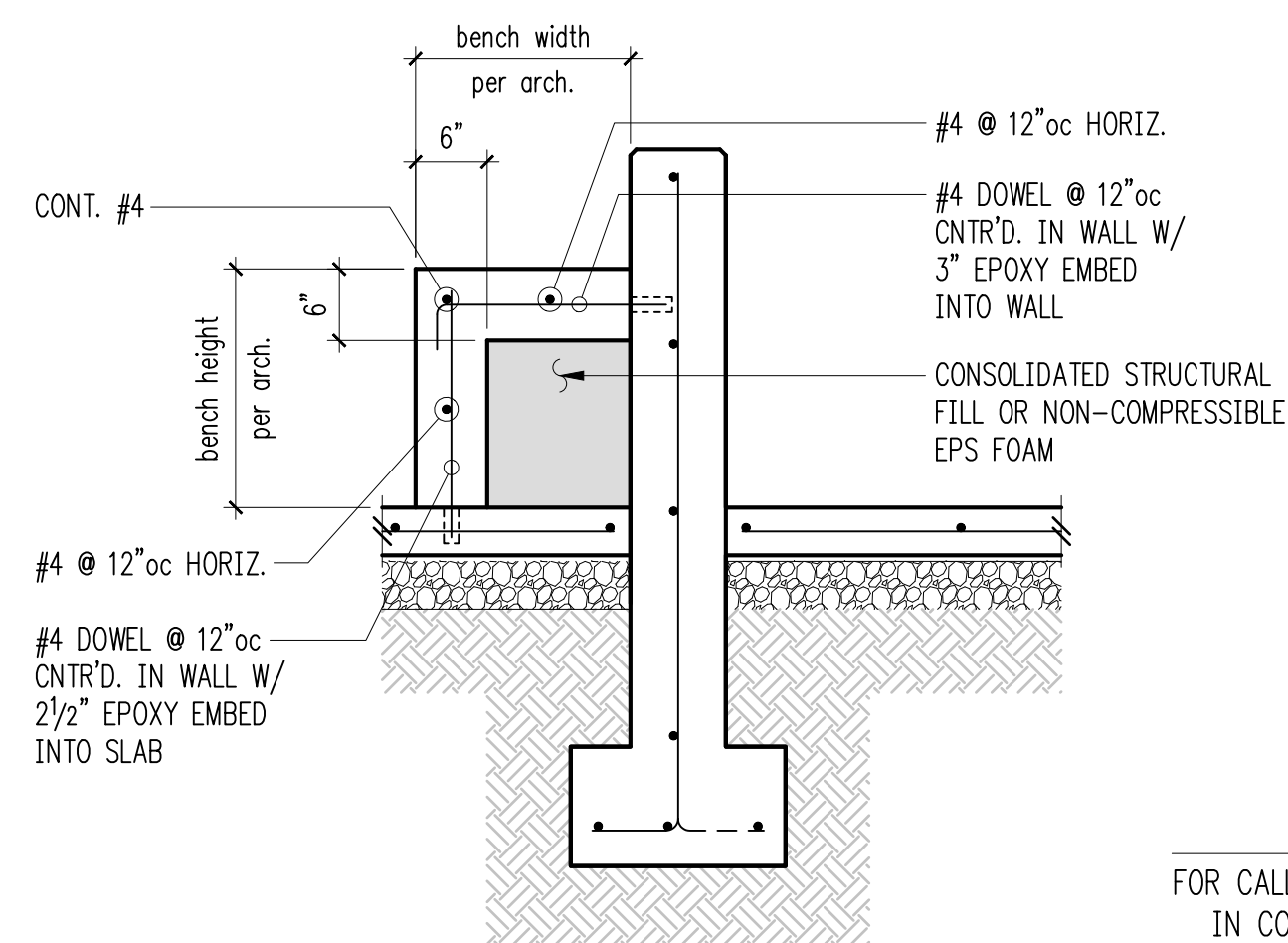
### Typical Slab Edge 3



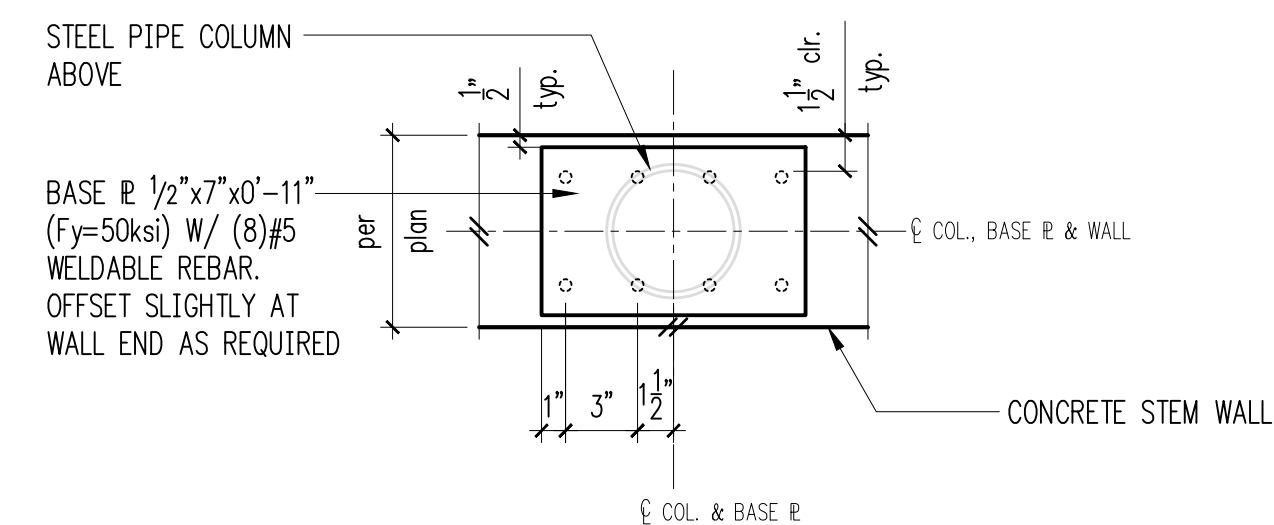
Base  $\mathbb{R}$  at Corner



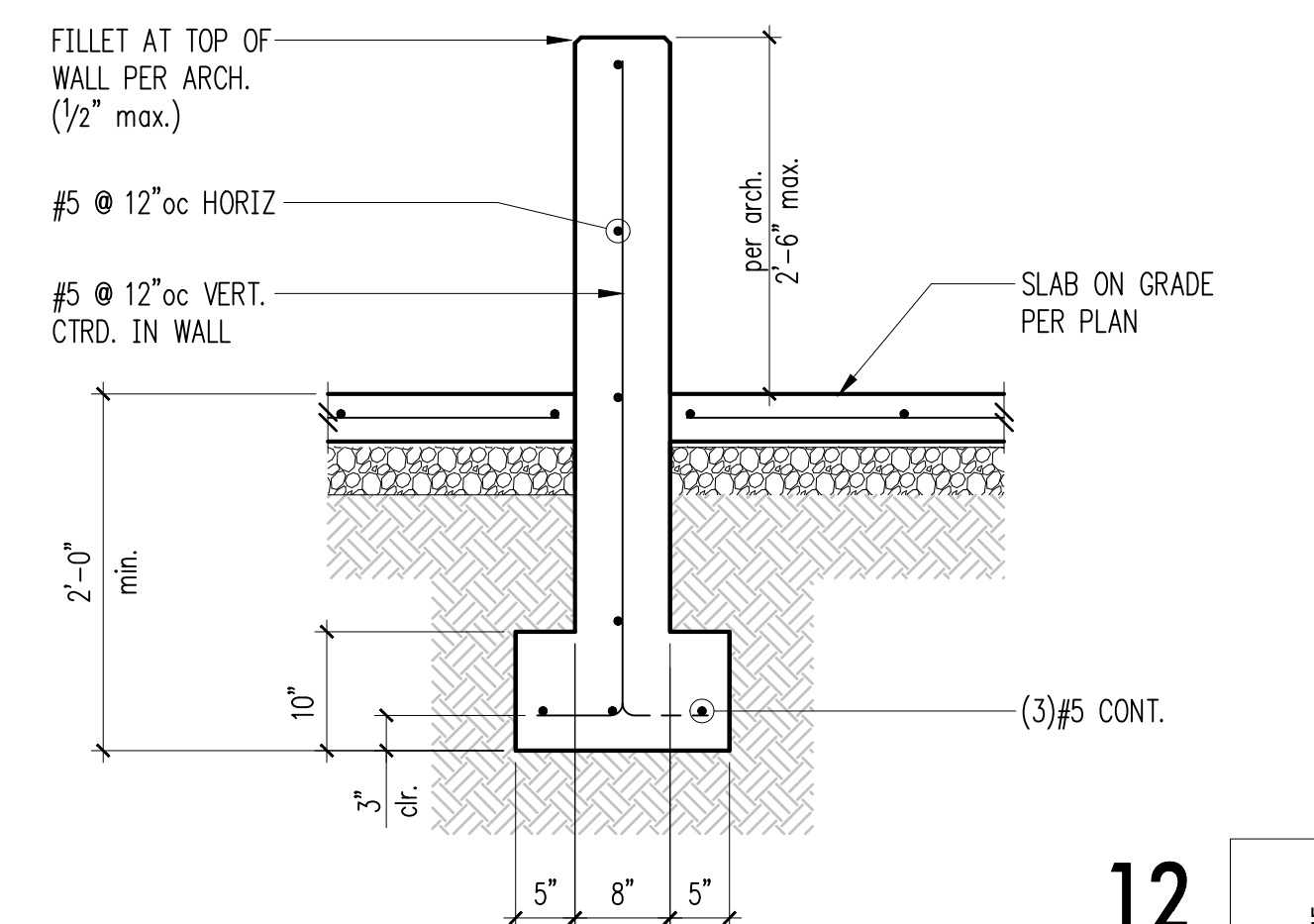
OR CALLOUTS  
IN COMMON  
SEE 12/S3.2



FOR CALLOUTS  
IN COMMON  
SEE 12/S3.2



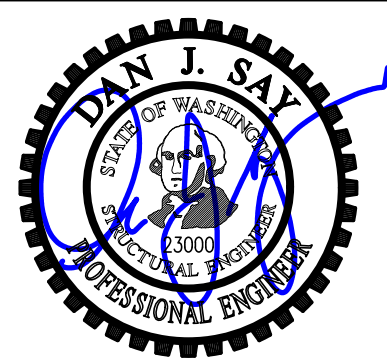
Base @ Cont. Wall  
& Wall End



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AT FULL SIZE, IF NOT ONE  
INCH SCALE ACCORDINGLY

**100% CONSTRUCTION DRAWINGS / BID SET**

[illegible]

DESIGNED BY: LSD

DRAWN BY: NHD

CHECKED BY: BDM

APPROVED BY: DJS

SCALE: 3/4" = 1'-0" U.N.O.

DATE: AUGUST 2008

**MEADOWDALE BEACH PARK  
AND ESTUARY DESIGN**  
PFN 19-103913LDA

## TOILET ENCLOSURE STRUCTURAL CONCRETE DETAILS

### S3.2

HEET # **61** OF **81**



SECTION 5, TOWNSHIP 27 N., RANGE 4 E

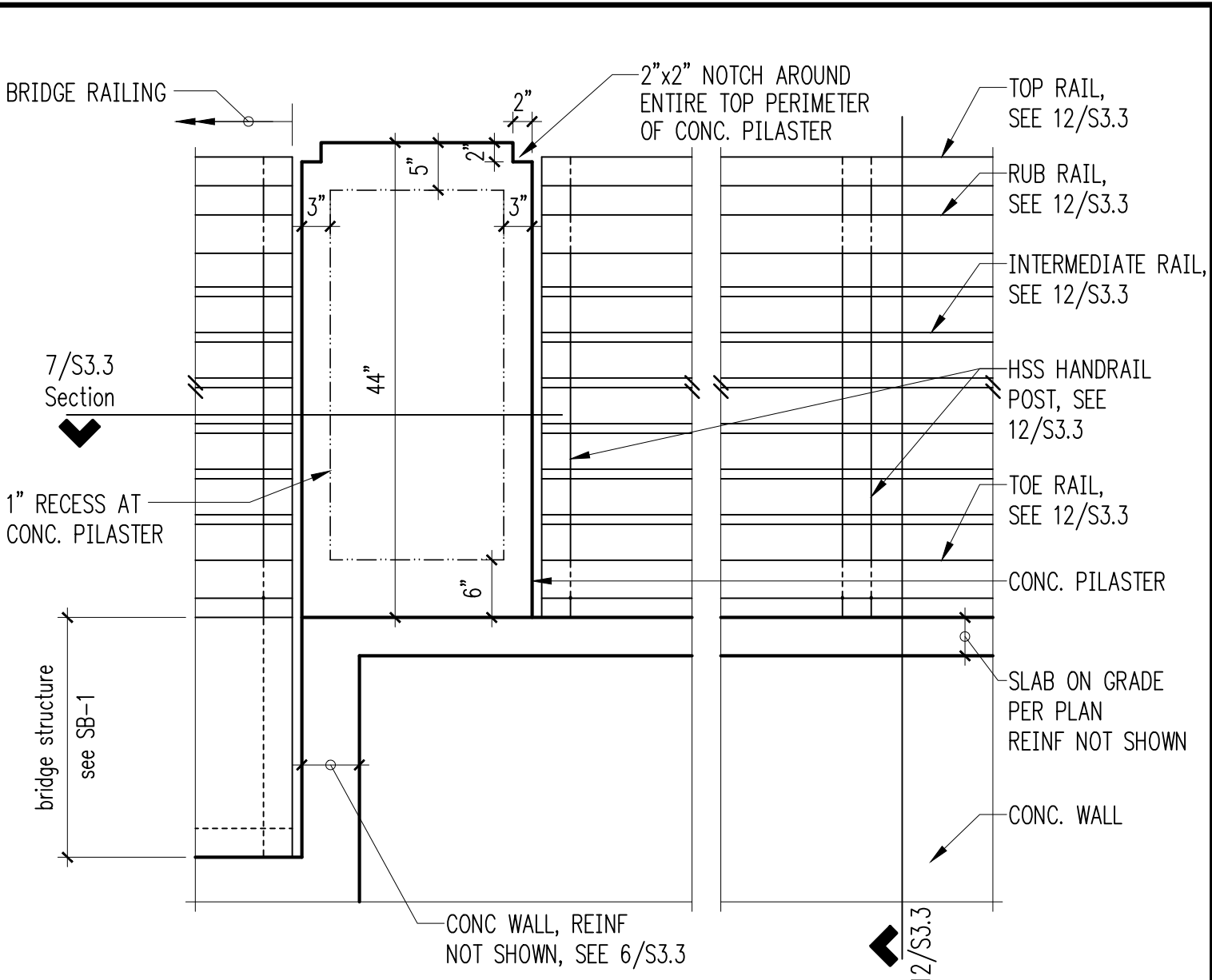
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2

5

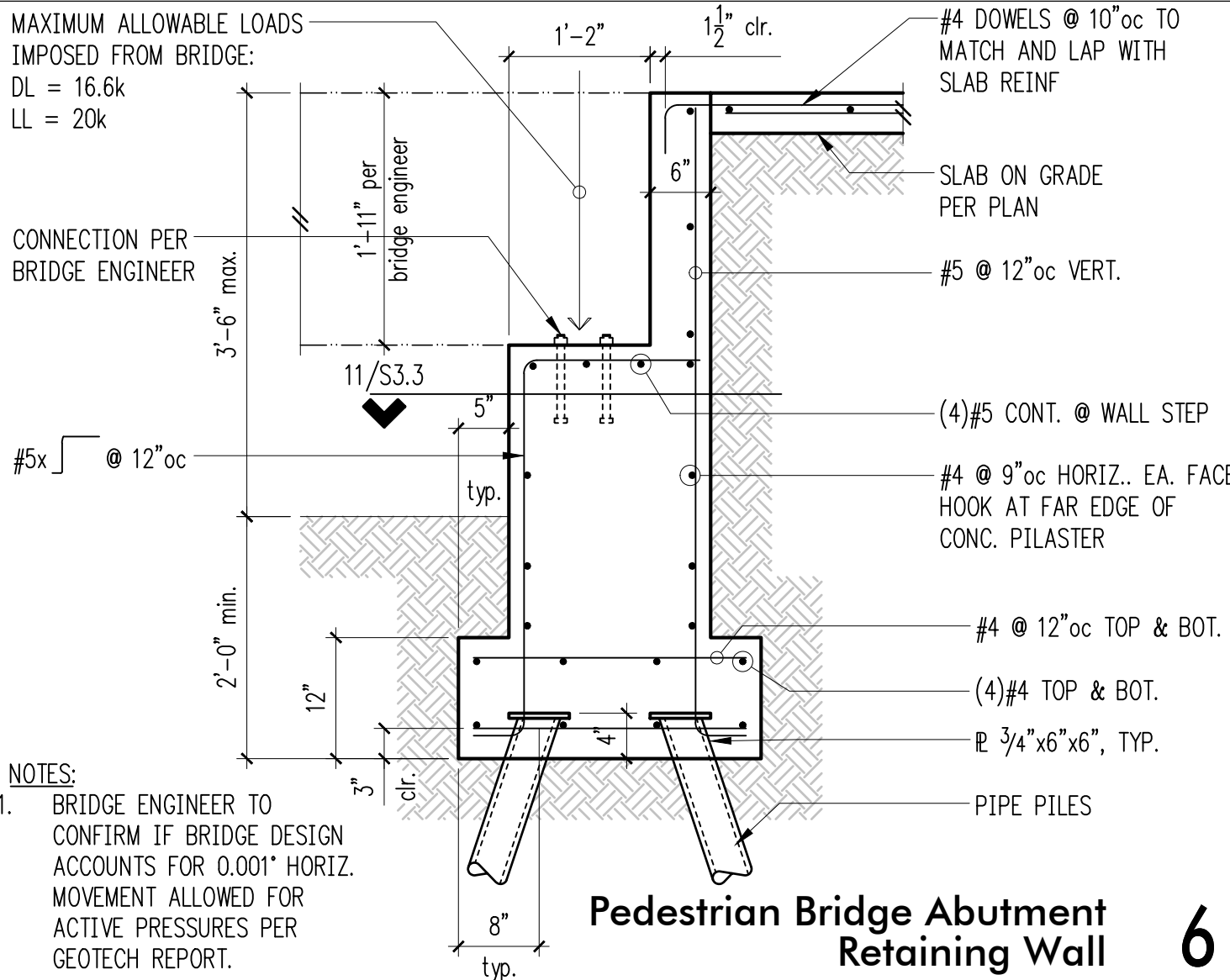
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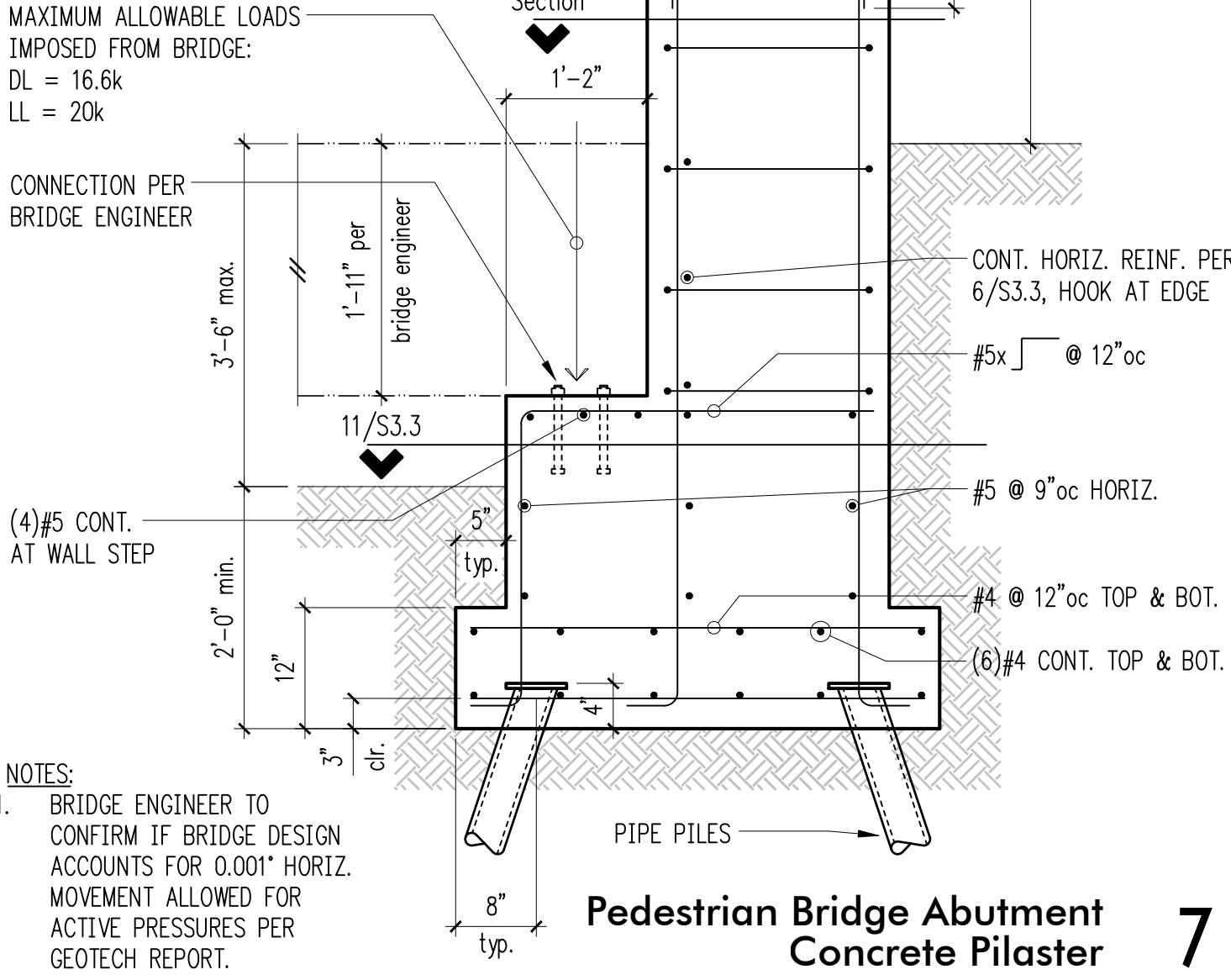


Pedestrian Bridge Abutment Concrete Pilaster Elevation

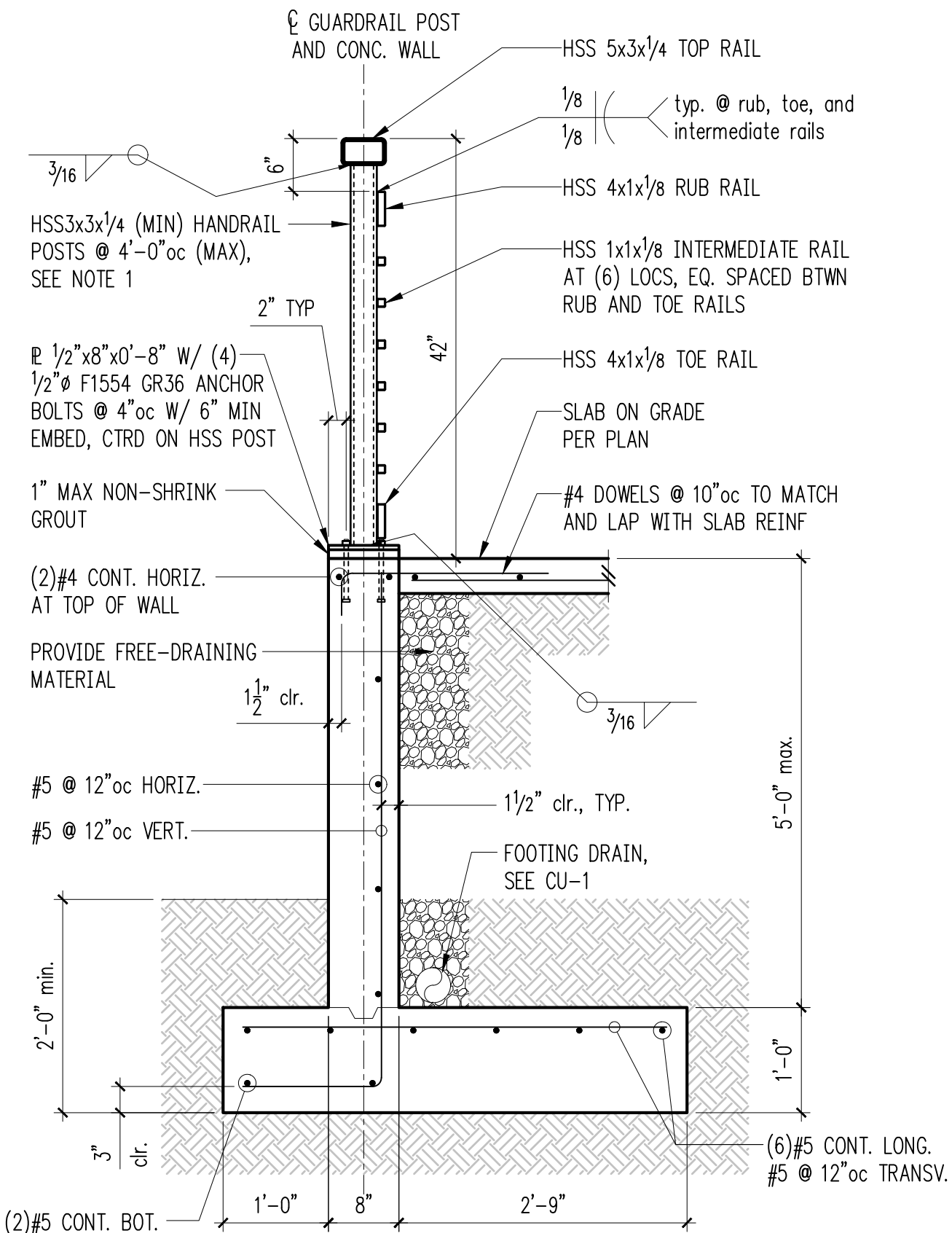
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Pedestrian Bridge Abutment Retaining Wall

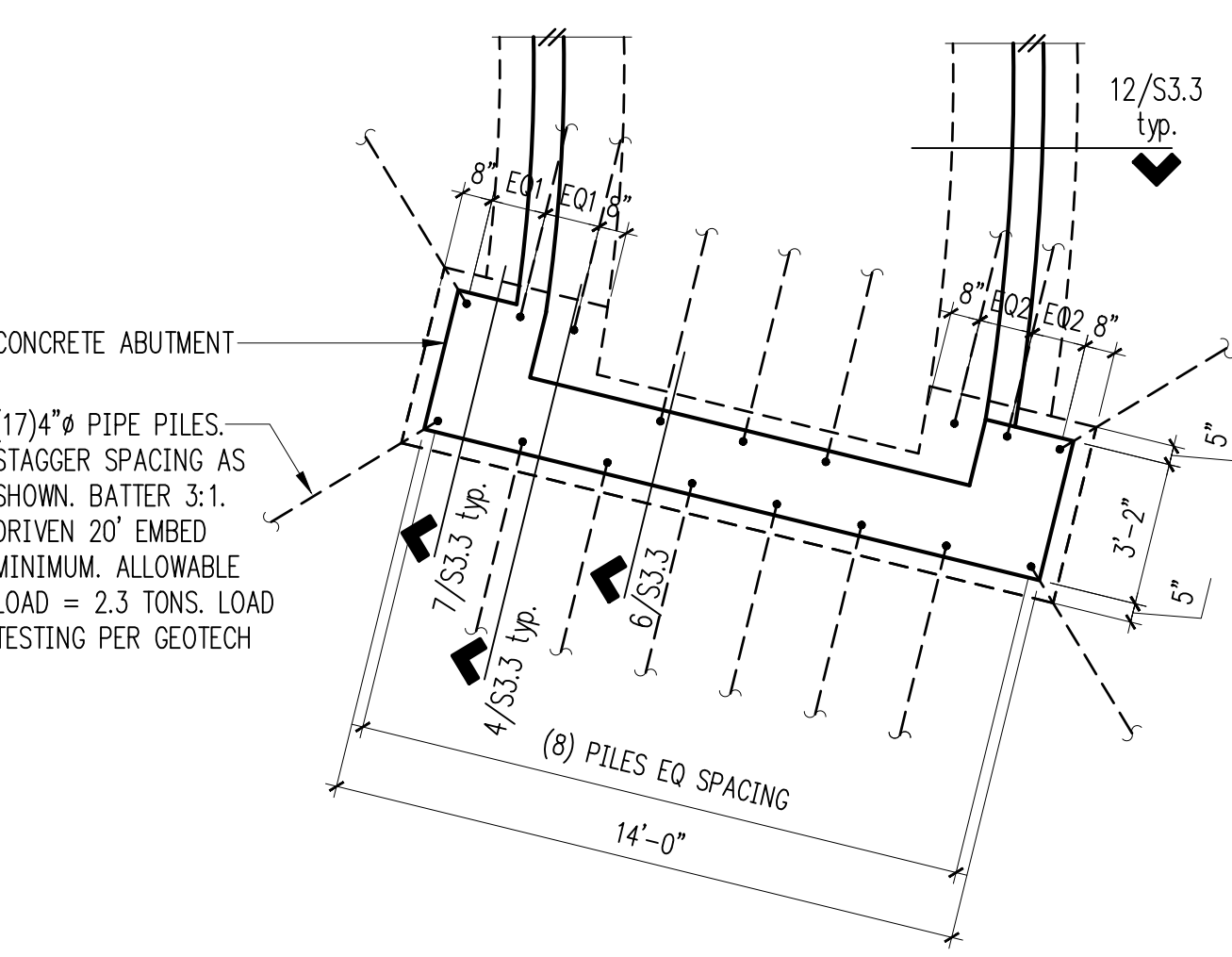


Pedestrian Bridge Abutment Concrete Pilaster



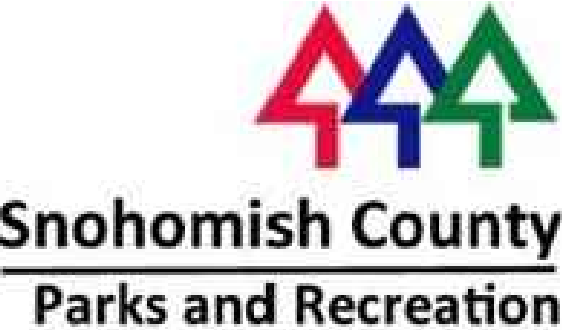
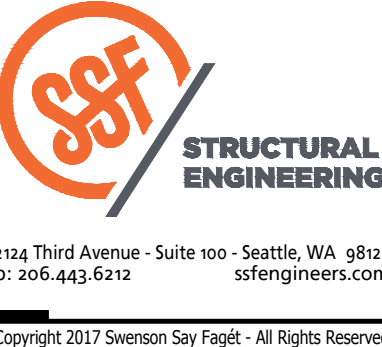
Pedestrian Bridge Wing Walls at North and South Abutments

12



Pedestrian Bridge Abutment Foundation Partial Plan

11



REVISIONS					DESCRIPTION
REV	DATE	BY	APP'D		

DESIGNED BY: LSD  
DRAWN BY: NHD  
CHECKED BY: BDM  
APPROVED BY: DIS  
SCALE: 3/4" = 1'-0" U.N.O.  
DATE: August 2020

MEADOWDALE BEACH PARK  
AND ESTUARY DESIGN  
PFN 19-103913LDA

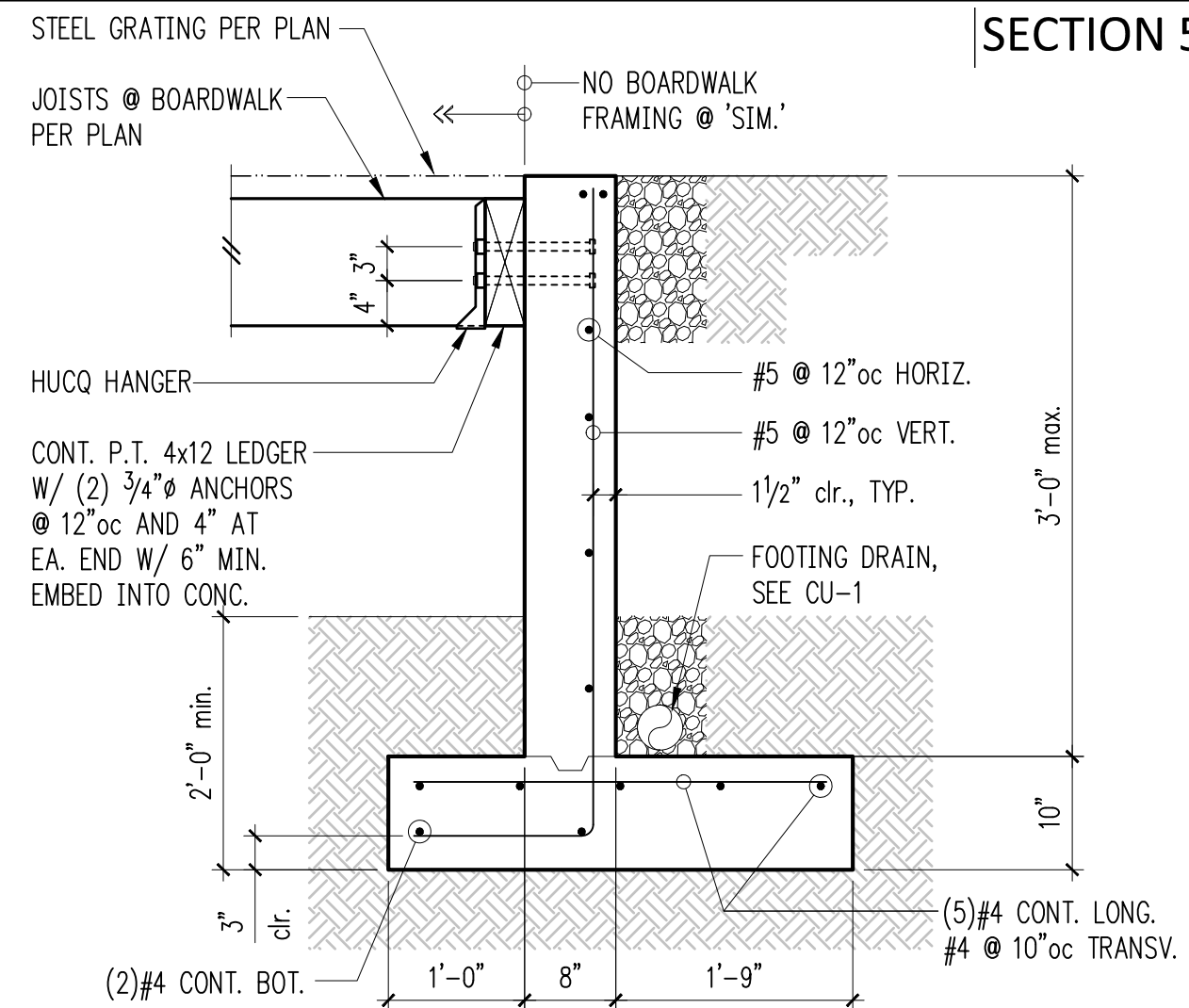
PEDESTRIAN BRIDGE CONCRETE ABUTMENT DETAILS

S3.3

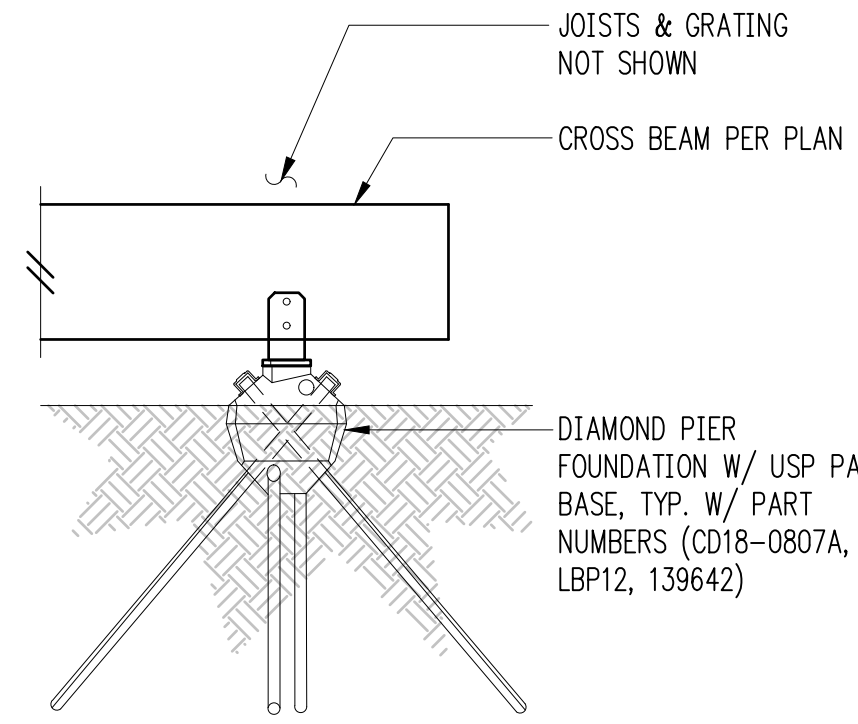
SHEET # 62 OF 81



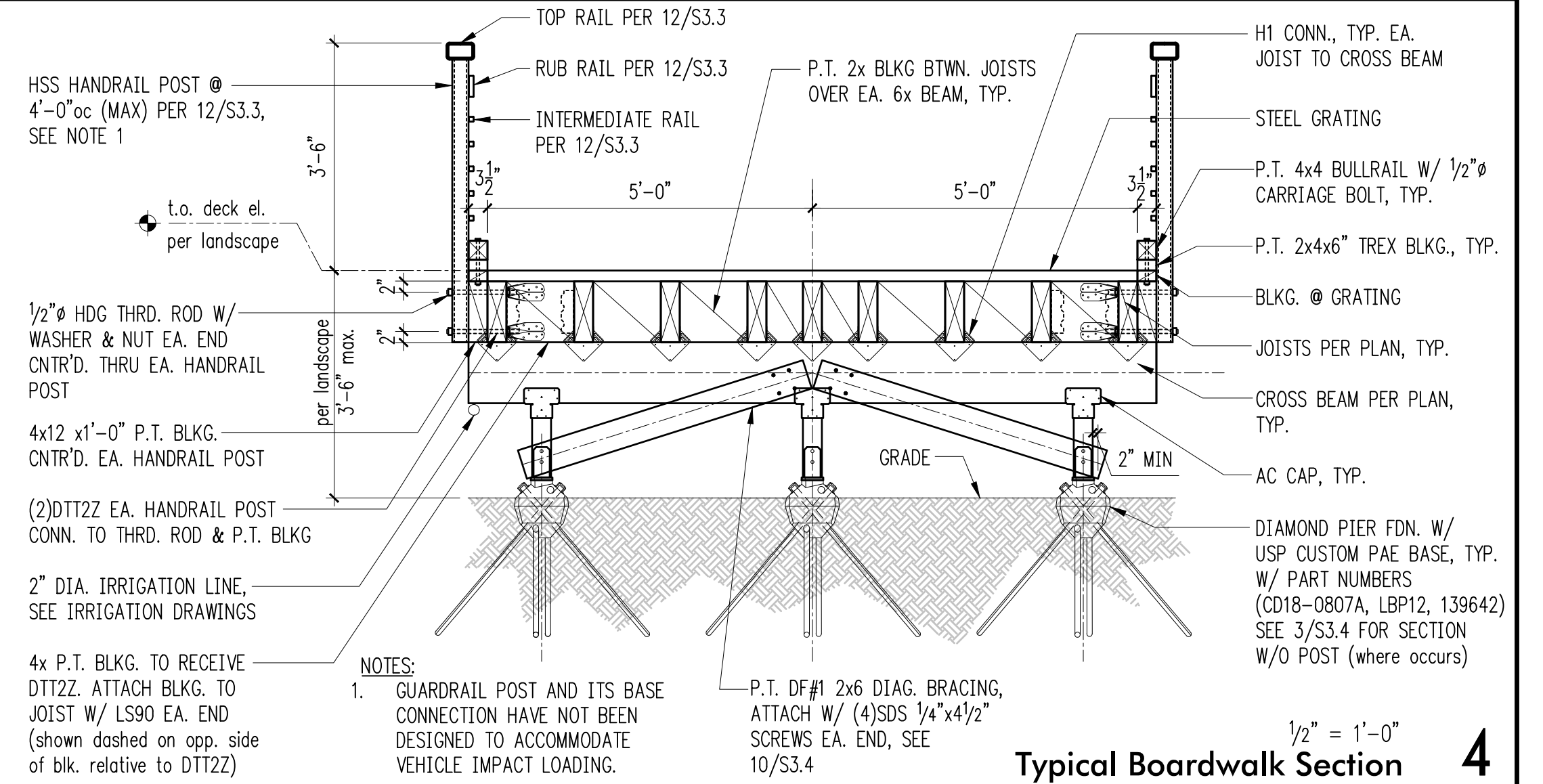
SECTION 5, TOWNSHIP 27 N., RANGE 4 E



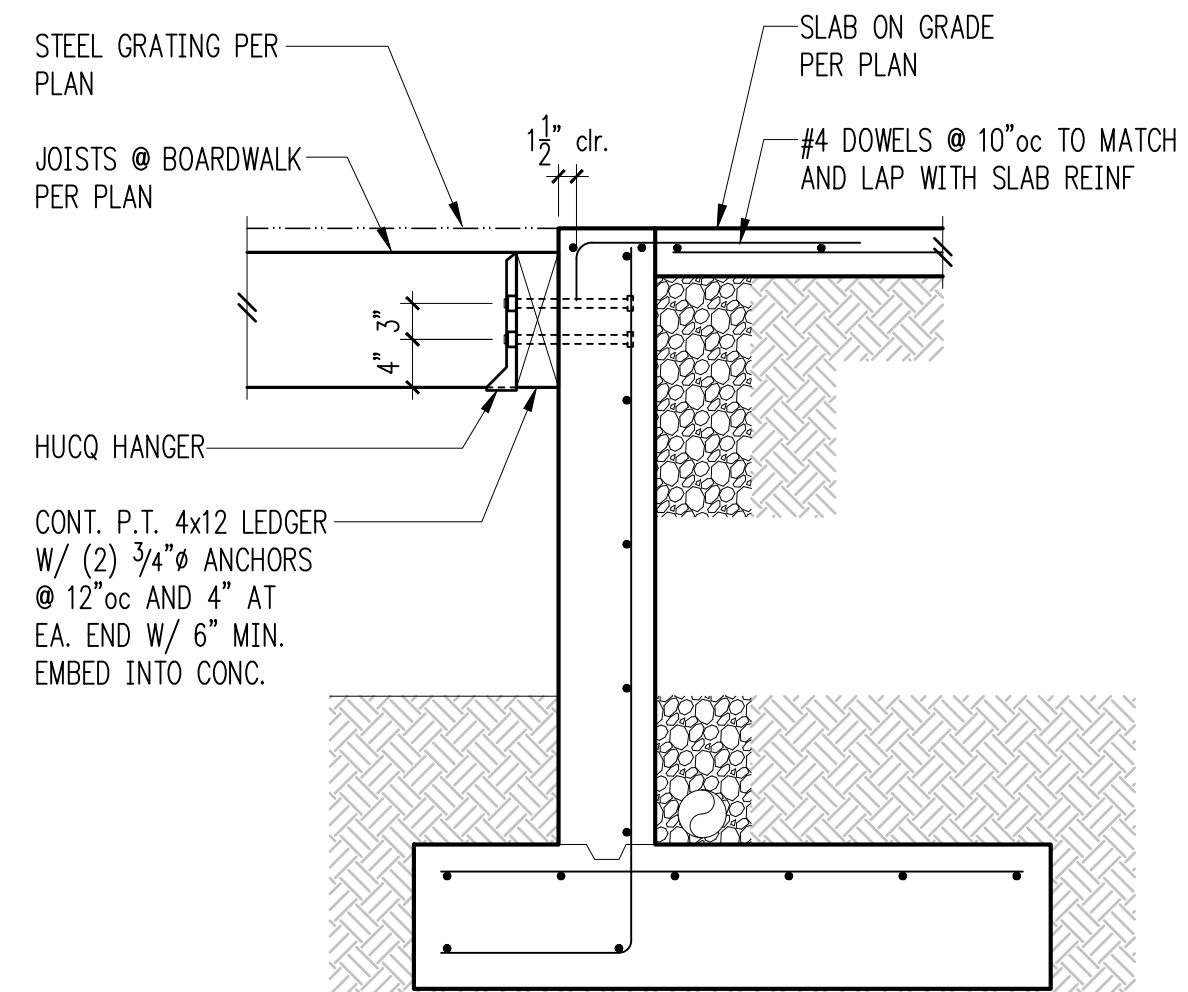
### Retaining Wall at South End of Boardwalk



### Typical Boardwalk Section Without Post

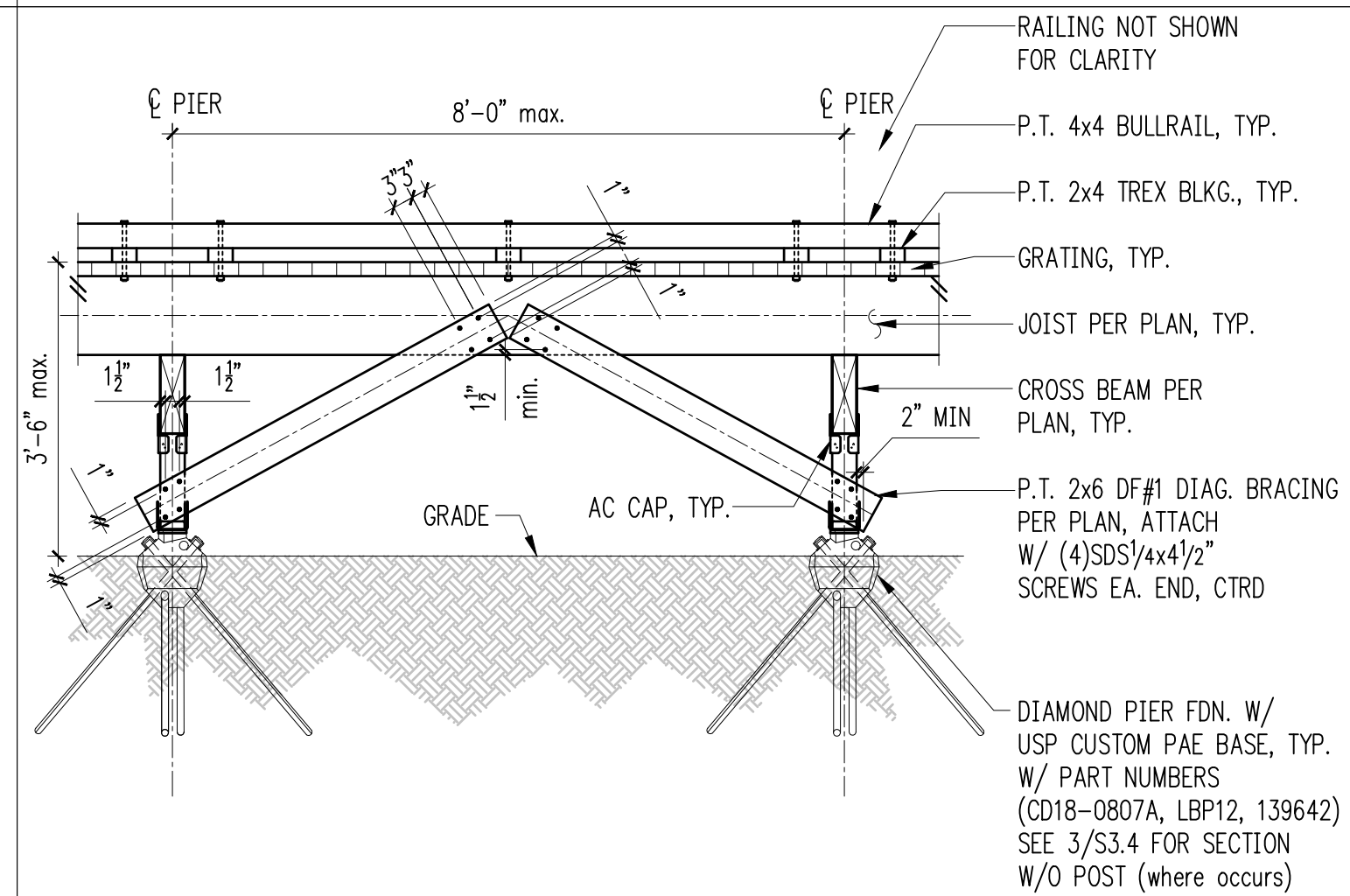


### Typical Boardwalk Section



### Retaining Wall at North End of Boardwalk

FOR CALLOUTS  
IN COMMON  
SEE 12/S3.3

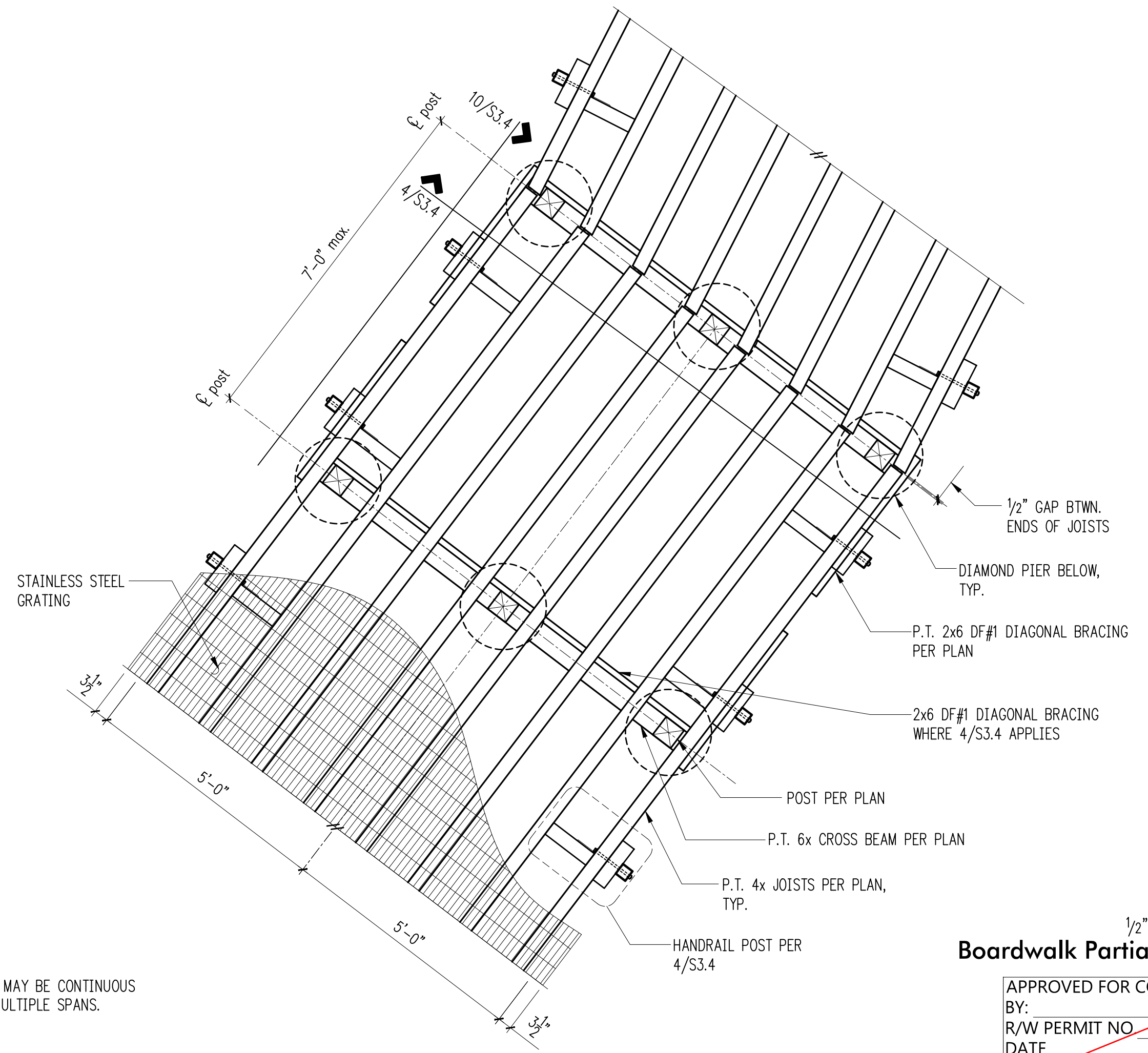


1/2" = 1'-0"

Typical Boardwalk Exterior Elevation

NOTES:

1. JOISTS MAY BE CONTINUOUS OVER MULTIPLE SPANS.

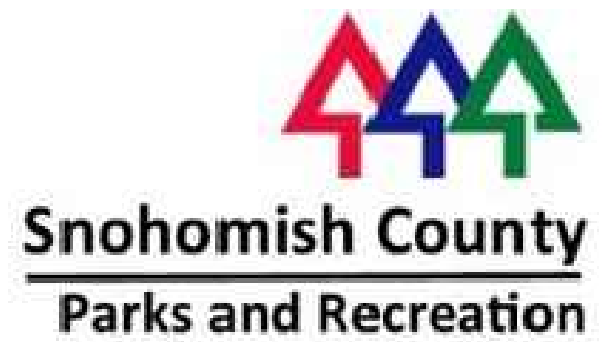
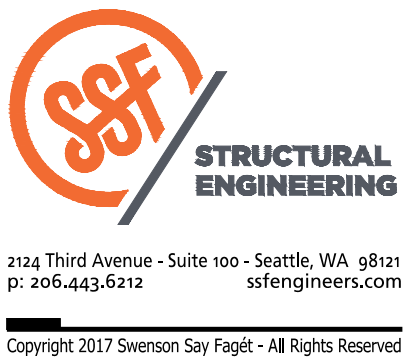


$\frac{1}{2}'' = 1'-0''$   
Boardwalk Partial Plan **12**

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BY: \_\_\_\_\_  
R/W PERMIT NO \_\_\_\_\_  
DATE \_\_\_\_\_

**PFN: 19-103913LDA**

**100% CONSTRUCTION DRAWINGS / BID SET**

[illegible]

DESIGNED BY: LSD  
DRAWN BY: NHD  
CHECKED BY: BDM  
APPROVED BY: DJS  
SCALE: 3/4" = 1'-0" U.N.O.  
DATE: August 2020

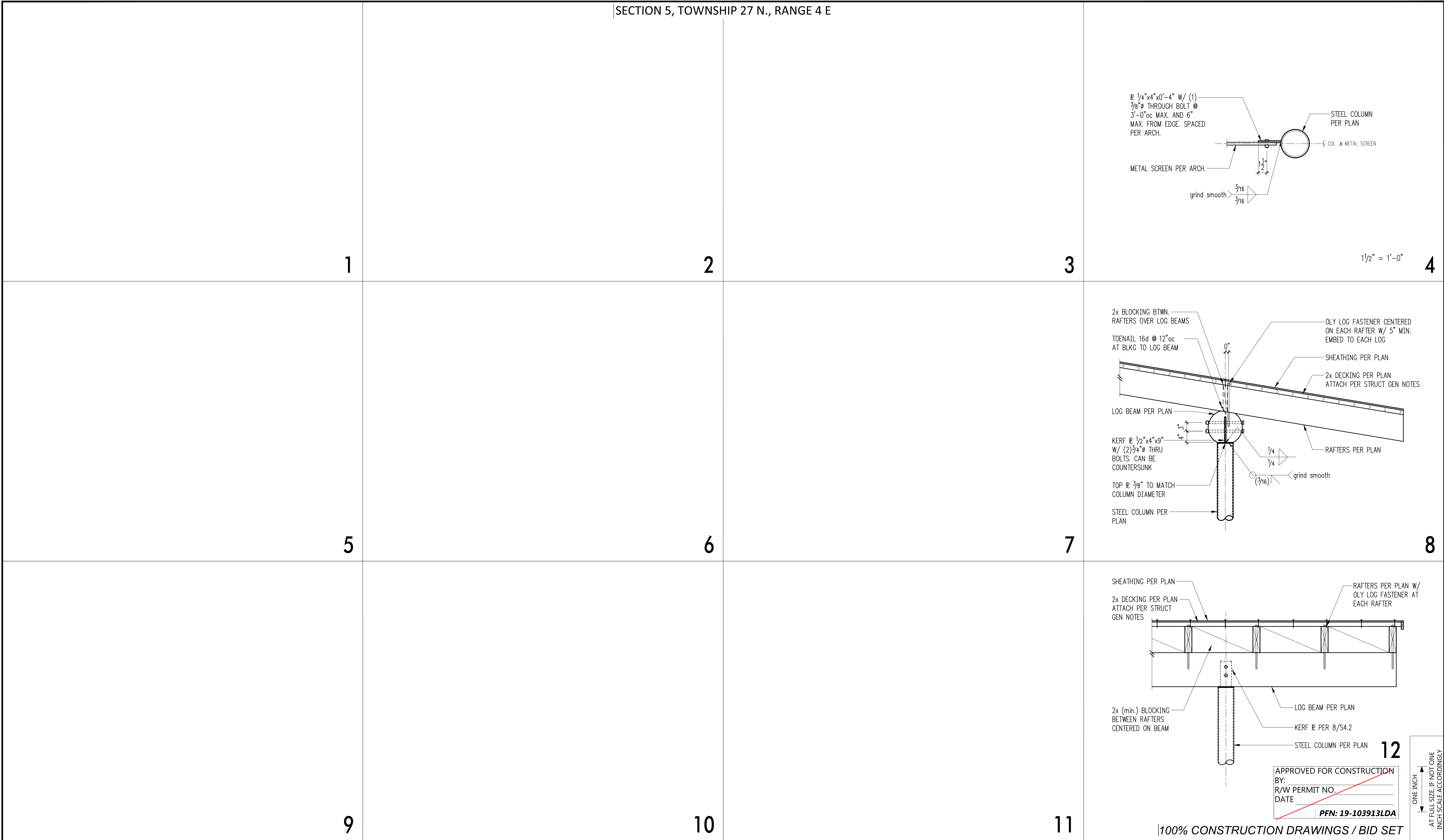
**MEADOWDALE BEACH PARK  
AND ESTUARY DESIGN**  
PFN 19-103913LDA

## BOARDWALK DETAILS

### S3.4

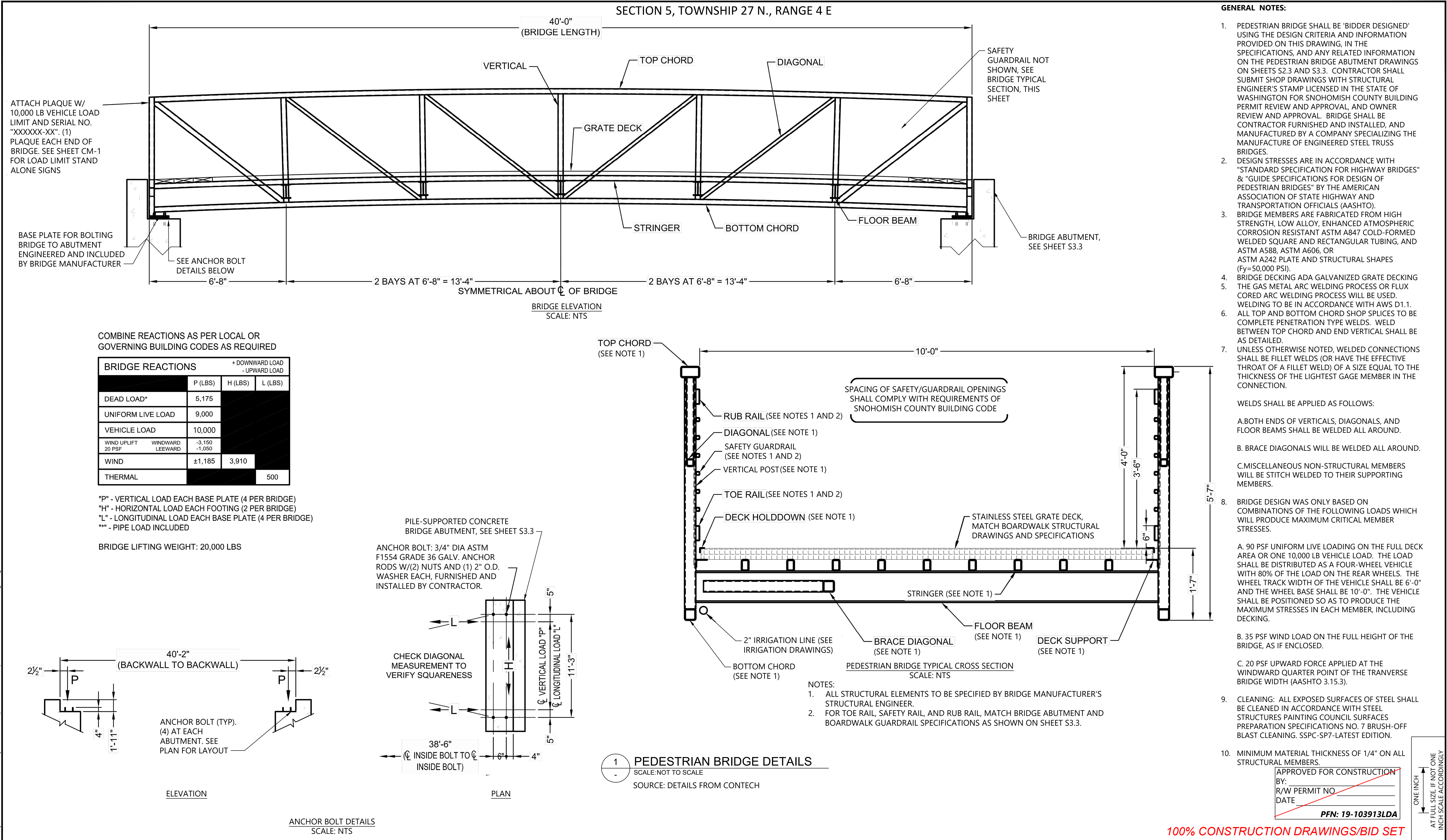
SHEET # **63** OF **81**



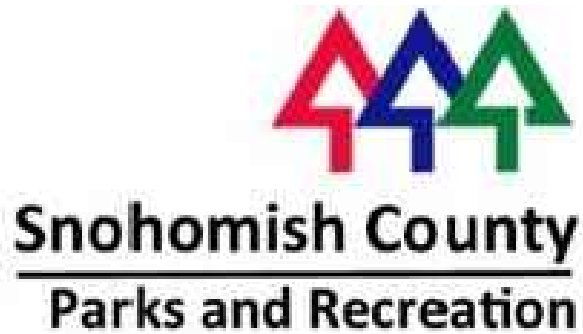




k:\Projects\0723-snohomish-county\meadowdale-park\construction-plans\0723-PL-Pedestrian Bridge.dwg 65 SB-1  
Sep 15, 2020 9:06am chiewett



100% CONSTRUCTION DRAWINGS/BID SET



REVISIONS				
REV	DATE	BY	APP'D	DESCRIPTION

DESIGNED BY: PH  
DRAWN BY: CH/TG  
CHECKED BY: DR  
APPROVED BY: PH  
SCALE: AS NOTED  
DATE: SEPTEMBER 2020

MEADOWDALE BEACH PARK  
AND ESTUARY DESIGN  
PFN 19-103913LDA

PEDESTRIAN BRIDGE DETAIL

SB-1

SHEET # 65 OF 81



**GENERAL NOTES:**

- 
- FINAL FINISHED GRADE. SEE CIVIL FOR VARIOUS SURFACE TYPES AND FINISH REQUIREMENTS.
- 6"
- RED "TERRA TAPE" WARNING TAPE (ELEC. BURIED BELOW) WITH TRACE WIRE.
- 24"
- 3"
- 3"
- 3"
- 3"
- 3"
- 3"
- 3"
- 3"
- CONDUIT(S)
- SAND BEDDING: CLEAN, FREE FLOWING, COURSE GRADE SAND, AS DEFINED BY ASTM D 2487. COMPACT TO 95%
- NATIVE BACKFILL, CLEANED OF ORGANIC MATERIAL AND COBBLES LARGER THAN 3" IS ACCEPTABLE. COMPACT TO 95%

**NOTE:**  
NEW CONDUIT FROM PANEL P TO NEW LIGHT POLE LOCATION SHALL BE PARALLELED WITH WATER LINE. SEE UTILITY PLAN DRAWINGS CU-1 AND CU-2 FOR WATER LINE ROUTING. PROVIDE MINIMUM 12" HORIZONTAL SEPARATION OF UTILITY LINES.



1. CONTRACTOR SHALL FIELD VERIFY AND REMOVE EXISTING(E) CONCRETE, DIRECT BURIED, LIGHT POLE AT THIS LOCATION, SEE SHEET D-1. DISCONNECT (E)SWITCH AT RANGERS RESIDENCE AND REMOVE WIRE FROM (E)PANEL R TO (E)SWITCH IN INTERIOR OF HOUSE. (E)CONDUIT(2") ON THE SOUTH SIDE OF THE (E)WALKWAY FROM RESIDENCE TO (E)PICNIC SHELTER AND (E)LIGHT POLE MAY BE ABANDONED. (E)WIRE AND HANDHOLES SHALL BE REMOVED.
2. STAKE LOCATIONS OF NEW LIGHT POLE, TRENCH ROUTE AND OBTAIN OWNER APPROVAL PRIOR TO INSTALLATION. PROVIDE 12" HORIZONTAL SEPARATION BETWEEN POWER AND OTHER UTILITIES IN SHARED TRENCHES. PROVIDE NEW 1"C-(3)#8 CU XHHW-2 & (1)#10 CU GRD AND (1)1"C-PULL STRING/TRACER TAPE FOR FUTURE CONNECTIONS BETWEEN PANEL P AND NEW LIGHT POLE LOCATION. SEE PARTIAL PLAN SHEET E-3, E-5 AND DETAILS A AND B THIS SHEET.
3. STAKE LOCATIONS OF NEW UNDERGROUND POWER CONDUITS FROM PANEL P TO NEW LIGHT POLE AND OBTAIN OWNER APPROVAL PRIOR TO INSTALLATION.
4. STAKE HANDHOLE LOCATIONS AND OBTAIN OWNER APPROVAL PRIOR TO INSTALLATION. PROVIDE A WSDOT J-11A PULL BOX AT THIS LOCATION.
5. PROVIDE 3/4"C-(2)#10 CU & (1)#10 CU GRD FROM PANEL P TO NEW SPRINKLER CONTROLLER LOCATED IN CARPORT.



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DEMOLITION NOTES:

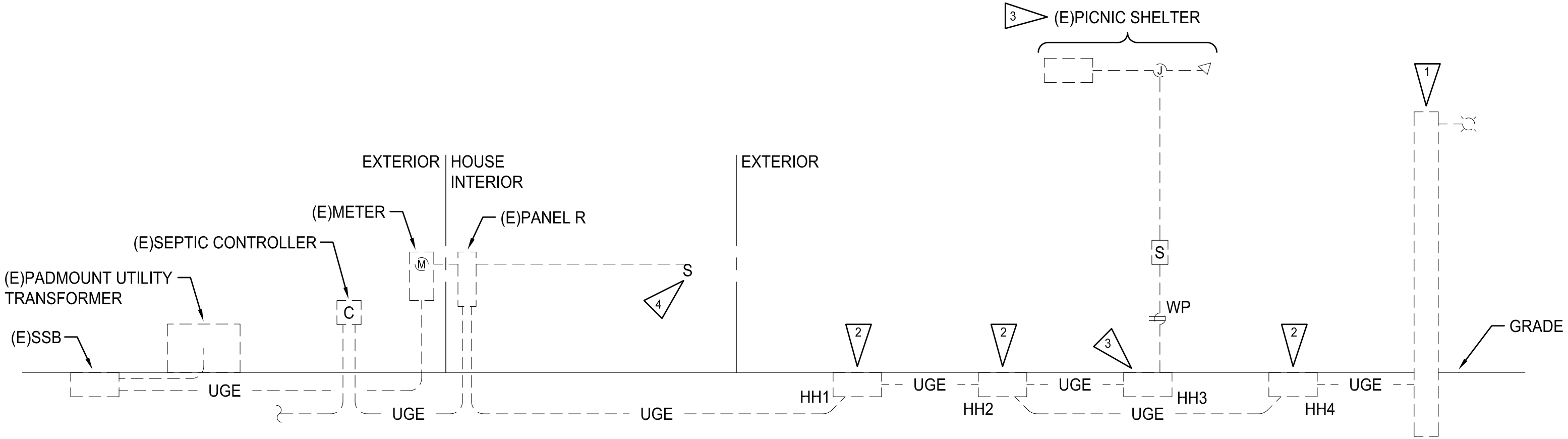
- 1

EXISTING DIRECT BURIAL CONCRETE POLE AND LIGHT FIXTURE TO BE REMOVED AND LEGALLY DISPOSED OF OFF SITE.
- 2

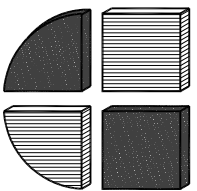
EXISTING HANDHOLES. CONTRACTOR SHALL FIELD LOCATE. REMOVE EXISTING WIRING BACK TO EXISTING HOUSE PANEL R. ABANDON (E)2" CONDUIT AND HANDHOLES. THESE WILL BE REMOVED BY OTHERS AS PART OF NEW CONSTRUCTION.
- 3

EXISTING ROUND HANDHOLE WITH COVER AT EXISTING PICNIC STRUCTURE TO REMAIN. CONTRACTOR TO REMOVE AND REPLACE TWO(2) EXISTING LIGHT FIXTURES. REUSE EXISTING SURFACE CONDUIT. CONTRACTOR TO REMOVE EXISTING WIRE AND INSTALL NEW. SEE PARTIAL PLAN SHEET E3.
- 4

REMOVE LIGHT SWITCH AND WIRE BACK TO EXISTING HOUSE PANEL R. PROVIDE BLANK COVER PLATE.



EXISTING POWER RISER DEMOLITION DIAGRAM  
NO SCALE



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Job Number: 18-079

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PFN: 19-103913LDA

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REVISIONS					
REV	DATE	BY	APP'D	DESCRIPTION	

DESIGNED BY: GLW  
DRAWN BY: JAE  
CHECKED BY: GLW/SLH  
APPROVED BY: GLW/SLH  
SCALE: AS NOTED  
DATE: AUGUST, 2020

MEADOWDALE BEACH PARK  
AND ESTUARY DESIGN  
PFN 19-103913LDA

EXISTING POWER RISER  
DEMOLITION DIAGRAM



ELECTRICAL NOTES:

- 1

REMOVE EXISTING SURFACE MOUNTED FLOOD LIGHT AND PROVIDE ILP - FML55WLEDUNIV40BMAPC120VGSWG OR OWNER APPROVED EQUAL. CONTROL IS VIA TIMECLOCK AT MAIN ELECTRICAL SERVICE. SEE POWER RISER DIAGRAM SHEET E4.
- 2

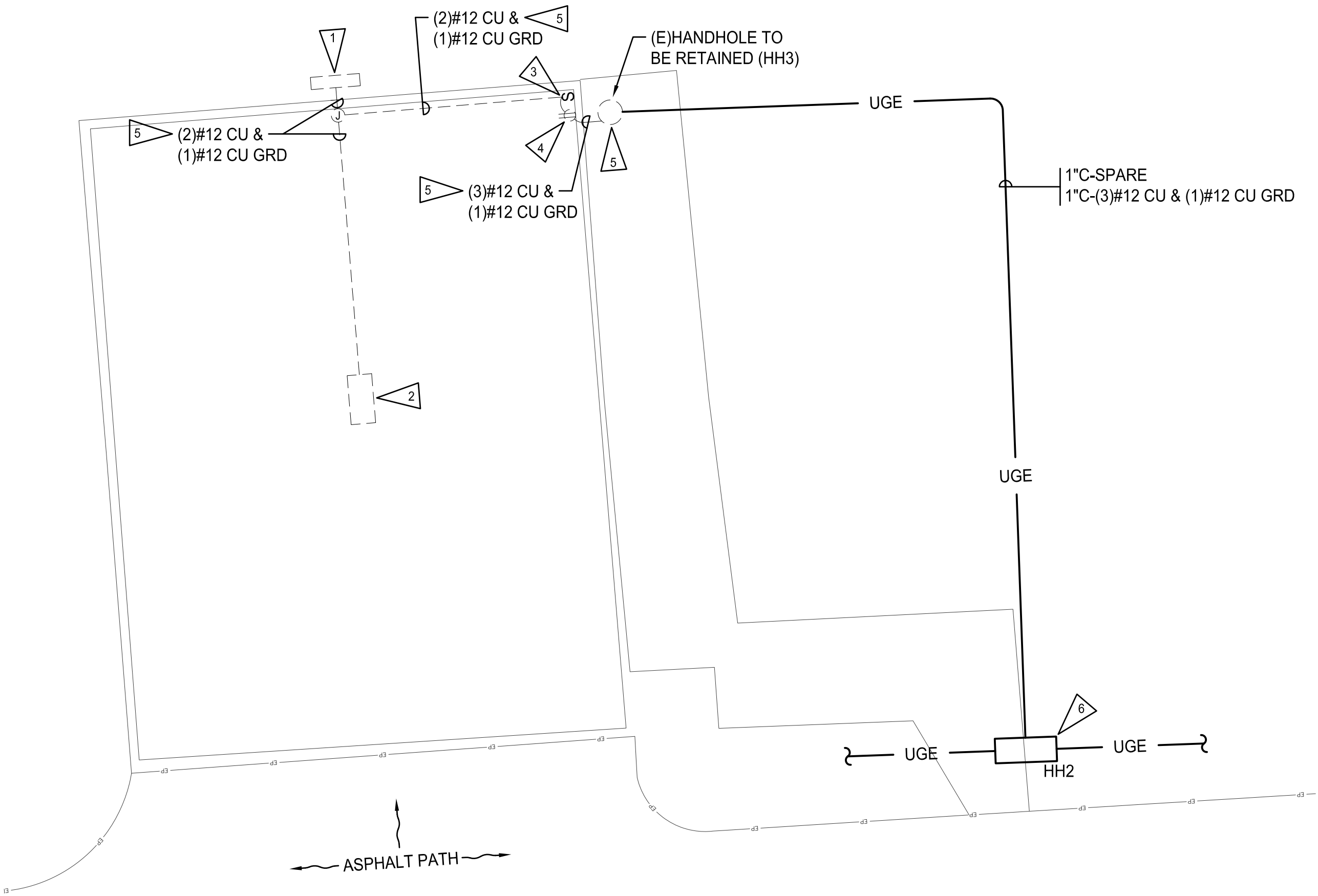
REMOVE EXISTING SURFACE MOUNTED LIGHT FIXTURE AND PROVIDE ILP - CP7LU40MWS OR OWNER APPROVED EQUAL. CONTROL IS VIA TIMECLOCK AT MAIN ELECTRICAL SERVICE. SEE POWER RISER DIAGRAM SHEET E4.
- 3

REMOVE EXISTING TOGGLE SWITCH AND PROVIDE NEW BLANK COVER.
- 4

REMOVE EXISTING SURFACE MOUNT DUPLEX RECEPTACLE, BOX AND PROVIDE NEW, 20A, 120V, DUPLEX, GFCI RECEPTACLE IN NEW DOUBLE GANG CAST BOX WITH NEMA 3R, "IN USE" PADLOCKABLE COVER.
- 5

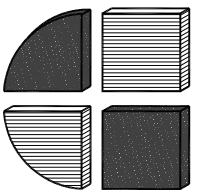
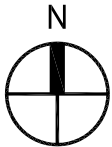
REMOVE EXISTING WIRE PAST (E)HANDHOLE TO REMAIN FOR PICNIC SHELTER AND PROVIDE NEW WIRE TO ALL DEVICES. REUSE EXISTING CONDUIT.
- 6

STAKE HANDHOLE LOCATION AND OBTAIN OWNER APPROVAL PRIOR TO INSTALLATION OF HANDHOLE AND CONDUIT ROUTING IN THIS AREA.



EXISTING PICNIC CANOPY ELECTRICAL PLAN

SCALE: 1/4"=1'-0"



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BY: _____
R/W PERMIT NO. _____
DATE _____
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CHECKED BY: GLW/SLH  
APPROVED BY: GLW/SLH  
SCALE: AS NOTED  
DATE: AUGUST, 2020

MEADOWDALE BEACH PARK  
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EXISTING PICNIC CANOPY  
ELECTRICAL PLAN



ELECTRICAL NOTES:

- 1

NEMA 3R, SERVICE ENTRANCE RATED, ENCLOSED, 200A, 240V, 1PH, 25,000 AIC CIRCUIT BREAKER.
- 2

PROVIDE RECTANGULAR PULL BOX 14" x 19" x 12" WITH "ELECTRIC" LID. WSDOT J-11A OR OWNER APPROVED EQUAL. SEE SHEET E-1, ELECTRICAL NOTE 4.
- 3

RETAIN EXISTING IN GROUND HANDHOLE.
- 4

PROVIDE NEMA 4X, HINGED AND PAD LOCKABLE, 12"x12"x8" BOX WITH ASTRONOMICAL TIMECLOCK TORK EWZ103 OR OWNER APPROVED EQUAL.
- 5

REMOVE EXISTING HOUSE SERVICE GROUND AND CONNECT NEW GROUND FROM SERVICE PANEL P.
- 6

REMOVE EXISTING SERVICE WIRES FROM (E)SSB TO (E)PANEL R METER. REMOVE METER AND TURN OVER TO UTILITY. CONTRACTOR MAY INTERCEPT EXISTING CONDUIT AND REUSE.
- 7

PROVIDE (2)10'-0" x 3/4" COPPER CLAD STEEL GROUND RODS SPACED NO LESS THAN 10 FEET APART. PROVIDE #6 BARE CU BETWEEN EACH GROUND ROD AND UP TO EQUIPMENT MOUNTING STRUCTURE AND ELECTRICAL PANEL.

CONDUIT AND CONDUCTOR SCHEDULE:

- 1

2-1/2"C-(3)#300 KCM AL
- 2

2-1/2"C-(3)#300 KCM AL & (1)#2 AL GRD
- 3

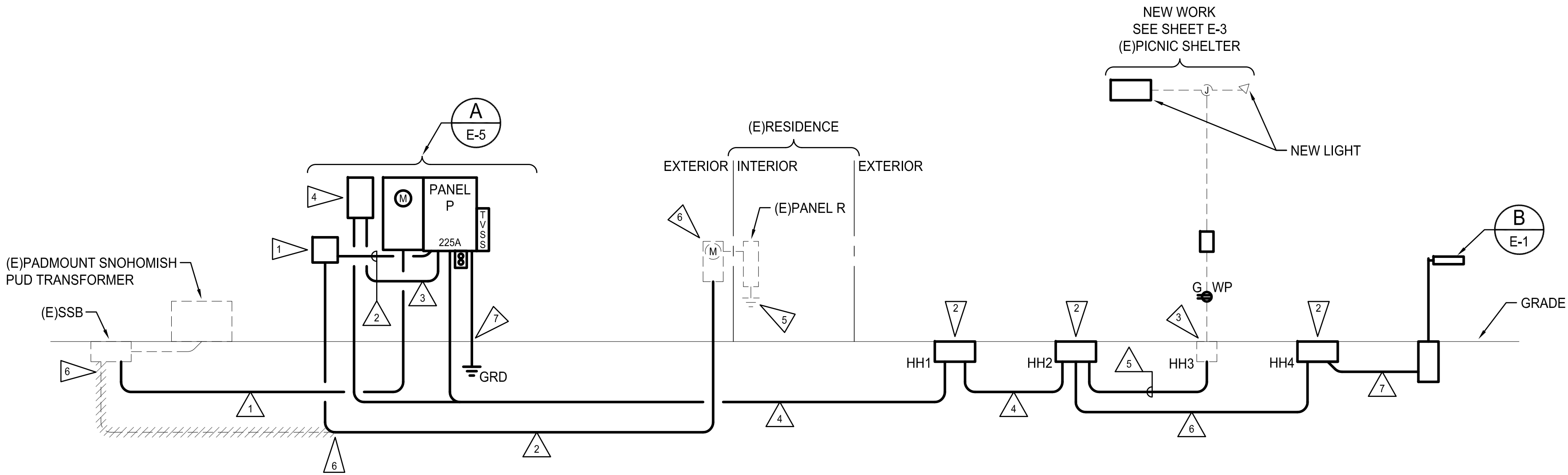
1"C-(3)#10 CU & (1)#10 CU GRD
- 4

(1)2"C-EMPTY WITH PULLSTRING - FROM PANEL P  
(1)2"C-(3)#8 CU & (1)#8 CU GRD FROM TIMECLOCK
- 5

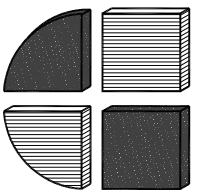
(1)1"C-EMPTY WITH PULLSTRING  
(1)1"C-(3)#12 CU & (1)#12 CU GRD
- 6

(1)2"C-EMPTY WITH PULLSTRING  
(1)2"C-(2)#8 CU & (1)#8 CU GRD
- 7

1"C-(2)#8 CU & (1)#8 CU GRD



NEW POWER RISER DIAGRAM  
NO SCALE



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BY:	R/W PERMIT NO.
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PFN: 19-103913LDA	

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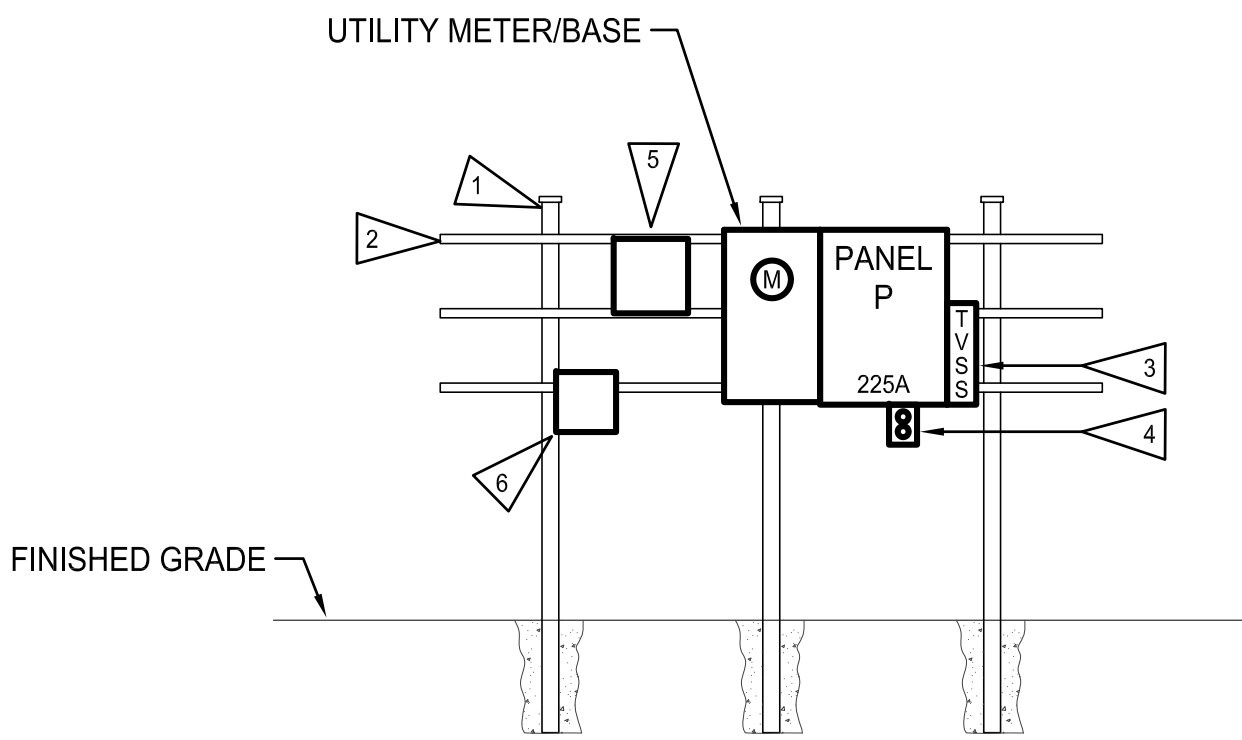
REVISIONS				
REV	DATE	BY	APP'D	DESCRIPTION

DESIGNED BY: GLW  
DRAWN BY: JAE  
CHECKED BY: GLW/SLH  
APPROVED BY: GLW/SLH  
SCALE: AS NOTED  
DATE: AUGUST, 2020

MEADOWDALE BEACH PARK  
AND ESTUARY DESIGN  
PFN 19-103913LDA

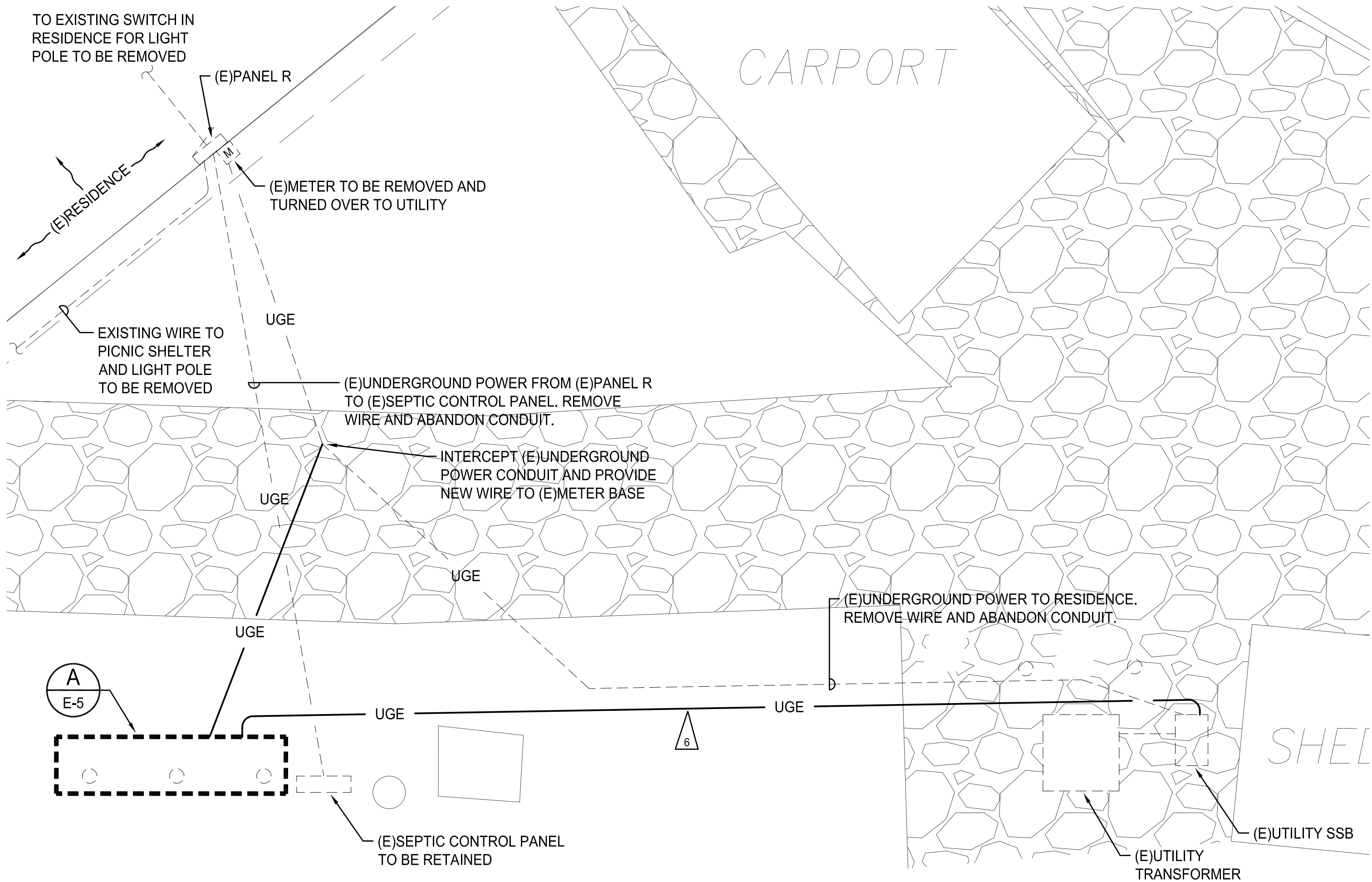
NEW POWER RISER DIAGRAM



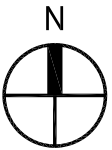


ELEVATION

**A** **SERVICE EQUIPMENT MOUNTING**  
E-5 NOT TO SCALE



**PARTIAL ELECTRICAL SITE PLAN**  
SCALE: 1/4"=1'-0"



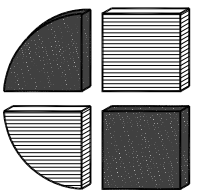
**ELECTRICAL NOTES:**

- 1 PROVIDE 8'-0" SECTION OF 3" RIGID GALVANIZED STEEL CONDUIT WITH THREADED END CAP. PROVIDE 8" ROUND x 3'-0" DEEP, 3000 PSI, CONCRETE BASE AND EMBED CONDUIT 3'-0" BELOW FINISHED GRADE. TYPICAL OF THREE(3), STAKE LOCATION AND OBTAIN OWNER APPROVAL PRIOR TO INSTALLATION.
- 2 PROVIDE (3)1-5/8" HOT DIP GALVANIZED STRUT BETWEEN RIGID STEEL CONDUIT POSTS FOR MOUNTING EQUIPMENT. DRILL CONDUIT AND PROVIDE STAINLESS STEEL MOUNTING HARDWARE FOR STRUT AND EQUIPMENT MOUNTING.
- 3 PROVIDE NEMA 3R, TRANSIENT VOLTAGE SURGE PROTECTIVE DEVICE (TVSS), SIEMENS TPS3A1115D2 OR OWNER APPROVED EQUAL. PROVIDE 3/4" CONDUIT NIPPLE AND 5#10 CU, WITH 30/2P CIRCUIT BREAKER IN PANEL.
- 4 PROVIDE 120V, 20A, GFCI DUPLEX RECEPTACLE WITH A NEMA 3R "IN-USE" COVER.
- 5 TIMECLOCK. SEE POWER RISER DIAGRAM SHEET E-4.
- 6 ENCLOSED CIRCUIT BREAKER. SEE POWER RISER DIAGRAM SHEET E-4.

NEMA 3R, GASKETED, DOOR IN DOOR

SURFACE MOUNTING 25,000 AIC									
PANEL SCHEDULE									
NO.		LOCATION: BY PUD TRANSFORMER SERVING: SITE/ RESIDENCE		240/120 VOLTS 1PHASE 3WIRE 225 AMPS WITH 225 MAIN BREAKER					
CKT NO.	LOAD DESCRIPTION	KVA	TRIP AMPS	TRIP AMPS	KVA	LOAD DESCRIPTION	CKT NO.	TRIP AMPS	TRIP AMPS
1	SPACE	-	-	20	-	SPACE	2	-	-
3							4		
5							6		
7							8		
9							10		
11							12		
13						SPARE	14		
15						.18 SHELTER RECEPTACLE	16		
17						.26 SHELTER LTS/POLE LIGHT	18		
19						.20 SPRINKLER CONTROLS	20		
21						.10 TIMECLOCK	22		
23						.10 EMON DMON METER	24		
25				20	.18	RECEPTACLE	26		
27				30	-	TVSS	28		
29	SPACE			2			30		
REMARKS: PROVIDE WITH FEED THRU LUGS TO SERVE EXISTING RESIDENCE PANEL R NEW ENCLOSED CIRCUIT BREAKER.				CONNECTED LOAD: 29.3 KVA 122 AMPS					
				DEMAND LOAD: 29.5 KVA 123 AMPS					

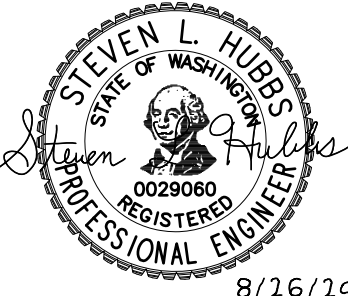
PROVIDE HANDLE TIES FOR ALL MULTI-CIRCUIT HOMERUNS SHARING A NEUTRAL PER THE NATIONAL ELECTRIC CODE ARTICLE 210.4 MULTIWIRE BRANCH CIRCUITS, PART (B) DISCONNECTING MEANS. DRAWINGS ARE DIAGRAMMATIC. WHERE THE CONTRACTOR MODIFIES THE CIRCUITING, THE CONTRACTOR SHALL PROVIDE AN INDIVIDUAL NEUTRAL PER CIRCUIT, MULTI-POLE CIRCUIT BREAKERS, OR CIRCUIT BREAKER HANDLE TIE TO MEET THE NEC ARTICLE. ALL COSTS ASSOCIATED WITH MODIFICATIONS SHALL BE INCLUDED IN THE CONTRACTOR'S BID.



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Phone: (253) 759-0118  
Job Number: 18-079

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BY: \_\_\_\_\_  
R/W PERMIT NO. \_\_\_\_\_  
DATE \_\_\_\_\_  
**PFN: 19-103913LDA**

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REVISIONS				
REV	DATE	BY	APP'D	DESCRIPTION

DESIGNED BY: GLW  
DRAWN BY: JAE  
CHECKED BY: GLW/SLH  
APPROVED BY: GLW/SLH  
SCALE: AS NOTED  
DATE: AUGUST, 2020

**MEADOWDALE BEACH PARK  
AND ESTUARY DESIGN**  
PFN 19-103913LDA

**PARTIAL ELECTRICAL SITE PLAN/  
DETAILS/SCHEDULES**

**E-5**

SHEET # 70 OF 81



ALL UTILITY WORK WITHIN THE BNSF RIGHT-OF-WAY INCLUDING, BUT NOT LIMITED TO, LOCATION, PROTECTION, INSTALLATION, AND RELOCATION OF UTILITIES SHALL COMPLY WITH BNSF'S UTILITY ACCOMMODATION MANUAL ([HTTP://WWW.BNSF.COM/COMMUNITIES/FAQS/PDF/UTILITY.PDF](http://www.bnsf.com/communities/faqs/pdf/utility.pdf)).

FOR ALL WORK OUTSIDE THE BNSF RIGHT-OF-WAY, THE CONTRACTOR SHALL CALL THE ONE-CALL UTILITY CENTER AT 811 OR 1-800-424-5555 FOR UTILITY LOCATIONS NOT LESS THAN TWO (2) BUSINESS DAYS BEFORE DEMOLITION WORK. FOR ADDITIONAL REQUIREMENTS, SEE SHEET G-3.

00500900001601  
 MAKE ALL VALVE BOX LOCATIONS FOR  
 APPROVAL, TYPICAL. UNAPPROVED  
 LOCATIONS WILL BE REJECTED.

REFER TO SHEETS-3.3, S-3.4  
AND SB-1 FOR BRIDGE,  
BOARDWALK AND ABUTMENTS


TRANSITION FROM POLY TO  
PVC MAINLINE

PIPE BENEATH BRIDGE AND BOARDWALK TO BE 2" POLY AS SPECIFIED. CHANGE FROM PVC TO POLY 6' NORTH AND SOUTH FROM BRIDGE BULKHEADS. HANG MAINLINE ON INSIDE OF BRIDGE BEAM AS SHOWN ON SHEET SB-1 AND AS FIELD DIRECTED. SECURE AT 24" O.C. MINIMUM. SUBMIT BRACKETS FOR APPROVAL PRIOR TO CONSTRUCTION.

HANG MAINLINE AND CONTROL WIRE FROM CONCRETE ABUTMENTS WITH BRACKETS SUITABLE FOR ATTACHMENT TO CONCRETE. SPACE BRACKETS AT 24" O.C. MIN. AND SECURE AT PIPE AND WIRE AT EACH BRACKET. SUBMIT BRACKETS FOR OWNER APPROVAL PRIOR TO CONSTRUCTION

### TRANSITION TO DRIP LINE, TYPICAL

6" CLASS 200 PVC  
SLEEVE, TYP.



0 30  
SCALE IN FEET

NOTES:

1. HORIZONTAL DATUM: WASHINGTON STATE PLANE NORTH ZONE, NAD 83, U.S. FEET.
2. VERTICAL DATUM: NAVD 88
3. DRAWINGS ARE INTENDED TO BE VIEWED IN COLOR. SOME INFORMATION WILL BE LOST WITH BLACK AND WHITE VIEWING.
4. SEE SHEET I-3 FOR IRRIGATION NOTES, LEGEND, AND SCHEDULE.

APPROVED FOR CONSTRUCTION  
BY: W. E. C.  
R/W PERMIT NO. NA  
DATE 10/29/2020  
**PFN: 19-103913LD**

**100% CONSTRUCTION DRAWINGS/BID SET**

[illegible]

DESIGNED BY: WS  
DRAWN BY: WS  
CHECKED BY: PH  
APPROVED BY: PH  
SCALE: AS NOTED  
DATE: SEPTEMBER 2020

**MEADOWDALE BEACH PARK  
AND ESTUARY DESIGN**  
PFN 19-103913LDA

**IRRIGATION PLAN (1 OF 3)**

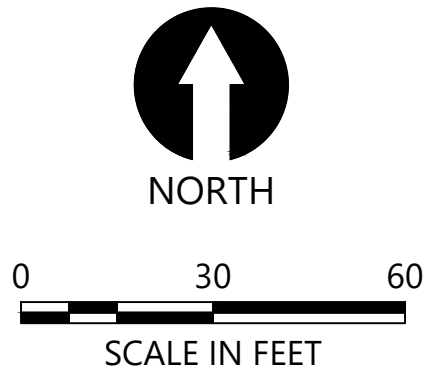
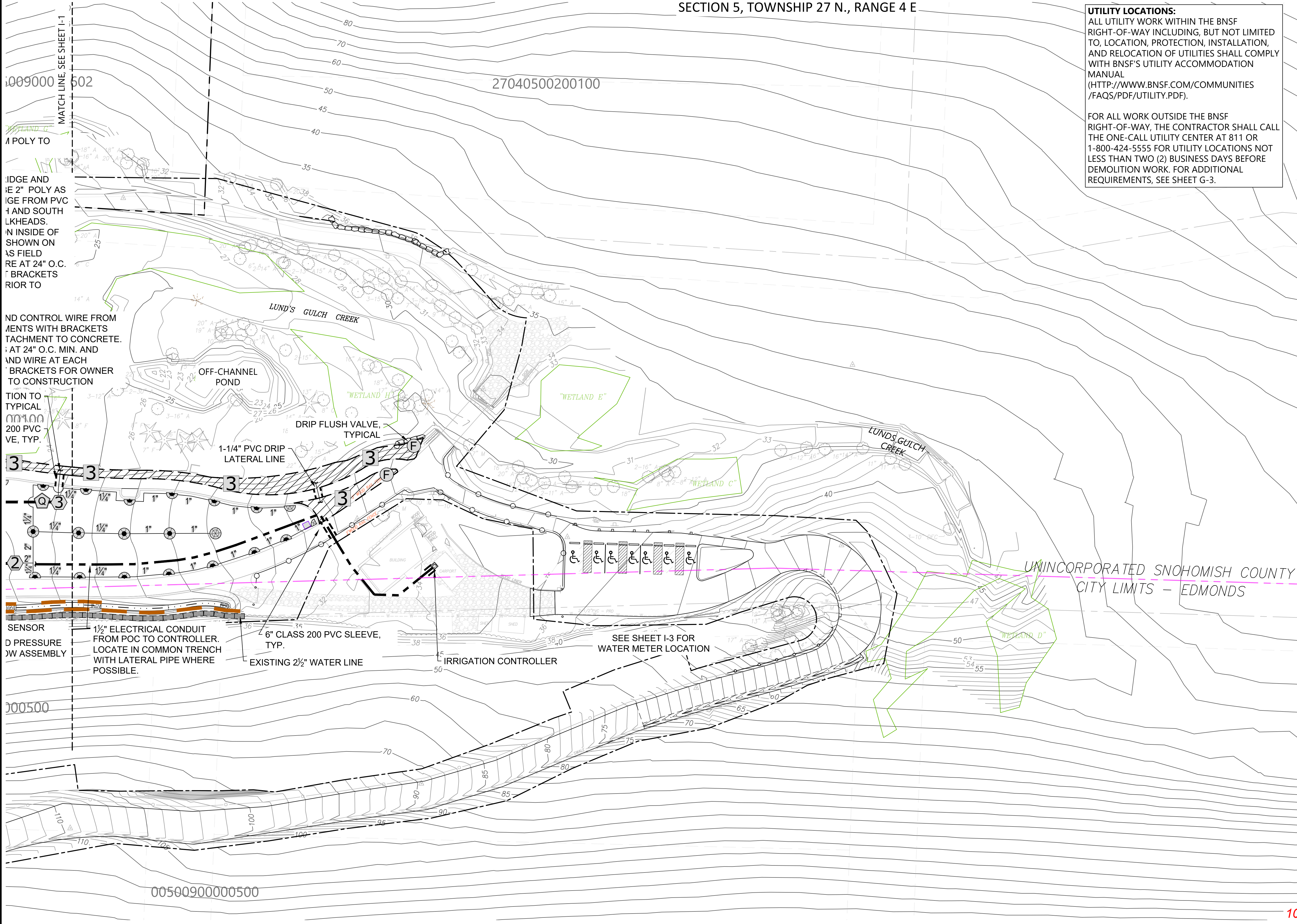
**I-1**

SHEET # **71** OF **81**



**UTILITY LOCATIONS:**  
ALL UTILITY WORK WITHIN THE BNSF RIGHT-OF-WAY INCLUDING, BUT NOT LIMITED TO, LOCATION, PROTECTION, INSTALLATION, AND RELOCATION OF UTILITIES SHALL COMPLY WITH BNSF'S UTILITY ACCOMMODATION MANUAL (HTTP://WWW.BNSF.COM/COMMUNITIES/FAQS/PDF/UTILITY.PDF).

FOR ALL WORK OUTSIDE THE BNSF RIGHT-OF-WAY, THE CONTRACTOR SHALL CALL THE ONE-CALL UTILITY CENTER AT 811 OR 1-800-424-5555 FOR UTILITY LOCATIONS NOT LESS THAN TWO (2) BUSINESS DAYS BEFORE DEMOLITION WORK. FOR ADDITIONAL REQUIREMENTS, SEE SHEET G-3.



- NOTES:
- 1. HORIZONTAL DATUM: WASHINGTON STATE PLANE NORTH ZONE, NAD 83, U.S. FEET.
  - 2. VERTICAL DATUM: NAVD 88
  - 3. DRAWINGS ARE INTENDED TO BE VIEWED IN COLOR. SOME INFORMATION WILL BE LOST WITH BLACK AND WHITE VIEWING.
  - 4. SEE SHEET I-3 FOR IRRIGATION NOTES, LEGEND, AND SCHEDULE.
  - 5. CONTRACTOR SHALL PROVIDE CONTINUOUS UTILITY SERVICE AND DRIVEWAY ACCESS TO RANGER RESIDENCE.

APPROVED FOR CONSTRUCTION  
R/W PERMIT NO. NA  
DATE 10/29/2020  
PFN: 19-103913LDA

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720 Olive Way | Suite 1900 | Seattle, WA 98101

REVISIONS				
REV	DATE	BY	APP'D	DESCRIPTION

DESIGNED BY: WS

DRAWN BY: WS

CHECKED BY: PH

APPROVED BY: PH

SCALE: AS NOTED

DATE: SEPTEMBER 2020

**MEADOWDALE BEACH PARK AND ESTUARY DESIGN**

PFN 19-103913LDA

**IRRIGATION PLAN (2 OF 3)**

**I-2**

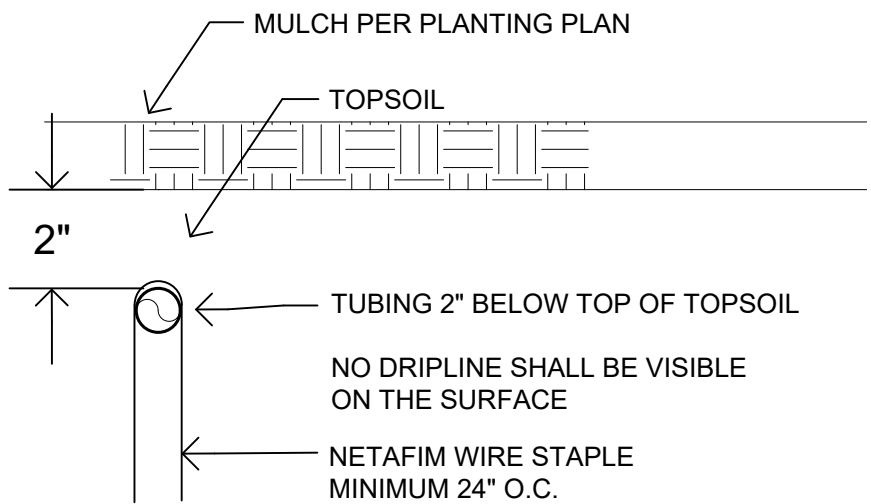
SHEET # **72** OF **81**

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Sep 15, 2020 9:07am chiewett



IRRIGATION NOTES

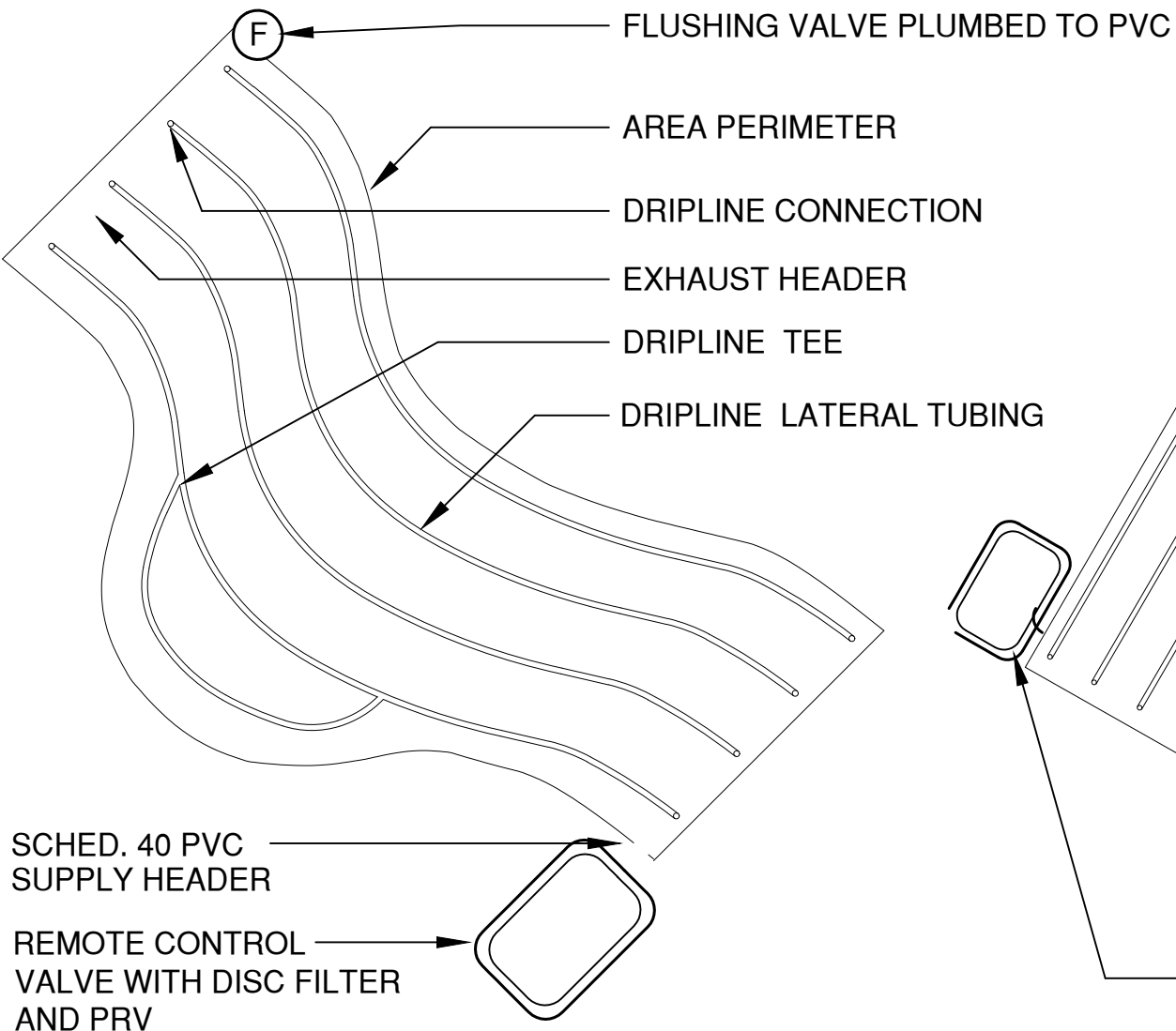
- PROVIDE SPARE WIRES AT ENDS OF MAINLINE AS INDICATED ON PLAN. LOOP SPARES THROUGH EACH INTERMEDIATE VAULT BACK TO CONTROLLER. LABEL ALL WIRES AS THEY PASS THROUGH EACH VAULT. USE 3M-DBY WIRE CONNECTORS.
- STAKE ALL VALVE BOX LOCATIONS FOR APPROVAL. PLAN IS DIAGRAMMATIC. NO VAULTS TO BE PLACED WITHIN TURF AREAS OR PLAYFIELDS. SET VALVE BOXES SQUARE TO ADJACENT BUILDING, CURB, OR PAVING.
- ALL IRRIGATION UNDER BUILDINGS, ROADS, WALKS, PARKING AREAS OR OTHER PAVED SURFACES SHALL BE SLEEVED. SLEEVES SHALL BE 6" MINIMUM, OR AS INDICATED. SLEEVING MAY BE INCLUDED FOR FUTURE WORK. SLEEVES TO MAINTAIN CODE REQUIRED 12" SEPARATION FROM ELECTRIC, STORM, AND OTHER UTILITIES. REFER TO CIVIL, PLUMBING AND OTHER DRAWINGS., AND 36" FOR FIRE LINES.
- ALL PIPE AND VALVES SHOWN UNDER PAVING ADJACENT AND PARALLEL TO PLANTED AREAS IS INTENDED TO BE PLACED IN THAT AREA WHERE POSSIBLE. ALL MATERIAL TO BE INSTALLED ON OWNERS PROPERTY.
- INSTALL IN-LINE CHECK VALVES ON LATERAL EVERY 8' OF ELEVATION CHANGE WHERE THERE IS 10' OR MORE OF ELEVATION CHANGE ACROSS A ZONE.
- MAKE ANY AND ALL REQUIRED ADJUSTMENTS TO THE IRRIGATION PLAN TO ASSURE COMPLETE AND ADEQUATE COVERAGE WITH MINIMUM OVERSPRAY.
- LATERAL LINES SHALL HAVE 18" OF COVER, AND MAIN LINES 24". 30" MAXIMUM COVER.
- REFER TO PLANTING PLAN FOR EXACT LAYOUT. INTENT IS THAT ALL NEW PLANTINGS RECEIVE ADEQUATE WATER.
- TEST STATIC PRESSURE AT POINT OF CONNECTION & SUBMIT WRITTEN RESULTS TO LANDSCAPE ARCHITECT PRIOR TO BEGINNING WORK. PRESSURE IS ANTICIPATED TO BE IN EXCESS OF 100 PSI PER CITY OF EDMONDS WATER.
- NO PIPING IS PERMITTED UNLESS WATER SUPPLY IS ACTIVE AND AVAILABLE.
- USE VARIABLE ARC NOZZLES ONLY WHERE FIXED ARC NOZZLES ARE NOT SUFFICIENT.
- SEE PROJECT SPECIFICATIONS FOR FURTHER INFORMATION AND ADDITIONAL DETAILS.



2 DRIP TUBE SECTION  
SCALE: NO SCALE

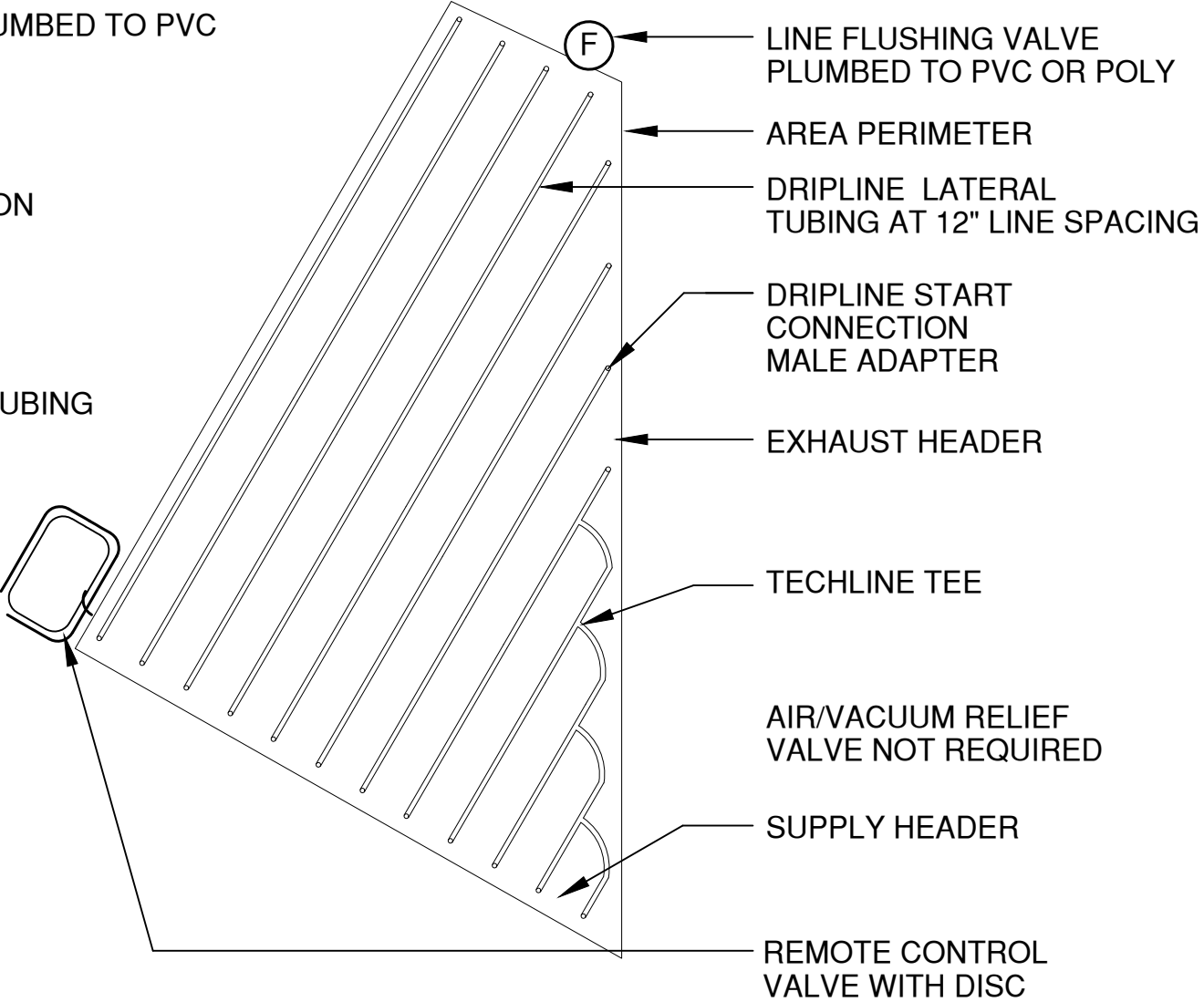
EQUIPMENT SCHEDULE

SYMBOL	DESCRIPTION	P.S.I.	RADIUS	DETAIL
	RAIN BIRD 1806-SAM-PRS-P45 POP-UP WITH HUNTER MP1000 ROTOR NOZZLE	45	15'	7-14
	RAIN BIRD 1806-SAM-PRS-P45 POP-UP WITH HUNTER MP2000 ROTOR NOZZLE	45	20'	7-14
	RAIN BIRD 1806-SAM-PRS-P45 POP-UP WITH HUNTER MP3000 ROTOR NOZZLE	45	30'	7-14
	EXISTING WATER METER IS NOT SHOWN - SEE SHEETS CU-2 AND CU-3			
	AUTOMATIC CONTROL VALVE, RAIN BIRD PEB SERIES PLASTIC, SIZE PER VALVE KEY			4-14
	QUICK COUPLER VALVE - RAIN BIRD 44DLRC			5-14
	CONTROLLER - RAIN BIRD IQ MODEL LXMEF WITH NCC-4G COMMUNICATION CARTRIDGE			4-13
	2" RPBA BACKFLOW ASSEMBLY, PRESSURE REGULATOR AND MASTER VALVE			1-14, 2-14
	1-1/2" FLOW SENSOR			3-14
	ISOLATION VALVE			6-14
	IN-LINE CHECK VALVE, SAME SIZE AS PIPE. DIMENSION ON AS-BUILT DAILY.			
	NDS 17MM DRIPLINE MODEL SFCV-BR-6212-XX DRIPLINE WITH 0.6 GPH EMITTERS AT 12" SPACING. REFER TO DETAILS SHEET I-3.			2-13, 3-13
	NETAFIM DRIP FLUSH VALVE			1-13
	2" CLASS 200 PVC IRRIGATION MAINLINE			
	2" 200 PSI RATED POLY PIPE IRRIGATION MAINLINE AT BRIDGE			
	SCHEDULE 40 PVC LATERAL PIPE - SIZE AS INDICATED. MINIMUM 1" SIZE, NO 1/2" OR 3/4" PIPE.			
	CLASS 200 PVC SLEEVE - 6" SIZE UNLESS OTHERWISE INDICATED			7-14
	SYMBOL INDICATING EXTENT OF INDIVIDUAL DRIP IRRIGATION ZONES			
	1-1/2" ELECTRICAL CONDUIT ROUTE FROM POINT OF CONNECTION TO CONTROLLER.			
NOT SHOWN	12 AWS TYPE UF COMMON WIRE = WHITE. 14 AWS TYPE UF CONTROL WIRE, RED, BLACK = SIGNAL, YELLOW, ORANGE= SPARE, LOCATING WIRE = BLUE. PAIGE P7171D COMMUNICATION WIRE FOR CONNECTION FROM FLOW SENSOR TO CONTROLLER.			



IRREGULAR AREAS: ODD CURVES

3 DRIP LINE LAYOUT  
SCALE: NO SCALE



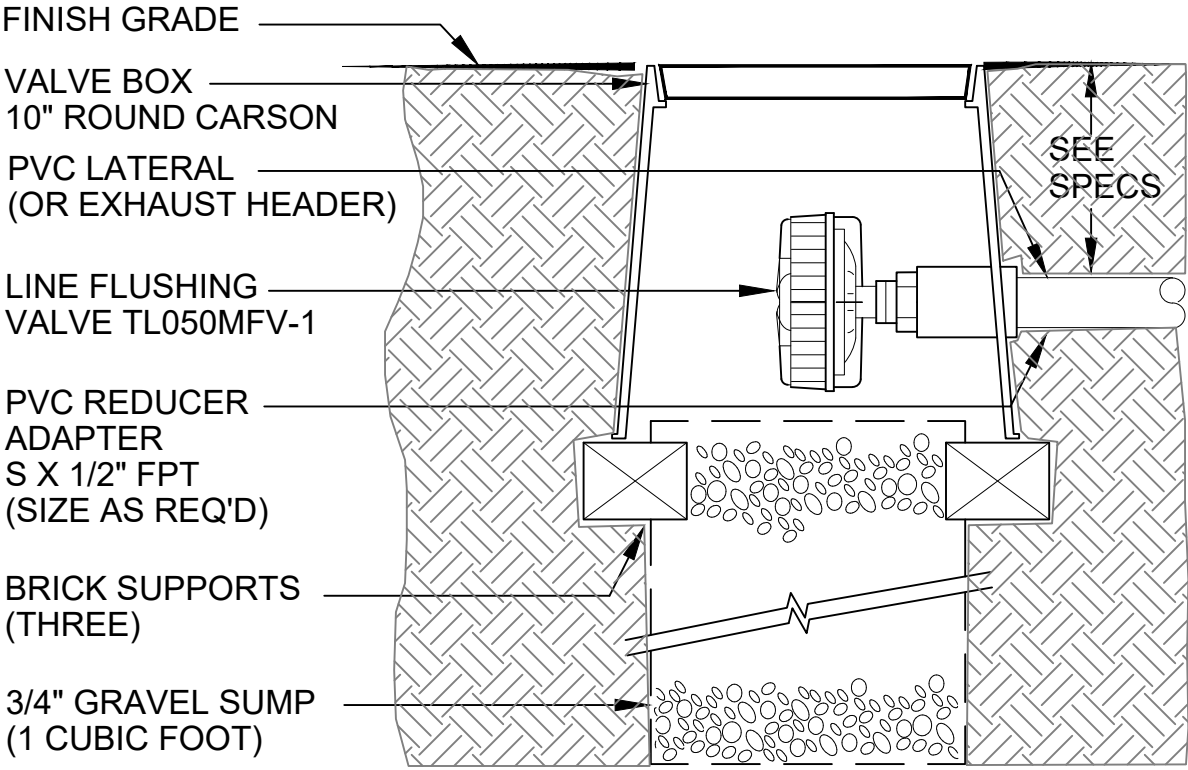
IRREGULAR AREAS: TRIANGULAR

VALVE KEY

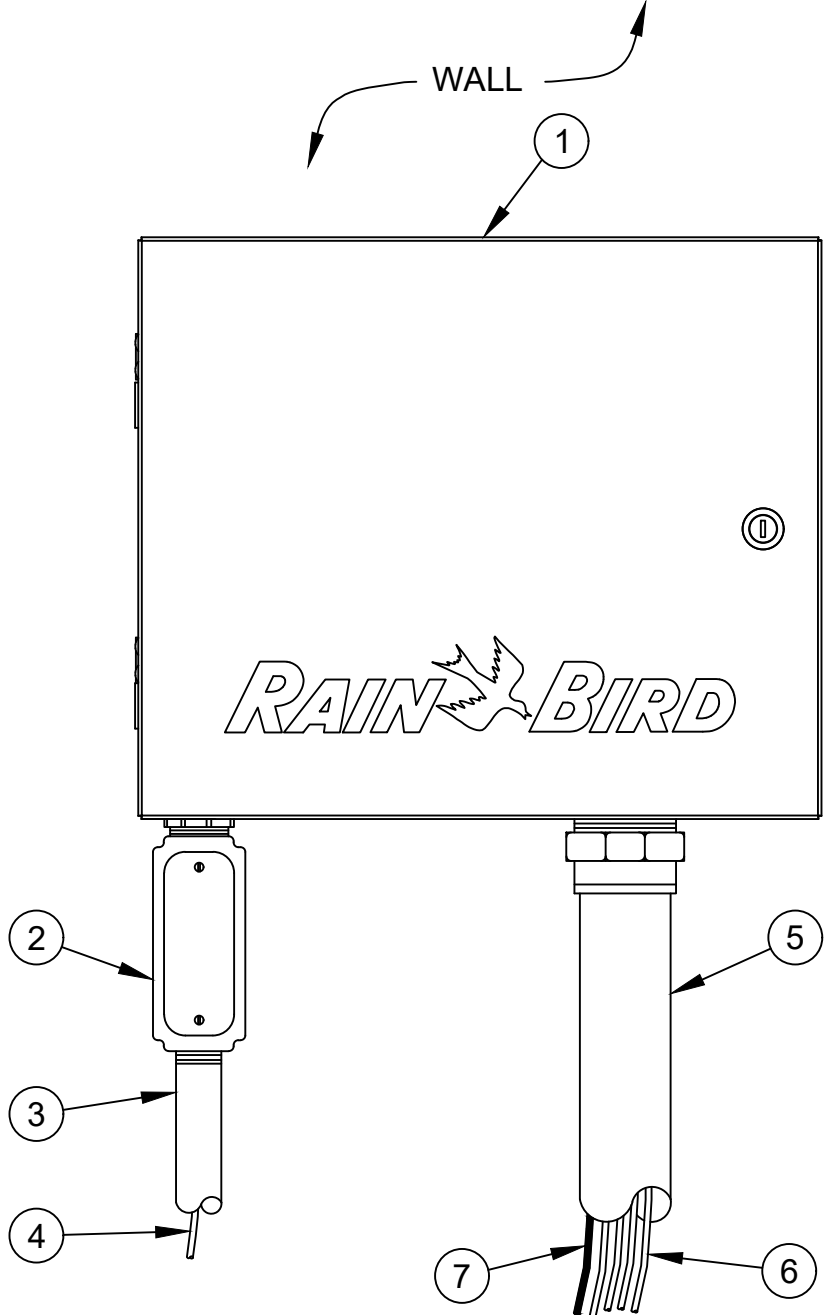
VALVE	SIZE	GPM	FEET
1	1 1/2"	44	45
2	1 1/2"	48	45
3	1"	25	30
4	1 1/2"	47	30
5	1 1/2"	46	30
6	1 1/2"	33	30
7	1 1/2"	34	30
8	1"	28	30
9	-	-	-
10	-	-	-
11	-	-	-
12	-	-	-

SCHEDULE 40 PVC  
LATERAL PIPE  
SIZING CHART

GPM	PIPE SIZE
0-11 GPM	1"
12-20 GPM	1 1/4"
21-30 GPM	1 1/2"
31-50 GPM	2"
51-70 GPM	2 1/2"
71-110 GPM	3"



1 DRIP FLUSH VALVE  
SCALE: NO SCALE



4 WALL MOUNT CONTROLLER  
SCALE: NO SCALE

- IRRIGATION CONTROLLER: RAIN BIRD ESP-LXMEF CONTROLLER WITH FLOW SMART MODULE IN LXMM METAL CABINET WITH OUTSIDE WALL MOUNT. INSTALL CONTROLLER AND CABINET ON WALL PER MANUFACTURER'S RECOMMENDATIONS.
- JUNCTION BOX
- 1-INCH CONDUIT AND FITTINGS TO POWER SUPPLY
- POWER SUPPLY WIRE
- 2-INCH CONDUIT AND FITTINGS FOR STATION WIRES
- MASTER VALVE AND REMOTE CONTROL VALVE WIRES
- FLOW SENSOR WIRE (PE 39, 89 OR 54) TO FLOW SENSOR

- NOTES:
- USE STEEL CONDUIT FOR ABOVE GRADE AND SCH 40 PVC CONDUIT FOR BELOW GRADE CONDITIONS.
  - PROVIDE PROPER GROUNDING COMPONENTS TO ACHIEVE GROUND RESISTANCE OF 10 OHMS OR LESS.
  - MOUNT CONTROLLER 60" ABOVE FLOOR.

APPROVED FOR CONSTRUCTION  
R/W PERMIT NO. NA  
DATE 10/29/2020  
PFN: 19-103913LDA

100% CONSTRUCTION DRAWINGS/BID SET

ONE INCH  
AT FULL SIZE IF NOT SHOWN  
INCH SCALE ACCORDINGLY

REVISIONS					
REV	DATE	BY	APP'D	DESCRIPTION	

DESIGNED BY: WS  
DRAWN BY: WS  
CHECKED BY: PH  
APPROVED BY: PH  
SCALE: AS NOTED  
DATE: SEPTEMBER 2020

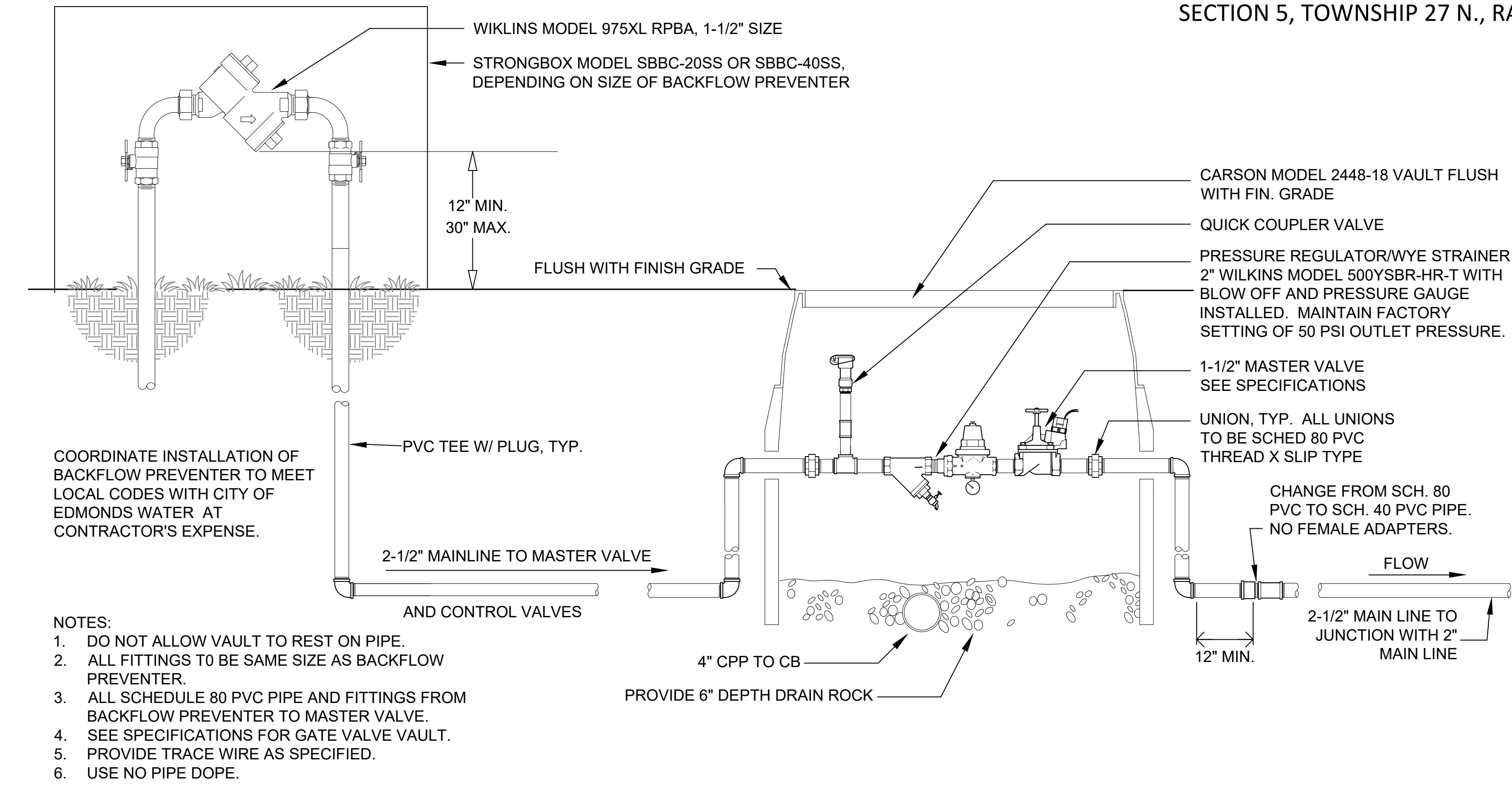
MEADOWDALE BEACH PARK  
AND ESTUARY DESIGN  
PFN 19-103913LDA

IRRIGATION PLAN (3 OF 3)

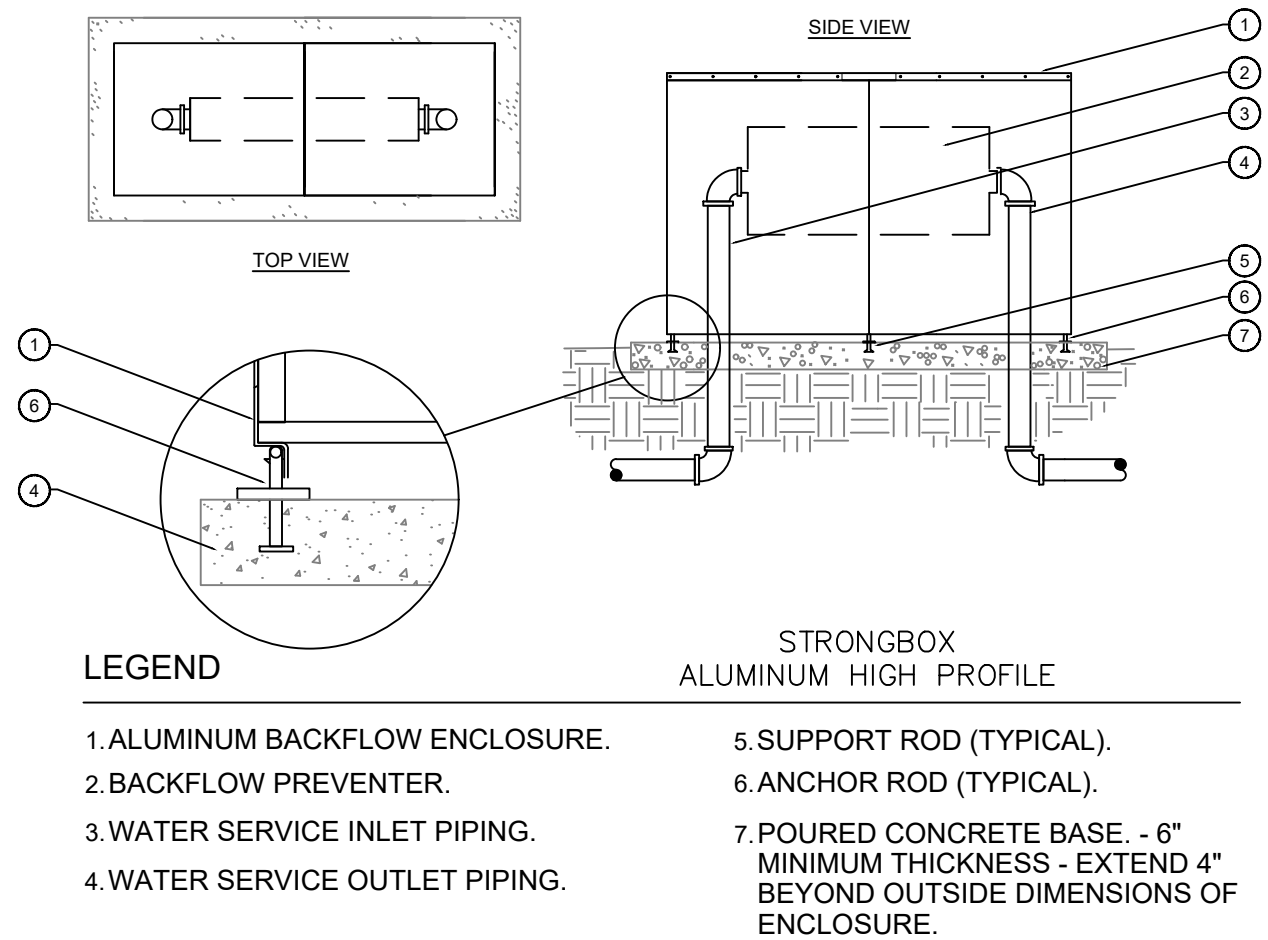
I-3

SHEET # 73 OF 81

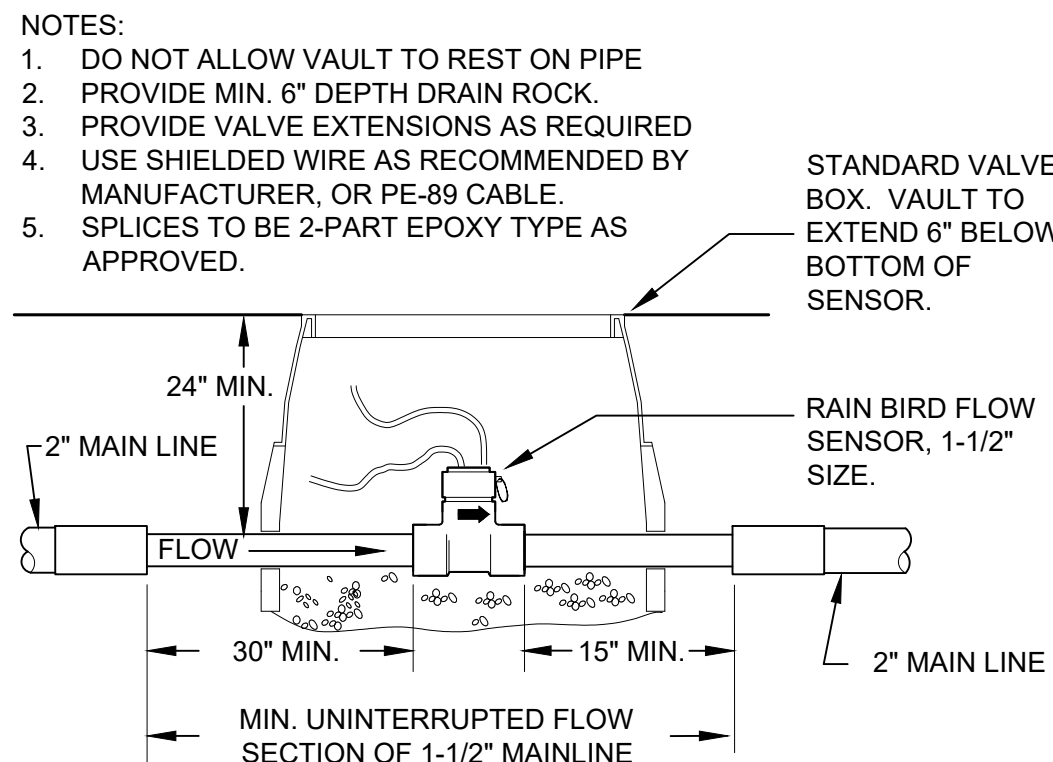




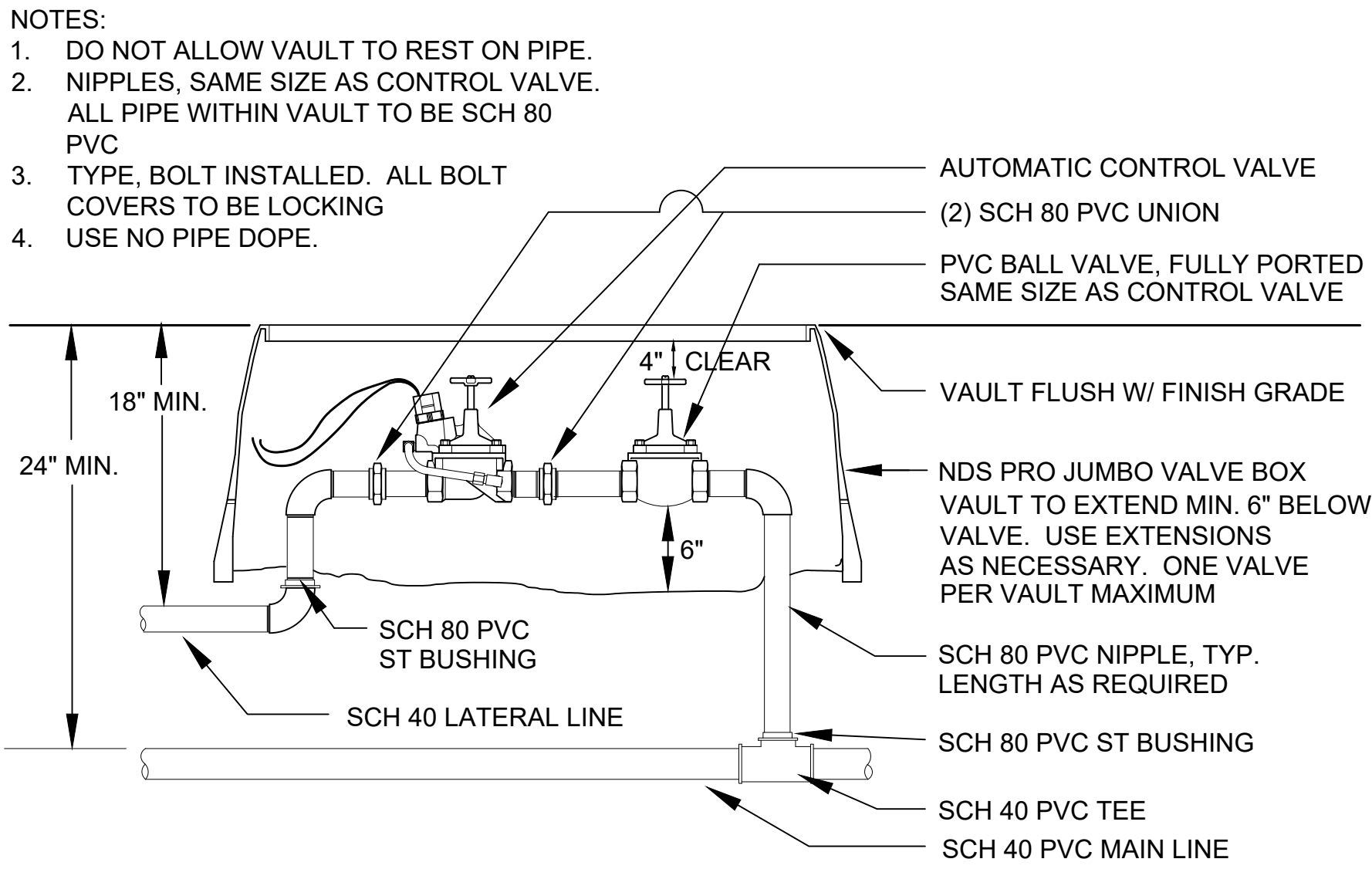
7 REDUCE PRESSURE BACKFLOW PREVENTER, PRESSURE REGULATOR AND MASTER VALVE  
C-1-3 SCALE: NO SCALE



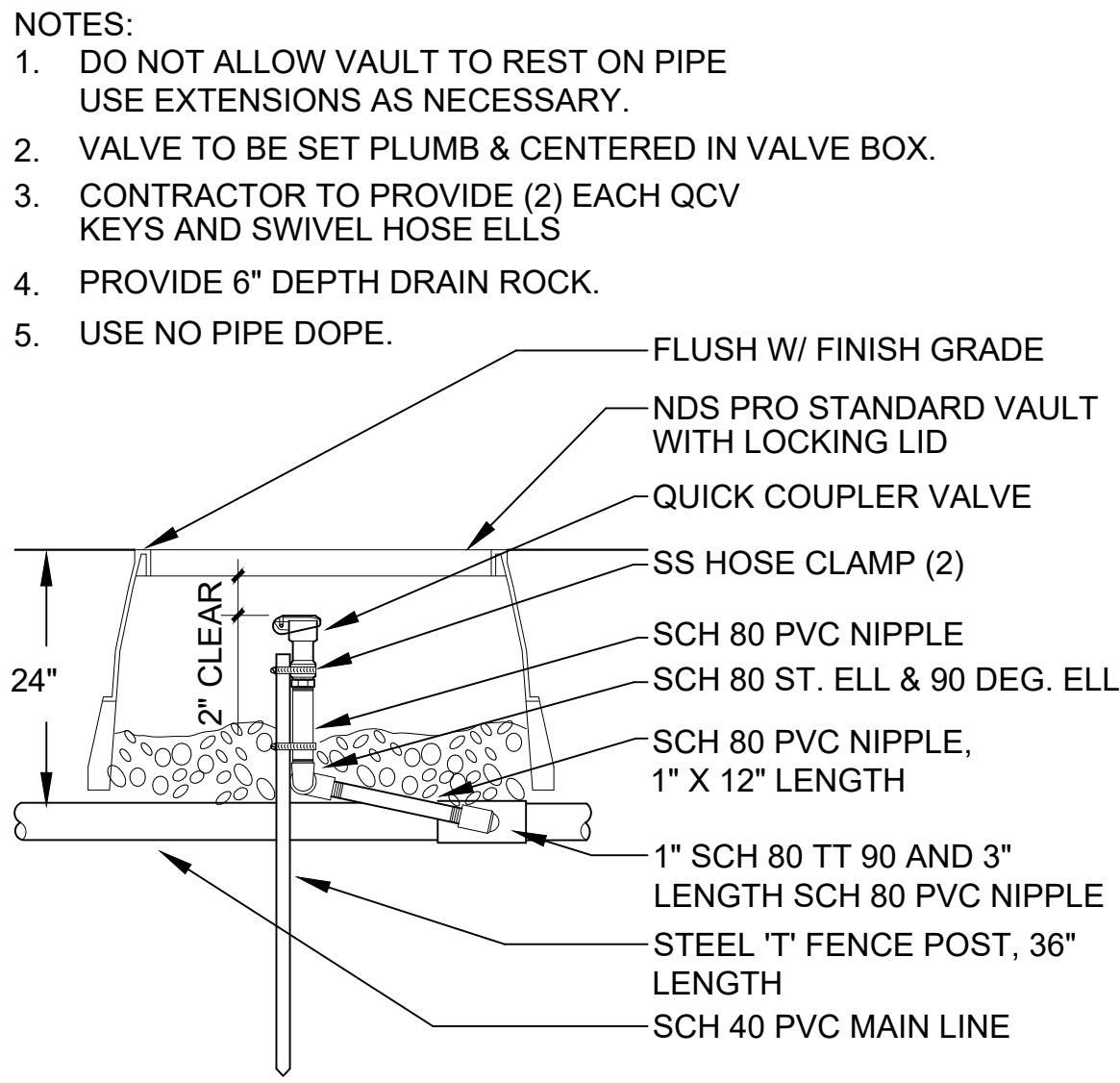
2 BACKFLOW ENCLOSURE  
C-1-3 SCALE: NO SCALE



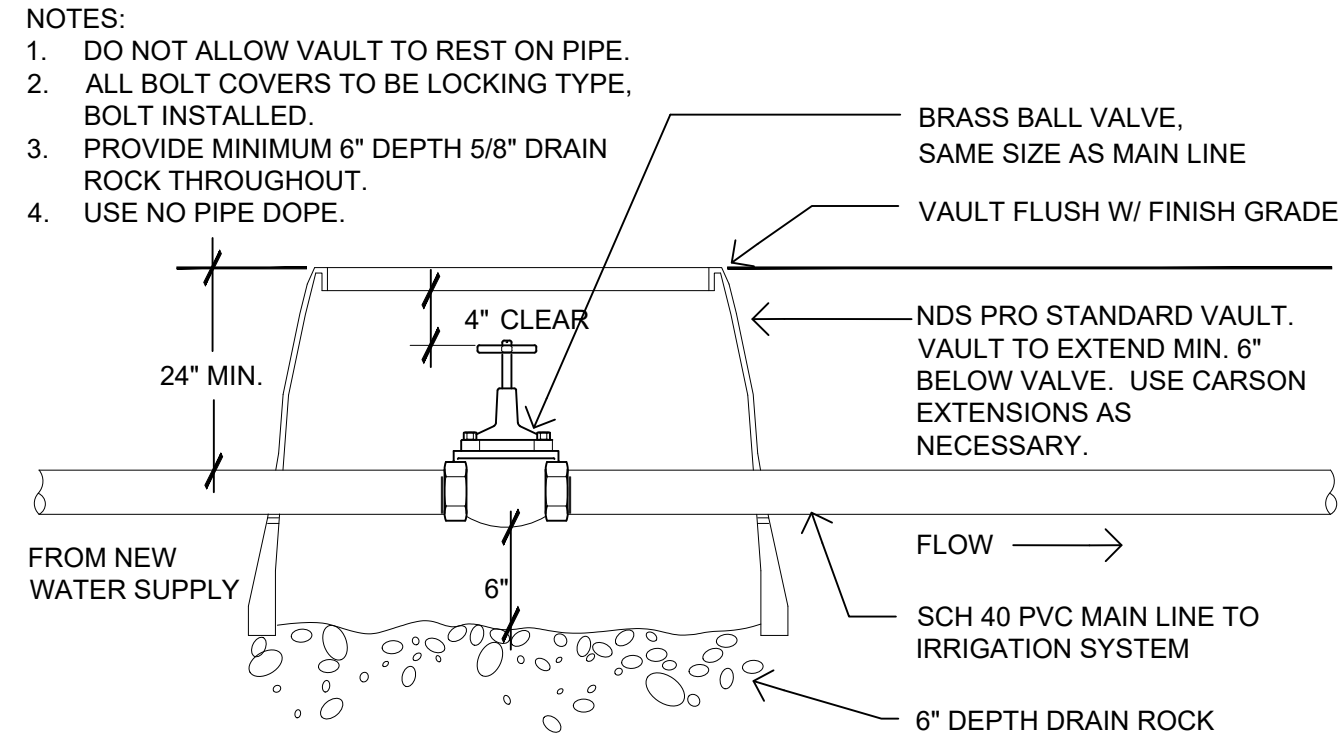
3 FLOW SENSOR  
C-1-3 SCALE: NO SCALE



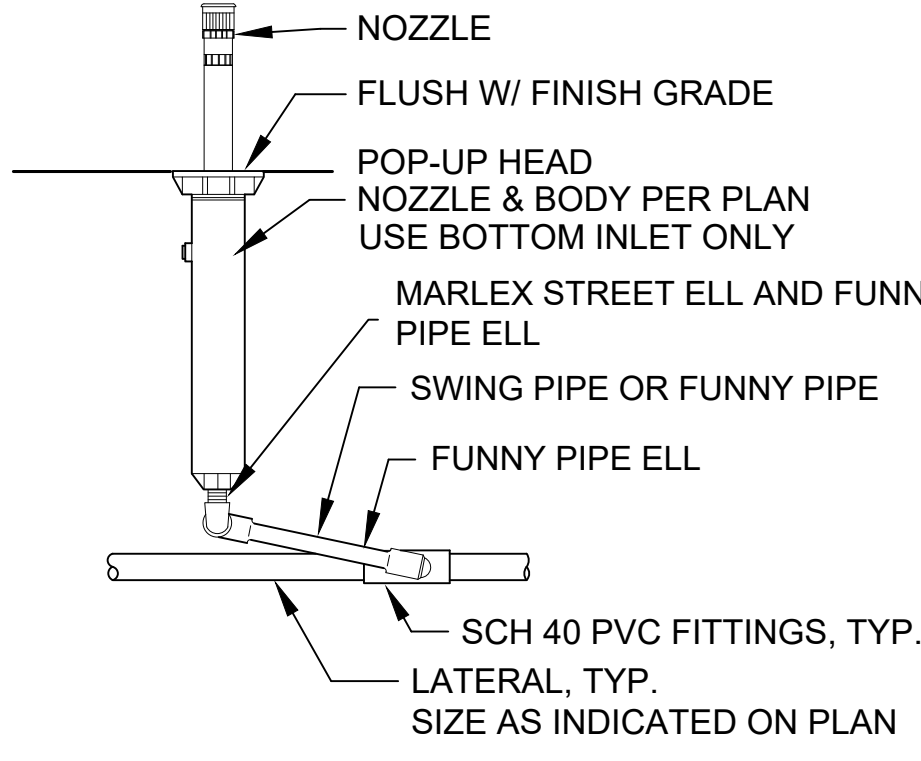
4 CONTROL VALVE  
C-1-3 SCALE: NO SCALE



5 QUICK COUPLER VALVE  
C-1-3 SCALE: NO SCALE



6 ISOLATION VALVE  
C-1-3 SCALE: NO SCALE



7 POP-UP SPRAY HEAD  
C-1-3 SCALE: NO SCALE

APPROVED FOR CONSTRUCTION  
R/W PERMIT NO. NA  
DATE 10/29/2020  
PFN: 19-103913LDA

100% CONSTRUCTION DRAWINGS/BID SET



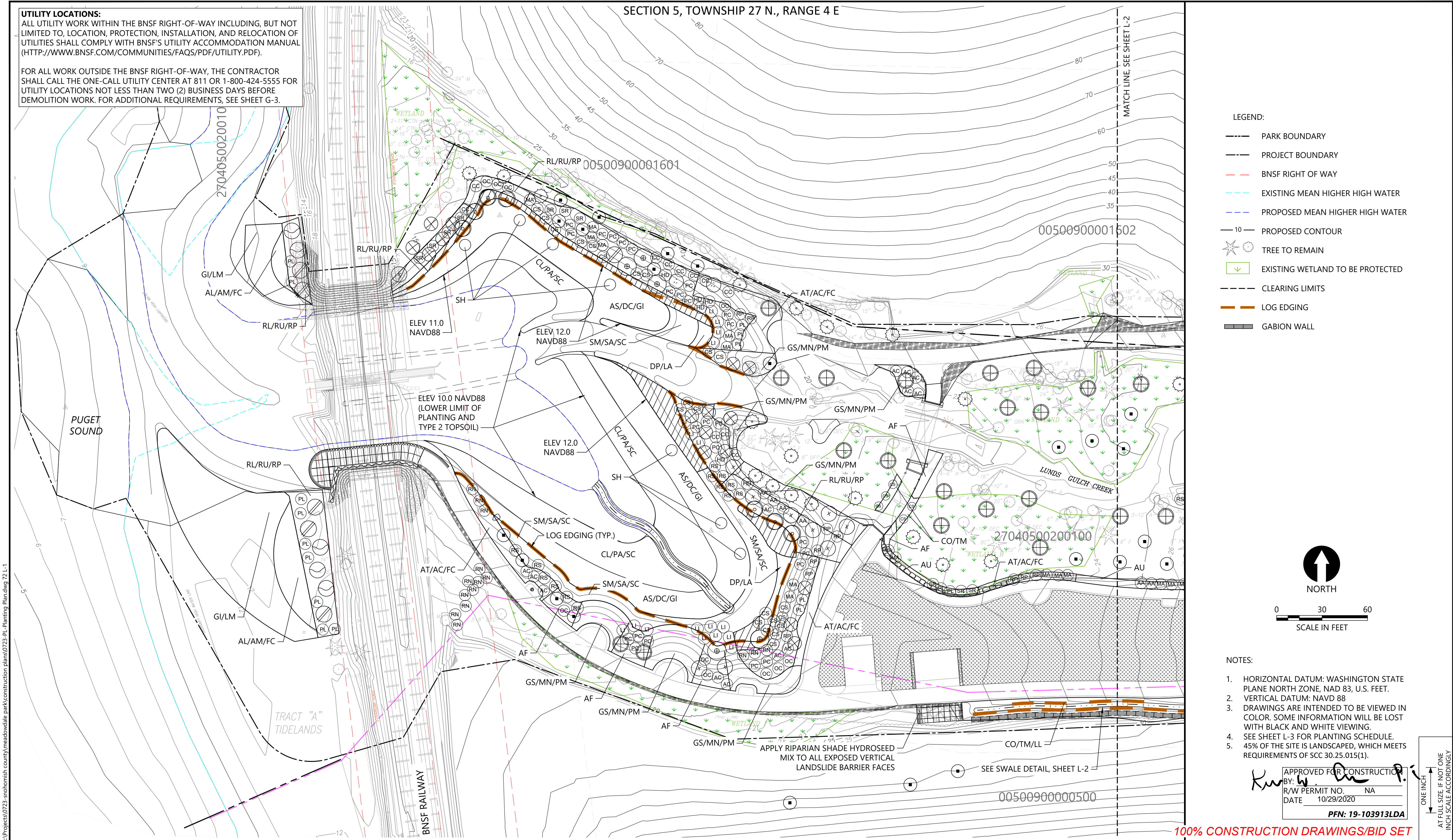
REVISIONS					DESCRIPTION
REV	DATE	BY	APP'D		


DESIGNED BY: WS  
DRAWN BY: WS  
CHECKED BY: PH  
APPROVED BY: PH  
SCALE: AS NOTED  
DATE: SEPTEMBER 2020

MEADOWDALE BEACH PARK  
AND ESTUARY DESIGN  
PFN 19-103913LDA


IRRIGATION DETAILS

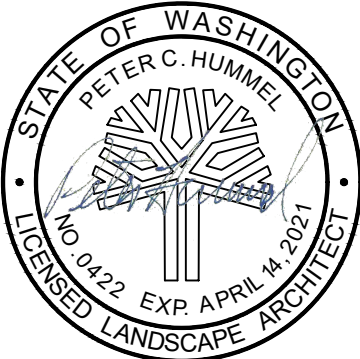






720 Olive Way | Suite 1900 | Seattle, WA 98101





REVISIONS				
REV	DATE	BY	APP'D	DESCRIPTION

DESIGNED BY: PH

DRAWN BY: CH/TG

CHECKED BY: PH

APPROVED BY: PH

SCALE: 1" = 30'

DATE: SEPTEMBER 2020

**MEADOWDALE BEACH PARK AND ESTUARY DESIGN**

PFN 19-103913LDA

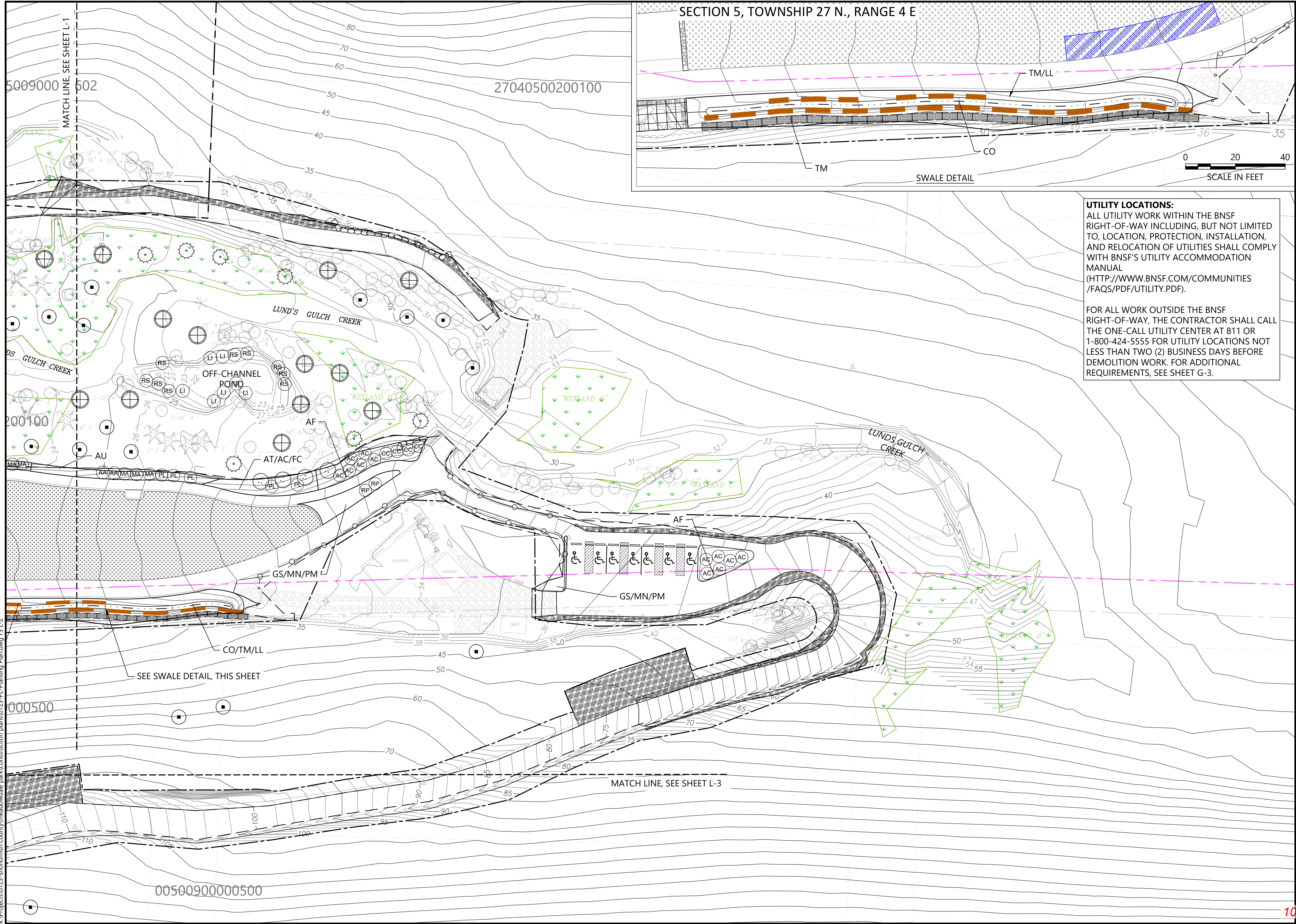
**PLANTING PLAN (1 OF 3)**

**L-1**

SHEET # 75 OF 81

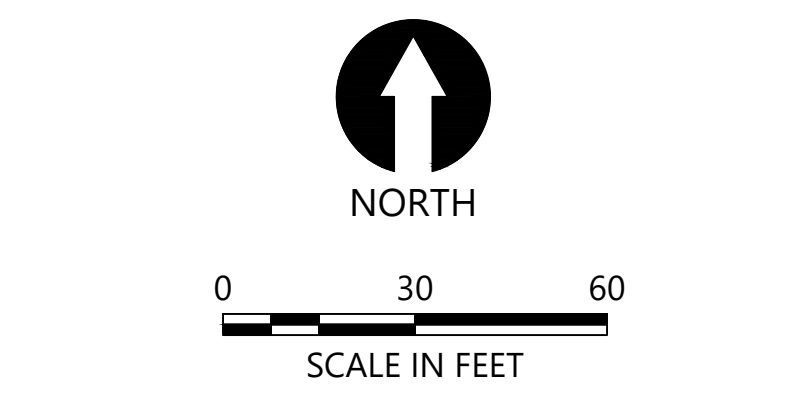
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Sep 15, 2020 9:08am chiewett





- LEGEND:
- PARK BOUNDARY
  - PROJECT BOUNDARY
  - - - BNSF RIGHT OF WAY
  - - - EXISTING MEAN HIGHER HIGH WATER
  - - - PROPOSED MEAN HIGHER HIGH WATER
  - 10 - - - PROPOSED CONTOUR
  - ⊙ TREE TO REMAIN
  - ⬇ EXISTING WETLAND TO BE PROTECTED
  - CLEARING LIMITS
  - LOG EDGING
  - GABION WALL

- PARKING LOT LANDSCAPING NOTES:
1. AREA OF PROPOSED PARKING LOT LANDSCAPING: 922 SF, EXISTING MATURE VEGETATION INCLUDED.
  2. AREA OF PROPOSED PARKING LOT: 3,620 SF.
  3. LANDSCAPED PARKING LOT AREA PERCENTAGE: 25%



- NOTES:
1. HORIZONTAL DATUM: WASHINGTON STATE PLANE NORTH ZONE, NAD 83, U.S. FEET.
  2. VERTICAL DATUM: NAVD 88
  3. DRAWINGS ARE INTENDED TO BE VIEWED IN COLOR. SOME INFORMATION WILL BE LOST WITH BLACK AND WHITE VIEWING.
  4. SEE SHEET L-3 FOR PLANTING SCHEDULE.
  5. CONTRACTOR SHALL PROVIDE CONTINUOUS UTILITY SERVICE AND DRIVEWAY ACCESS TO RANGER RESIDENCE.

APPROVED FOR CONSTRUCTION  
BY: [Signature] R/W PERMIT NO. NA  
DATE: 10/29/2020  
PFN: 19-103913LDA

100% CONSTRUCTION DRAWINGS/BID SET

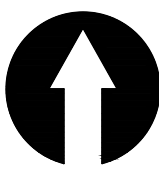
 720 Olive Way   Suite 1900   Seattle, WA 98101			REVISIONS	DESIGNED BY: PH	MEADOWDALE BEACH PARK AND ESTUARY DESIGN PFN 19-103913LDA	L-2																						
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				APPROVED BY: PH																								
				SCALE: AS NOTED																								
				DATE: SEPTEMBER 2020																								



Sep 15, 2020 9:08am chiewett k:\Projects\0723-snohomish-county\meadowdale-park\construction-plans\0723-PL-Planting Plan.dwg 74-L-3

SECTION 5, TOWNSHIP 27 N., RANGE 4 E

MATCH LINE, SEE SHEET L-2



0 30 60  
SCALE IN FEET

NOTES:

1. HORIZONTAL DATUM: WASHINGTON STATE PLANE NORTH ZONE, NAD 83, U.S. FEET.
2. VERTICAL DATUM: NAVD 88
3. DRAWINGS ARE INTENDED TO BE VIEWED IN COLOR. SOME INFORMATION WILL BE LOST WITH BLACK AND WHITE VIEWING.
4. CONTRACTOR SHALL PROVIDE CONTINUOUS UTILITY SERVICE AND DRIVEWAY ACCESS TO RANGER RESIDENCE.


	COMMON NAME	SPECIES NAME	SIZE	SPACING	QUANTITY	COMMENTS	DETAIL
	TREES						
⊕	Black Hawthorn	<i>Crataegus douglasii</i>	5 gal.	as shown	5	Freshwater wetland	1&5 L-4
	Oregon Ash	<i>Fraxinus latifolia</i>	5 gal.	as shown	7	Freshwater wetland	
⊙	Cascara	<i>Rhamnus purshiana</i>	5 gal.	as shown	6	Riparian	
	Sitka Spruce	<i>Picea sitchensis</i>	5 gal.	as shown	25	Riparian and Slope	
⊗	Shore Pine	<i>Pinus contorta</i> var. "contorta"	5 gal.	as shown	10	Riparian	
⊗	Douglas-Fir	<i>Pseudotsuga menziesii</i>	5 gal.	as shown	16	Riparian	
⊗	Hooker Willow	<i>Salix hookeriana</i>	5 gal.	as shown	5	Riparian - Beach side	1&5 L-4
⊗	Scouler Willow	<i>Salix scouleriana</i>	5 gal.	as shown	6	Riparian - Beach side	
⊗	Western Red cedar	<i>Thuja plicata</i>	5 gal.	as shown	40	Riparian and Slope	
⊗	Western Hemlock	<i>Tsuga heterophylla</i>	5 gal.	as shown	30	Riparian and Slope	
	SHRUBS						
⊙	Vine Maple	<i>Acer circinatum</i>	2 gal.	6' O.C.	25	Riparian	1&5 L-4
⊙	Saskatoon Serviceberry	<i>Amelanchier alnifolia</i>	2 gal.	6' O.C.	6	Riparian	
⊙	Redosier Dogwood	<i>Cornus sericea</i>	2 gal.	6' O.C.	27	Riparian and Freshwater wetland	
⊙	Beaked Hazelnut	<i>Corylus cornuta</i>	2 gal.	6' O.C.	15	Riparian	
⊙	Oceanspray	<i>Holodiscus discolor</i>	2 gal.	6' O.C.	6	Riparian	
⊙	Black Twinberry	<i>Lonicera involucrata</i>	5 gal.	6' O.C.	24	Riparian and Freshwater wetland	1&5 L-4
⊙	Tall Oregon Grape	<i>Mahonia aquifolium</i>	2 gal.	6' O.C.	16	Riparian	
⊙	Indian Plum	<i>Oemleria cerasiformis</i>	2 gal.	6' O.C.	10	Riparian	
⊙	Mock Orange	<i>Philadelphus lewisii</i>	2 gal.	6' O.C.	21	Riparian	
⊙	Pacific Ninebark	<i>Physocarpus capitatus</i>	2 gal.	6' O.C.	25	Riparian	
⊙	Nootka Rose	<i>Rosa nutkana</i>	2 gal.	6' O.C.	15	Riparian	3&5 L-4
⊙	Thimbleberry	<i>Rubus parviflorus</i>	2 gal.	6' O.C.	13	Riparian	
⊙	Salmonberry	<i>Rubus spectabilis</i>	5 gal.	6' O.C.	22	Riparian and Freshwater wetland	
⊙	Red Elderberry	<i>Sambucus racemosa</i>	2 gal.	6' O.C.	10	Riparian	
	GROUNDCOVERS						
⊙	Vanilla-leaf	<i>Achlys triphylla</i>	1 gal.	4' O.C.	89	Riparian	3&5 L-4
⊙	Kinnickinnick	<i>Arctostaphylos uva-ursi</i>	1 gal.	4' O.C.	66	Riparian	
⊙	Wild Ginger	<i>Asarum caudatum</i>	1 gal.	4' O.C.	89	Riparian	
⊙	Lady fern	<i>Athyrium felix femina</i>	1 gal.	4' O.C.	209	Riparian	
⊙	Common strawberry	<i>Fragaria chileonsis</i>	1 gal.	4' O.C.	89	Riparian	
⊙	Salal	<i>Gaultheria shallon</i>	1 gal.	4' O.C.	70	Riparian	
⊙	Low Oregon Grape	<i>Mahonia nervosa</i>	1 gal.	4' O.C.	70	Riparian	
⊙	Swordfern	<i>Polystichum munitum</i>	1 gal.	4' O.C.	70	Riparian	
⊙	Trailing black currant	<i>Ribes laxiflorum</i>	1 gal.	4' O.C.	107	Riparian	
⊙	Dwarf bramble	<i>Rubus lasiococcus</i>	1 gal.	4' O.C.	107	Riparian	
⊙	Strawberry bramble	<i>Rubus pedatus</i>	1 gal.	4' O.C.	107	Riparian	

COMMON NAME	SPECIES NAME	SIZE	SPACING	QUANTITY	COMMENTS	DETAIL
LIVESTAKES						
Hooker Willow	<i>Salix hookeriana</i>	livestake	3' O.C.	168	Low riparian	2&5 L-4
Scouler Willow	<i>Salix scouleriana</i>	livestake	3' O.C.	168	Low riparian	
WETLAND GRASSES AND HERBACEOUS PERENNIALS						
CO Slough Sedge	<i>Carex obnupta</i>	10-in plug	2' O.C.	134	Freshwater wetland, swale	4&5 L-4
DP Darkthroat shooting star	<i>Dodecatheon pulchellum</i>	10-in plug	2' O.C.	36	Freshwater wetland	
LL Broadleaf Lupine	<i>Lupinus latifolius</i>	10-in plug	2' O.C.	118	Swale	
LA Skunk Cabbage	<i>Lysichiton americanus</i>	10-in plug	2' O.C.	36	Freshwater wetland	
SM Small fruited Bulrush	<i>Scirpus microcarpus</i>	10-in plug	2' O.C.	160	Freshwater wetland	
SA Hardstem Bulrush	<i>Schoenoplectus acutus</i>	10-in plug	2' O.C.	160	Freshwater wetland	4&5 L-4
SC American Three-square	<i>Scirpus americanus</i>	10-in plug	2' O.C.	160	Freshwater wetland	
TM Piggy-back plant	<i>Tolmiea menziesii</i>	10-in plug	2' O.C.	134	Freshwater wetland, swale	
AS Douglas Aster	<i>Aster subspicatus</i>	10-in plug	2' O.C.	405	Tidal marsh	
CL Lyngby's Sedge	<i>Carex lyngbyei</i>	10-in plug	2' O.C.	372	Tidal marsh	
DC Tufted Hairgrass	<i>Deschampsia cespitosa</i>	10-in plug	2' O.C.	405	Tidal marsh	5 L-4
PA Pacific Silverweed	<i>Potentilla anserina</i> ssp. <i>Pacifica</i>	10-in plug	2' O.C.	372	Tidal marsh	
SC American Three-square	<i>Scirpus americanus</i>	10-in plug	2' O.C.	160	Tidal marsh	
SH Henderson's Checker-bloom	<i>Sidalcea hendersonii</i>	10-in plug	2' O.C.	40	Tidal marsh	
AL Coastal sand verbena	<i>Abronia latifolia</i>	10-in plug	2' O.C.	61	Backshore beach	
AM Sea thrift	<i>Armeria maritima</i>	10-in plug	2' O.C.	61	Backshore beach	5 L-4
FC Coastal Strawberry	<i>Fragaria chiloensis</i>	10-in plug	2' O.C.	61	Backshore beach	
GI Puget Sound Gumweed	<i>Grindelia integrifolia</i>	1 gal.	2' O.C.	848	Backshore beach	
LM Dunegrass	<i>Leymus mollis</i>	1 gal.	2' O.C.	444	Backshore beach	
LAWN HYDROSEED	See Specifications	Hydroseed Mix				
RIPARIAN SHADE SEED MIX	See Specifications	Hydroseed Mix			Landslide Barrier and Upland Slopes along paths, roads and parking where adjacent soils are disturbed by construction	

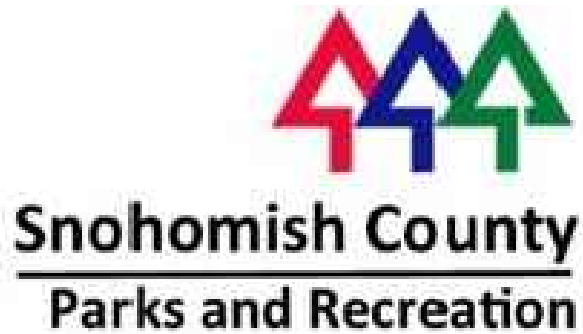
UTILITY LOCATIONS:

ALL UTILITY WORK WITHIN THE BNSF RIGHT-OF-WAY INCLUDING, BUT NOT LIMITED TO, LOCATION, PROTECTION, INSTALLATION, AND RELOCATION OF UTILITIES SHALL COMPLY WITH BNSF'S UTILITY ACCOMMODATION MANUAL ([HTTP://WWW.BNSF.COM/COMMUNITIES/FAQS/PDF/UTILITY.PDF](http://www.bnsf.com/communities/faqs/pdf/utility.pdf)).

FOR ALL WORK OUTSIDE THE BNSF RIGHT-OF-WAY, THE CONTRACTOR SHALL CALL THE ONE-CALL UTILITY CENTER AT 811 OR 1-800-424-5555 FOR UTILITY LOCATIONS NOT LESS THAN TWO (2) BUSINESS DAYS BEFORE DEMOLITION WORK. FOR ADDITIONAL REQUIREMENTS, SEE SHEET G-3.

APPROVED FOR CONSTRUCTION  
BY:   
R/W PERMIT NO. NA  
DATE 10/29/2020  
PFN: 19-103913LDA

100% CONSTRUCTION DRAWINGS/BID SET



REVISIONS					
REV	DATE	BY	APP'D	DESCRIPTION	

DESIGNED BY: PH  
DRAWN BY: CH/TG  
CHECKED BY: PH  
APPROVED BY: PH  
SCALE: 1" = 30'  
DATE: SEPTEMBER 2020

MEADOWDALE BEACH PARK  
AND ESTUARY DESIGN  
PFN 19-103913LDA

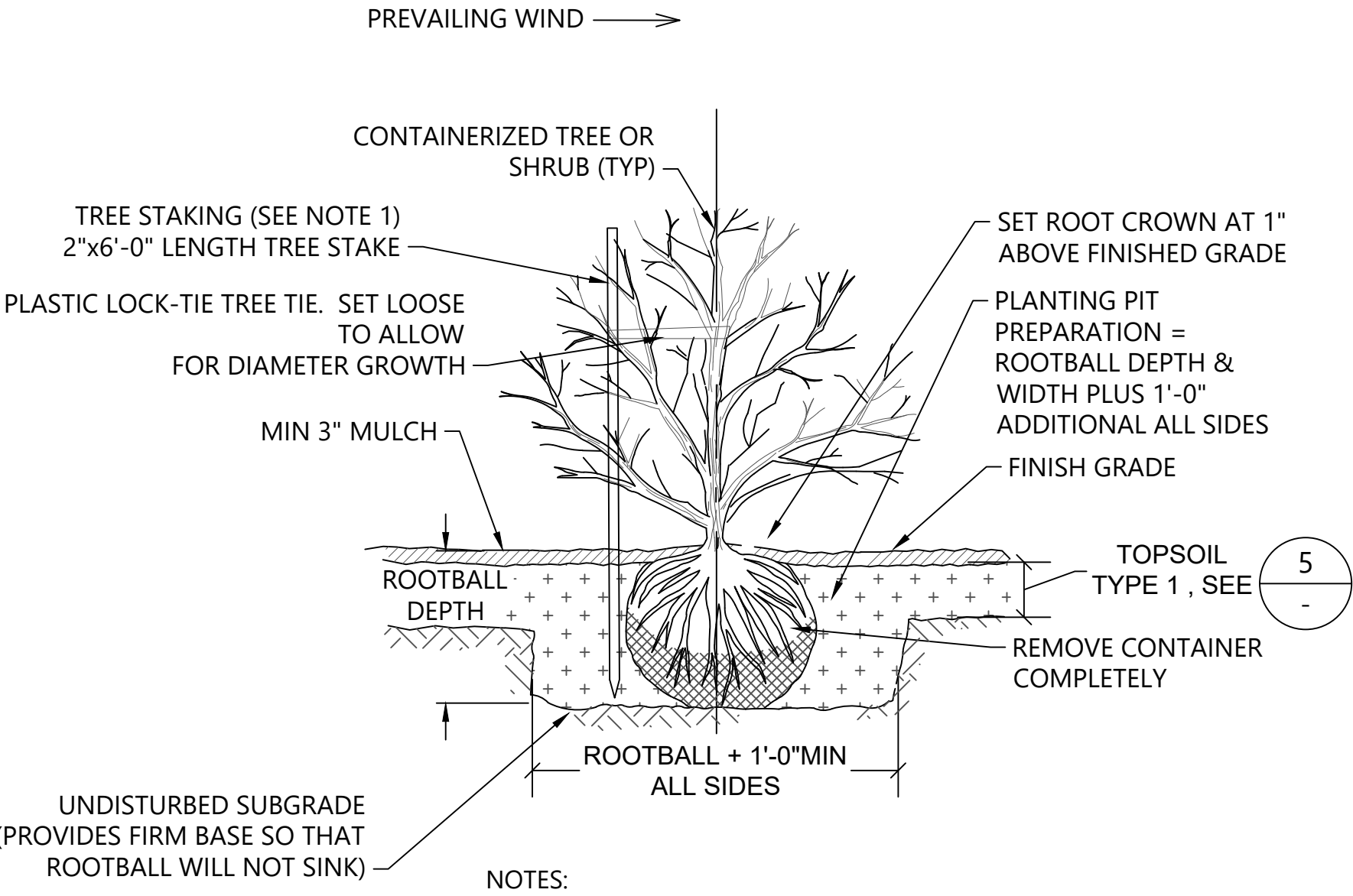
PLANTING PLAN (3 OF 3)

L-3

SHEET # 77 OF 81

ONE INCH  
↑  
AT FULL SIZE, IF NOT ONE  
INCH SCALE ACCORDINGLY  
↓

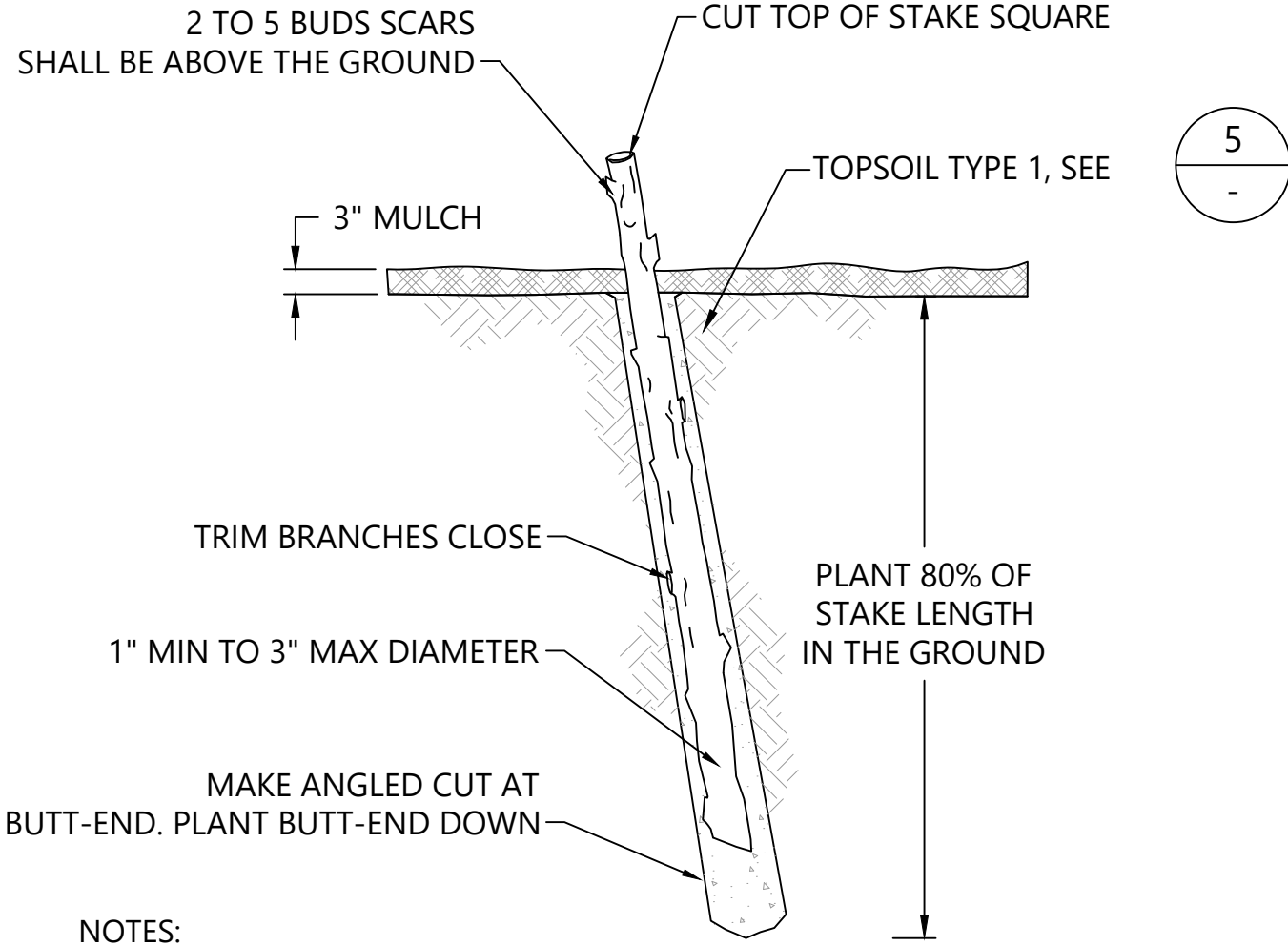




NOTES:

1. STAKE ALL TREES 4 FT & TALLER

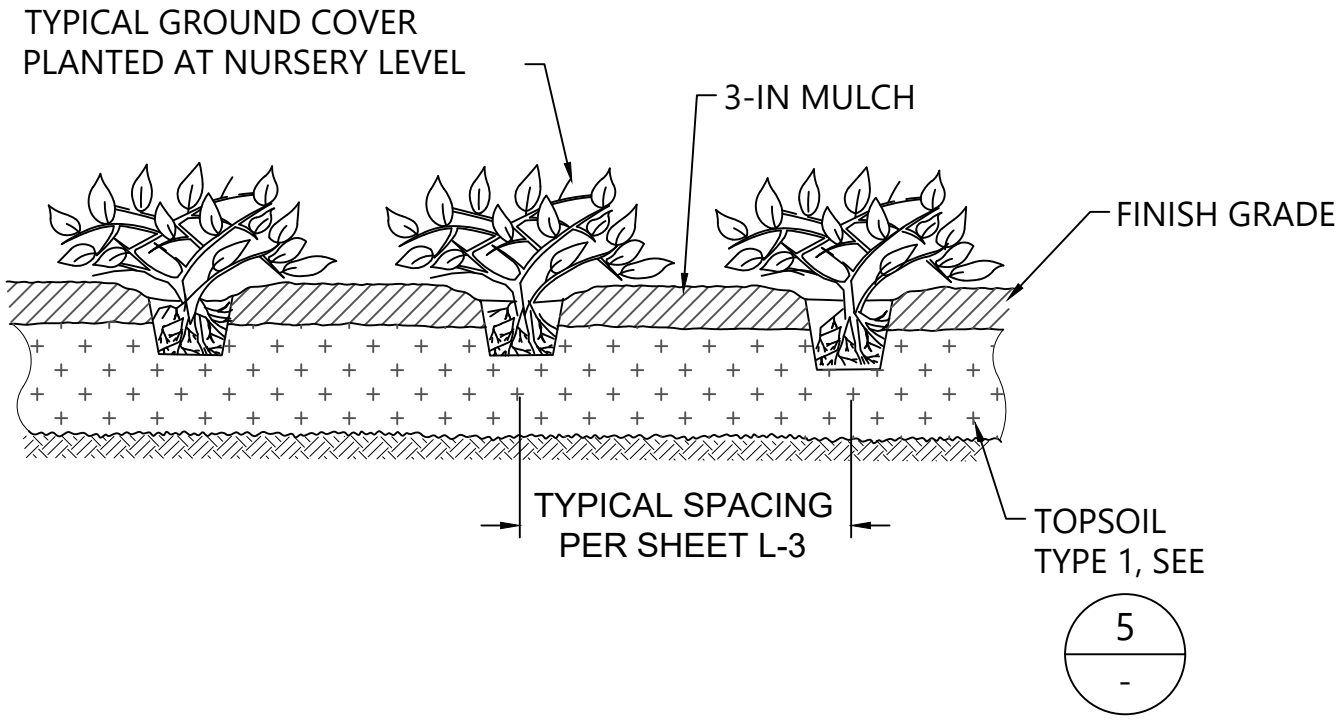
1 CONTAINER TREE OR SHRUB  
L-1&2 SCALE:NTS



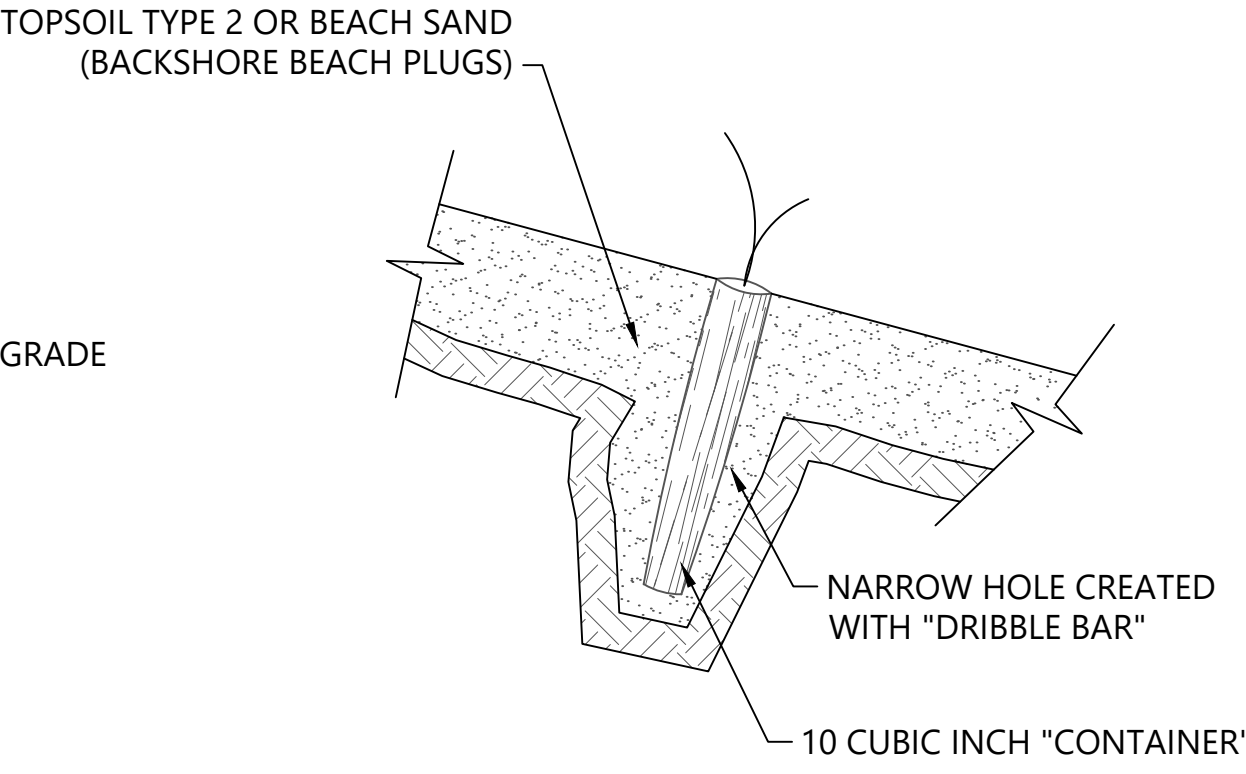
NOTES:

1. HARVEST AND PLANT STAKES DURING THE DORMANT SEASON.  
2. MAKE CLEAN CUTS AND DO NOT DAMAGE STAKES OR SPLIT ENDS DURING INSTALLATION, USE A PILOT BAR IN FIRM SOILS.  
3. SOAK CUTTINGS CONTINUOUSLY PRIOR TO INSTALLATION.  
4. TAMP THE SOIL AROUND THE STAKE.  
5. ONLY NURSERY GROWN STOCK SHALL BE USED. HARVESTING OF WILD PLANTS IS NOT ACCEPTABLE.  
6. USE EQUAL NUMBER AND EVEN DISTRIBUTION OF EACH WILLOW SPECIES.

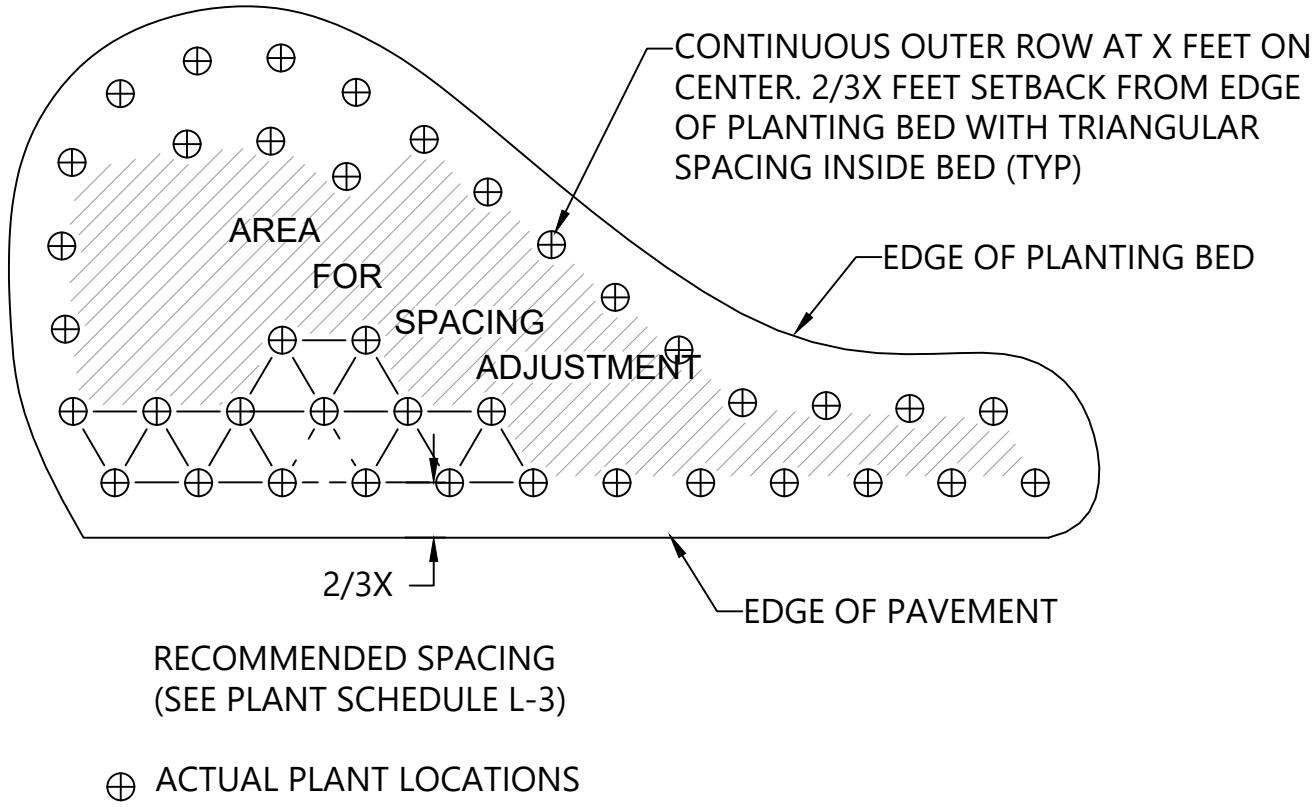
2 LIVESTAKE  
L-1&2 SCALE:NTS



3 GROUNDCOVER  
L-1&2 SCALE:NTS



4 EMERGENT PLUG  
L-1&2 SCALE:NTS



5 PLANT SPACING  
L-3 SCALE:NTS

APPROVED FOR CONSTRUCTION  
BY: [Signature]  
R/W PERMIT NO. NA  
DATE 10/29/2020  
PFN: 19-103913LDA

100% CONSTRUCTION DRAWINGS/BID SET

REVISIONS				
REV	DATE	BY	APP'D	DESCRIPTION

DESIGNED BY: PH  
DRAWN BY: CH/TG  
CHECKED BY: PH  
APPROVED BY: PH  
SCALE: AS NOTED  
DATE: SEPTEMBER 2020