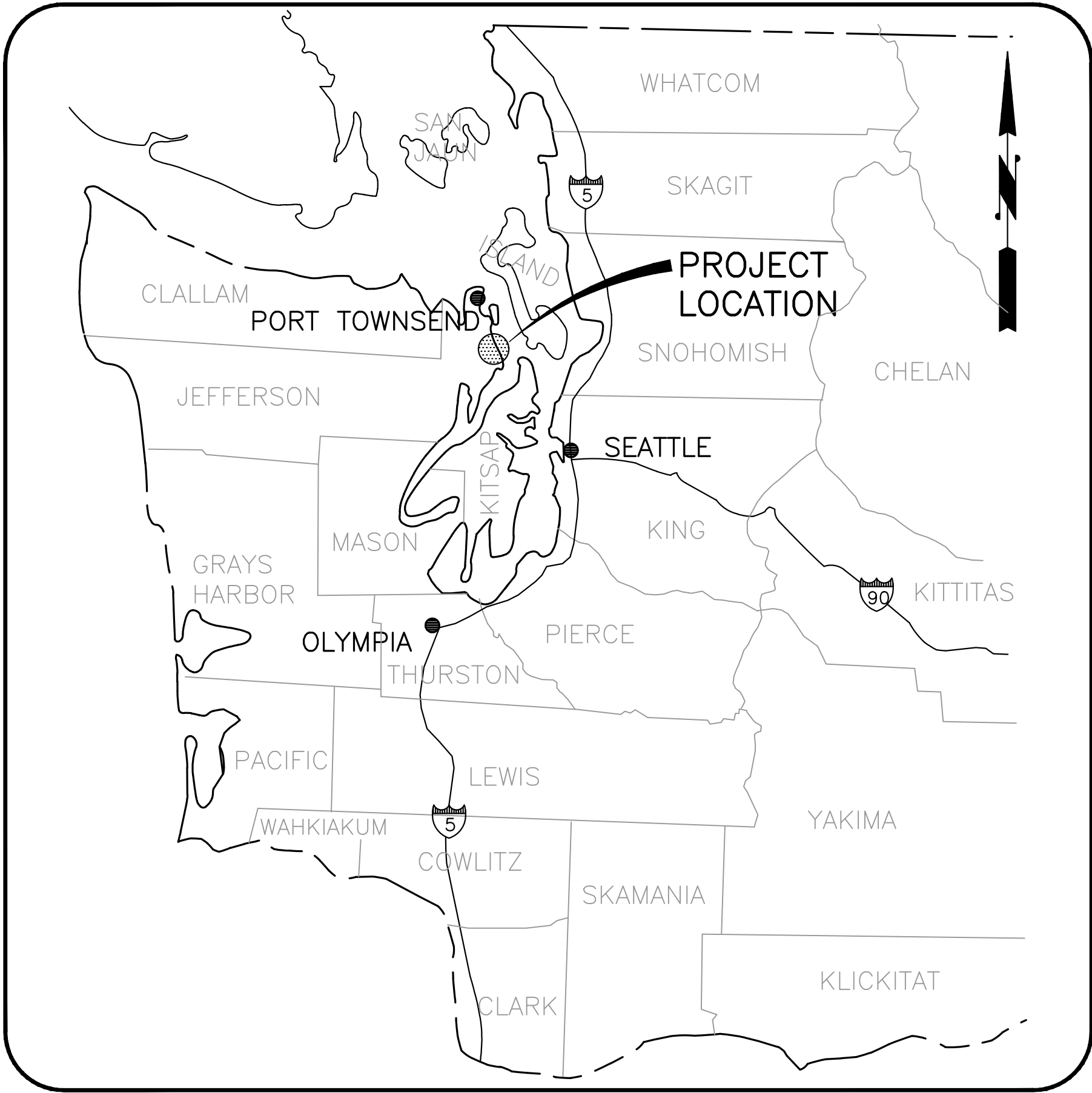


PORT LUDLOW DRAINAGE DISTRICT TRADER LANE DRAINAGE IMPROVEMENT PROJECT

CONSTRUCTION PLANS



VICINITY MAP

NOT TO SCALE

PROJECT LOCATION: SECTION 9, TOWNSHIP 28 N,
RANGE 1 E, JEFFERSON COUNTY, WASHINGTON

PROJECT PROPONENT/APPLICANT

PORT LUDLOW DRAINAGE DISTRICT
CONTACT: DWAYNE WILCOX
PHONE: (360) 437-5056

ENGINEERING CONSULTANT

GRAY & OSBORNE, INC.
701 DEXTER AVENUE NORTH, SUITE 200
SEATTLE, WASHINGTON 98109

CONTACT: NANCY LOCKETT, P.E.
PHONE: (206) 284-0860

LIST OF DRAWINGS

<u>SHEET</u>	<u>DESCRIPTION</u>
COVER	VICINITY MAP AND SHEET INDEX
1	SYMBOL LEGEND, T.E.S.C. NOTES AND CONSTRUCTION SEQUENCE
2	PROPOSED SITE PLAN
3	DRAINAGE DETAILS
4	T.E.S.C. DETAILS

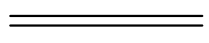
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SYMBOL LEGEND

EXISTING

PROPOSED

DESCRIPTION



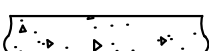
CURB & GUTTER



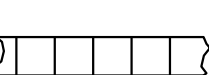
ASPHALT PAVEMENT



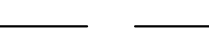
GRAVEL SURFACING



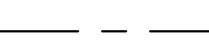
CONCRETE SURFACING



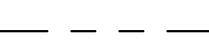
CONCRETE SIDEWALK



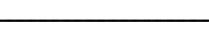
RIGHT-OF-WAY LINE



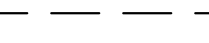
CENTERLINE OF ROADWAY



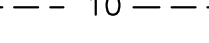
PROPERTY LINE



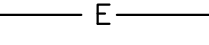
PERMANENT EASEMENT LINE



TEMPORARY EASEMENT LINE



CONTOUR LINE



BURIED ELECTRICAL



BURIED TELEPHONE



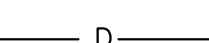
WATER MAIN (SIZE AS NOTED)



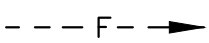
GAS MAIN



IRRIGATION LINE



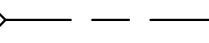
SANITARY SEWER



STORM DRAIN (SIZE AS NOTED)



SANITARY SEWER FORCE MAIN



DITCH



CULVERT (SIZE & TYPE AS NOTED)



FENCE (TYPE AS NOTED)



FENCE (WITH GATE)



POWER VAULT



TELEPHONE VAULT



TELEPHONE MANHOLE



MANHOLE OR DRYWELL (AS NOTED)



CLEANOUT



TYPE 1 CATCH BASIN OR CURB INLET



TYPE 2 CATCH BASIN



POLE WITH GUY WIRE



POWER / TELEPHONE / GUY POLE



LUMINAIRE



YARD LIGHT



JUNCTION BOX (AS NOTED)



GATE VALVE



BUTTERFLY VALVE



WATER METER



FIRE HYDRANT



REDUCER



THRUST BLOCK



TRANSITION COUPLING OR
FLANGE COUPLING ADAPTER



CAP/PLUG



BLOW-OFF



WELL

EXISTING

PROPOSED

DESCRIPTION



MAIL BOX (NOTED)



SIGN



RIP RAP



EMBANKMENT



TREE (CONIFER)



TREE (DECIDUOUS)



SHRUBS



WET LANDS



BUILDINGS



ROCK WALL



ELEVATION POINT



MONUMENT



BORING AND TEST PIT LOCATIONS



SECTION CORNER



1/4 CORNER



ANGLE POINT / CONTROL POINT



BENCH MARK



OWNERSHIP TIE



DETAIL NUMBER



REFERENCE SHEET

SURVEY DATA

Horizontal Datum:	NAD83[91]
Vertical Datum:	NAVD88

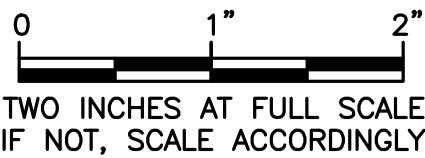
NOTE: THIS INFORMATION SHOULD BE SHOWN ON THE PLANS, AND ALL MONUMENTS IN THE PROJECT AREA SHOULD BE CALLED OUT IN THE PLAN VIEW				
POINT	NORTHING	EASTING	Elev.	DESCRIPTION
133	345081.48	1185322.95	277.70	MAG NAIL/TAG "G&O CONTROL", 1' W. OF E. EP RESOLUTE LN., 5' S. OF CL D/WAY HSE#150
134	345156.56	1185071.99	285.59	MAG NAIL/TAG "G&O CONTROL", ACROSS ST. FROM W'LY D/WAY HSE#122, 0.5' S. OF N. EP RESOLUTE LN
142	346297.41	1184950.27	315.04	CASED CONC. MON W/ 1 3/4" BRASSY W/ PUNCH DOWN 0.55' NW OF C/L FORESTER LN @ BTMD/WAY HSE#14
143	346391.37	1185028.12	309.70	CASED CONC. MON W/ 1 3/4" BRASSY W/ PUNCH DOWN 0.6' INTXFORESTER LN & FLEET DR.
144	346140.61	1185181.83	299.21	CASED CONC. MON W/ 1 3/4" BRASSY W/ PUNCH DOWN 0.4' 90' NW FROM INTXTRADER LN & FLEET DR.
145	346103.07	1185247.04	297.98	CASED CONC. MON W/ 1 3/4" BRASSY W/ PUNCH DOWN 0.2' INTXFLEET DR & TRADER LN
146	345990.64	1185132.47	298.81	MAG NAIL/TAG "G&O CONTROL", 0.5' SE FROM NW EP @ END OF CUL-DE-SAC TRADER LN, 10' SW OF SW COR D/WAY HSE#10
147	345982.75	1185003.03	315.56	HUB/TACK 5' SSE FROM 40" CEDAR TREE ON SMALL CLEAR GROUND TOP
148	345977.71	1184926.74	320.34	1/2" REBAR/YELLOW CAP "M.J ANDERSON PLS 27665" IN WOODS, S. COR LOT 143
149	346010.11	1184851.20	323.69	HUB/TACK ON S. SIDE OF POND
150	346055.62	1184778.31	322.81	HUB/TACK N. EDGE OF POND, 5' S. OF 18" ALDER
151	345830.87	1184894.13	321.46	MAG NAIL/TAG "G&O CONTROL", 0.5' N. OF N. FOGLINE SWANSONVILLE RD, W. OF RESOLUTE LN.
152	345707.91	1185024.14	307.91	MAG NAIL/TAG "G&O CONTROL", 2' NE FROM EP ON SW COR SWANSONVILLE RD & RESOLUTE LN, 9.5' NLY OF PWR TRANSFORMER
153	345500.70	1185032.98	300.98	MAG NAIL/TAG "G&O CONTROL", 2' W. OF E. EP RESOLUTE LN, 13.5' S. OF S. SIDE D/WAY HSE#31
154	345272.59	1185024.14	291.16	MAG NAIL/TAG "G&O CONTROL", 1' E. OF W. EP RESOLUTE LN, 18' S. OF SWR MH

STANDARD EROSION AND SEDIMENT CONTROL (ESC) PLAN NOTES

- APPROVAL OF THIS EROSION AND SEDIMENTATION CONTROL (ESC) PLAN DOES NOT CONSTITUTE AN APPROVAL OF PERMANENT ROAD OR DRAINAGE DESIGN (E.G., SIZE AND LOCATION OF ROADS, PIPES, RESTRICTORS, CHANNELS, RETENTION FACILITIES, UTILITIES, ETC.).
- THE IMPLEMENTATION OF THESE ESC PLANS AND THE CONSTRUCTION, MAINTENANCE, REPLACEMENT, AND UPGRADING OF THESE ESC FACILITIES IS THE RESPONSIBILITY OF THE CONTRACTOR UNTIL ALL CONSTRUCTION IS APPROVED.
- THE BOUNDARIES OF THE CLEARING LIMITS SHOWN ON THIS PLAN SHALL BE CLEARLY FLAGGED BY A CONTINUOUS LENGTH OF SURVEY TAPE (OR FENCING, IF REQUIRED) PRIOR TO CONSTRUCTION. DURING THE CONSTRUCTION PERIOD, NO DISTURBANCE BEYOND THE CLEARING LIMITS SHALL BE PERMITTED. THE CLEARING LIMITS SHALL BE MAINTAINED BY THE CONTRACTOR FOR THE DURATION OF CONSTRUCTION.
- THE ESC FACILITIES SHOWN ON THIS PLAN MUST BE CONSTRUCTED PRIOR TO OR IN CONJUNCTION WITH ALL CLEARING AND GRADING SO AS TO ENSURE THAT THE TRANSPORT OF SEDIMENT TO SURFACE WATERS, DRAINAGE SYSTEMS, AND ADJACENT PROPERTIES IS MINIMIZED.
- THE ESC FACILITIES SHOWN ON THIS PLAN ARE THE MINIMUM REQUIREMENTS FOR ANTICIPATED SITE CONDITIONS. DURING THE CONSTRUCTION PERIOD, THESE ESC FACILITIES SHALL BE UPGRADED AS NEEDED FOR UNEXPECTED STORM EVENTS AND MODIFIED TO ACCOUNT FOR CHANGING SITE CONDITIONS (E.G., ADDITIONAL SUMP PUMPS, RELOCATION OF DITCHES AND SILT FENCES, ETC.).
- THE ESC FACILITIES SHALL BE INSPECTED DAILY BY THE CONTRACTOR AND MAINTAINED TO ENSURE CONTINUED PROPER FUNCTIONING. WRITTEN RECORDS SHALL BE KEPT OF WEEKLY REVIEWS OF THE ESC FACILITIES DURING THE WET SEASON (OCT. 1 TO APRIL 30) AND OF MONTHLY REVIEWS DURING THE DRY SEASON (MAY 1 TO SEPT. 30).
- ANY AREAS OF EXPOSED SOILS, INCLUDING ROADWAY EMBANKMENTS, THAT WILL NOT BE DISTURBED FOR TWO DAYS DURING THE WET SEASON OR SEVEN DAYS DURING THE DRY SEASON SHALL BE IMMEDIATELY STABILIZED WITH THE APPROVED ESC METHODS (E.G., SEEDING, MULCHING, PLASTIC COVERING, ETC.).
- ANY AREA NEEDING ESC MEASURES THAT DO NOT REQUIRE IMMEDIATE ATTENTION SHALL BE ADDRESSED WITHIN FIFTEEN (15) DAYS.
- THE ESC FACILITIES ON INACTIVE SITES SHALL BE INSPECTED AND MAINTAINED A MINIMUM OF ONCE A MONTH OR WITHIN FORTY EIGHT (48) HOURS FOLLOWING A STORM EVENT.
- AT NO TIME SHALL MORE THAN ONE (1) FOOT OF SEDIMENT BE ALLOWED TO ACCUMULATE WITHIN A CATCH BASIN. ALL CATCH BASINS AND CONVEYANCE LINES SHALL BE CLEANED PRIOR TO PAVING. THE CLEANING OPERATION SHALL NOT FLUSH SEDIMENT-LADEN WATER INTO THE DOWNSTREAM SYSTEM.
- WHERE STRAW MULCH FOR TEMPORARY EROSION CONTROL IS REQUIRED, IT SHALL BE APPLIED AT A MINIMUM THICKNESS OF 3 INCHES.
- PRIOR TO BEGINNING OF THE WET SEASON (OCT. 1), ALL DISTURBED AREAS SHALL BE REVIEWED TO IDENTIFY WHICH ONES CAN BE SEEDED IN PREPARATION FOR THE WINTER RAINS. DISTURBED AREAS SHALL BE SEEDED WITHIN ONE WEEK OF THE BEGINNING OF THE WET SEASON. A SKETCH MAP OF THOSE AREAS TO BE SEEDED AND IN THOSE AREAS TO REMAIN UNCOVERED SHALL BE SUBMITTED TO THE INSPECTOR. THE INSPECTOR CAN REQUIRE SEEDING OF ADDITIONAL AREAS IN ORDER TO PROTECT SURFACE WATERS, ADJACENT PROPERTIES, OR DRAINAGE FACILITIES.

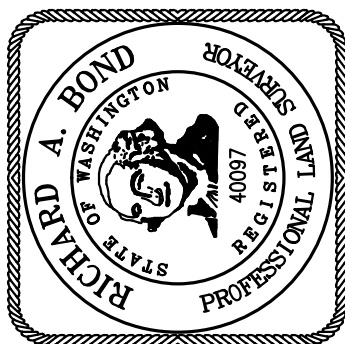
CONSTRUCTION SEQUENCE

- A DETAILED CONSTRUCTION SEQUENCE IS NEEDED TO ENSURE THAT EROSION AND SEDIMENT CONTROL MEASURES ARE APPLIED AT THE APPROPRIATE TIMES. A RECOMMENDED CONSTRUCTION SEQUENCE IS PROVIDED BELOW:
- HOLD THE PRE-CONSTRUCTION MEETING.
 - FLAG OR FENCE CLEARING LIMITS.
 - INSTALL PERIMETER PROTECTION (FILTER FENCE, BRUSH BARRIER, ETC.).
 - CONSTRUCT SURFACE WATER CONTROLS (INTERCEPTOR DIKES, PIPE SLOPE DRAINS, ETC.) SIMULTANEOUSLY WITH CLEARING AND GRADING FOR PROJECT DEVELOPMENT.
 - MAINTAIN EROSION CONTROL MEASURES IN ACCORDANCE WITH JEFFERSON COUNTY STANDARDS AND MANUFACTURER'S RECOMMENDATIONS.
 - RELOCATE SURFACE WATER CONTROLS OR EROSION CONTROL MEASURES, OR INSTALL NEW MEASURES SO THAT AS SITE CONDITIONS CHANGE, THE EROSION AND SEDIMENTATION CONTROL IS ALWAYS IN ACCORDANCE WITH THE JEFFERSON COUNTY EROSION AND SEDIMENT CONTROL STANDARDS.
 - COVER ALL AREAS THAT WILL BE UNWORKED FOR MORE THAN SEVEN DAYS DURING THE DRY SEASON OR TWO DAYS DURING THE WET SEASON WITH STRAW, WOOD FIBER MULCH, COMPOST, PLASTIC SHEETING, OR EQUIVALENT.
 - STABILIZE ALL AREAS WITHIN SEVEN DAYS OF REACHING FINAL GRADE.
 - SEED ANY AREAS TO REMAIN UNWORKED FOR MORE THAN 30 DAYS.
 - UPON COMPLETION OF THE PROJECT, STABILIZE ALL DISTURBED AREAS AND REMOVE BMPS IF APPROPRIATE.



DATE:	JAN 2015
SCALE:	NONE
DRAWN:	P.G.M.
CHECKED:	N.E.L.
APPROVED:	N.E.L.

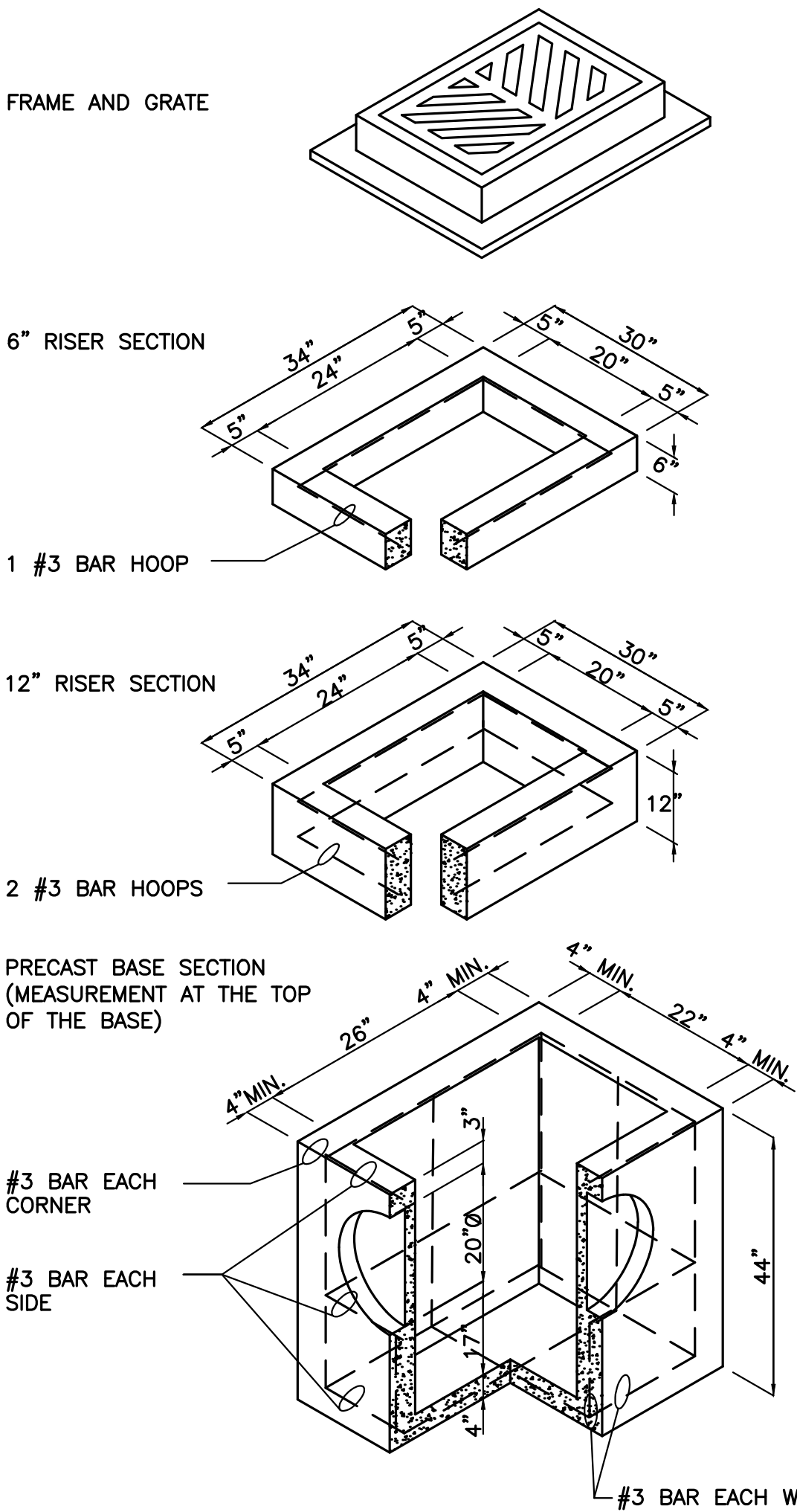
	APPD
	DATE
	REVISION
	No.



PORT LUDLOW DRAINAGE DISTRICT
JEFFERSON COUNTY WASHINGTON
TRADER LANE
DRAINAGE IMPROVEMENT PROJECT
SYMBOL LEGEND, T.E.S.C. NOTES AND
CONSTRUCTION SEQUENCE

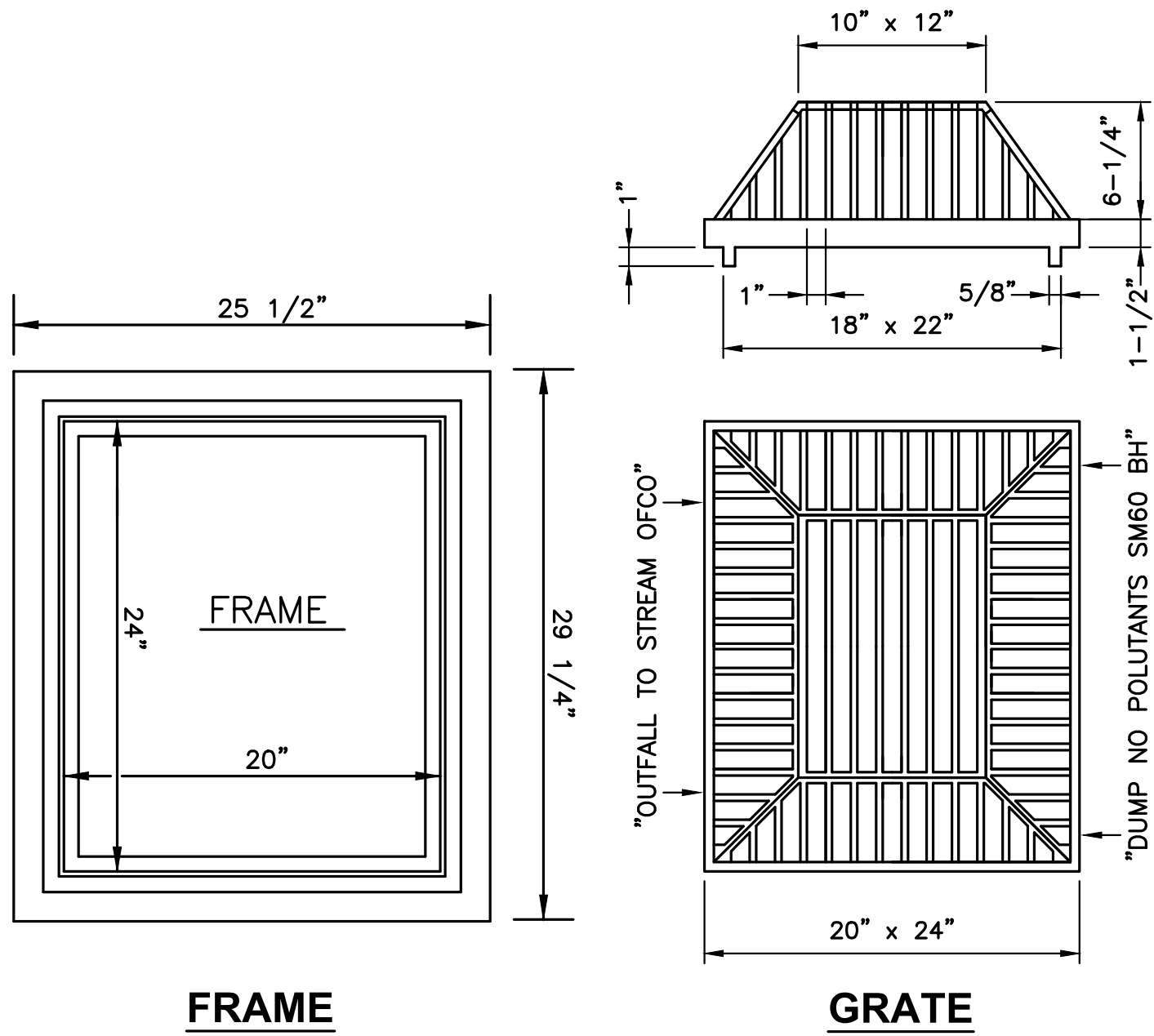
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OF:	4
JOB NO.:	11520.00
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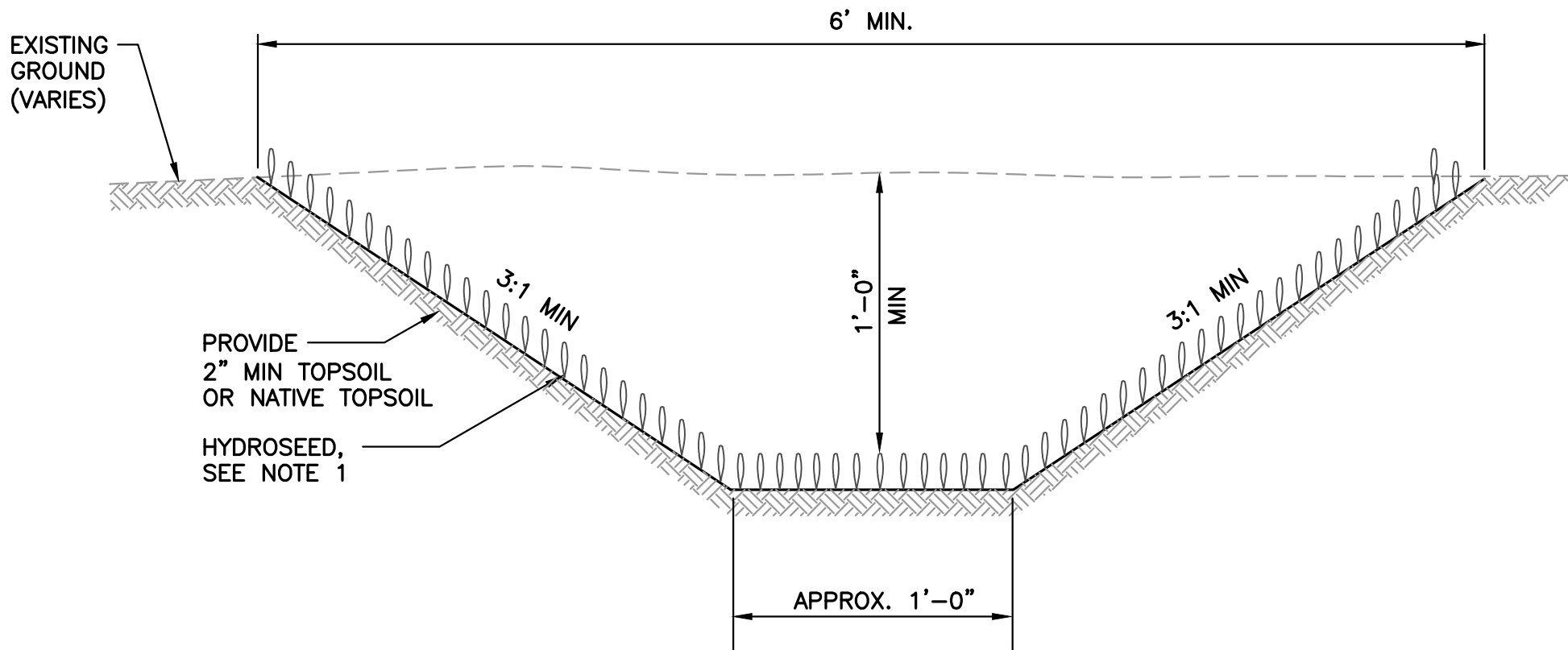


- NOTES:**
- CATCH BASINS SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 7-05 WSDOT/APWA STANDARD SPECIFICATIONS, UNLESS OTHERWISE SHOWN ON PLANS.
 - AS AN ACCEPTABLE ALTERNATIVE TO REBAR, WELDED WIRE FABRIC HAVING A MIN. AREA OF 0.12 SQUARE INCHES PER FOOT MAY BE USED. WELDED WIRE FABRIC SHALL COMPLY TO ASTM A497 (AASHTO M 221). WIRE FABRIC SHALL NOT BE PLACED IN KNOCKOUTS.
 - ALL REINFORCED CAST-IN-PLACE CONCRETE SHALL BE CLASS 4000.
 - PRECAST BASES SHALL BE FURNISHED WITH CUTOUTS OR KNOCKOUTS. KNOCKOUTS SHALL HAVE A WALL THICKNESS OF 2" MIN. ALL PIPE SHALL BE INSTALLED IN FACTORY PROVIDED KNOCKOUTS. UNUSED KNOCKOUTS NEED NOT BE GROUTED IF WALL IS LEFT INTACT.
 - KNOCKOUT OR CUTOUT HOLE SIZE IS EQUAL TO PIPE OUTER DIAM. PLUS CATCH BASIN WALL THICKNESS.
 - ROUND KNOCKOUTS MAY BE ON ALL 4 SIDES, WITH MAX. DIAM. OF 20". KNOCKOUTS MAY BE EITHER ROUND OR "D" SHAPE.
 - THE MAX. DEPTH FROM THE FINISHED GRADE TO THE PIPE INVERT IS 5'-0".
 - THE TAPER ON THE SIDES OF THE PRECAST BASE SECTION AND RISER SECTION SHALL NOT EXCEED 1/2"/FT.
 - CATCH BASIN FRAME AND GRATE SHALL BE IN ACCORDANCE WITH STANDARD SPECIFICATIONS AND MEET THE STRENGTH REQUIREMENTS OF FEDERAL SPECIFICATION RR-F-62ID. MATING SURFACES SHALL BE FINISHED TO ASSURE NON-ROCKING FIT WITH ANY COVER POSITION.
 - FRAME AND GRATE MAY BE INSTALLED WITH FLANGE DOWN OR CAST INTO RISER.
 - EDGE OF RISER OR BRICK SHALL NOT BE MORE THAN 2" FROM VERTICAL EDGE OF CATCH BASIN WALL.

1
-
CATCH BASIN TYPE 1
NOT TO SCALE



4
-
CATCH BASIN FRAME AND GRATE
NOT TO SCALE

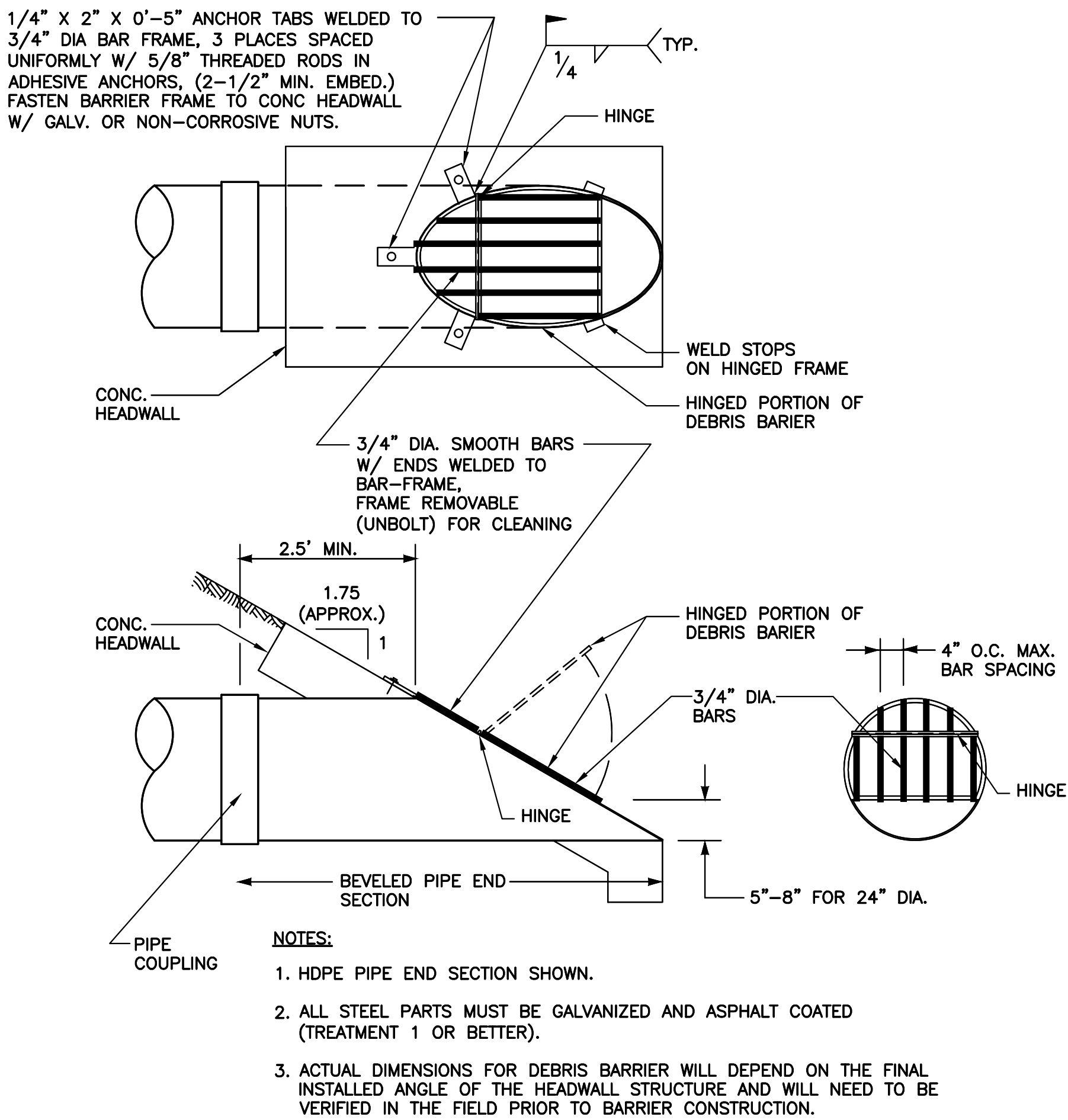


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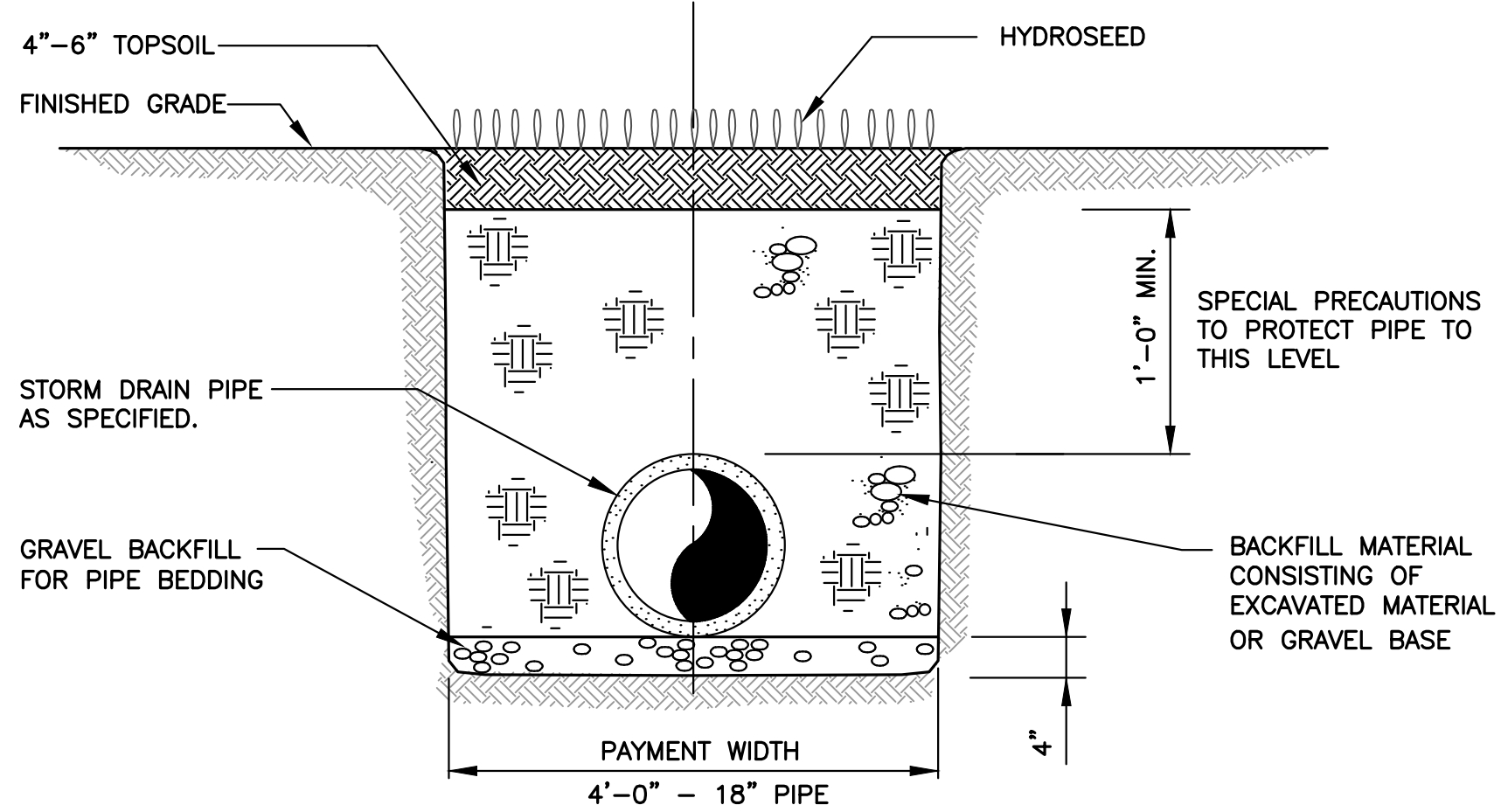
- HYDROSEED SHALL BE APPLIED TO VEGETATED DITCH SECTIONS AND AS SHOWN ON THE PLANS. SEED OF THE FOLLOWING MIX SHALL BE APPLIED AT 120LB/ACRE.

COMMON NAME	% WEIGHT	% PURITY	% GERMINATION
TALL OR MEADOW FESCUE	75-80%	98%	90%
SEASIDE/CREAPING BLUEGRASS	10-15%	92%	85%
REDTOP BENTGRASS	5-10%	90%	80%

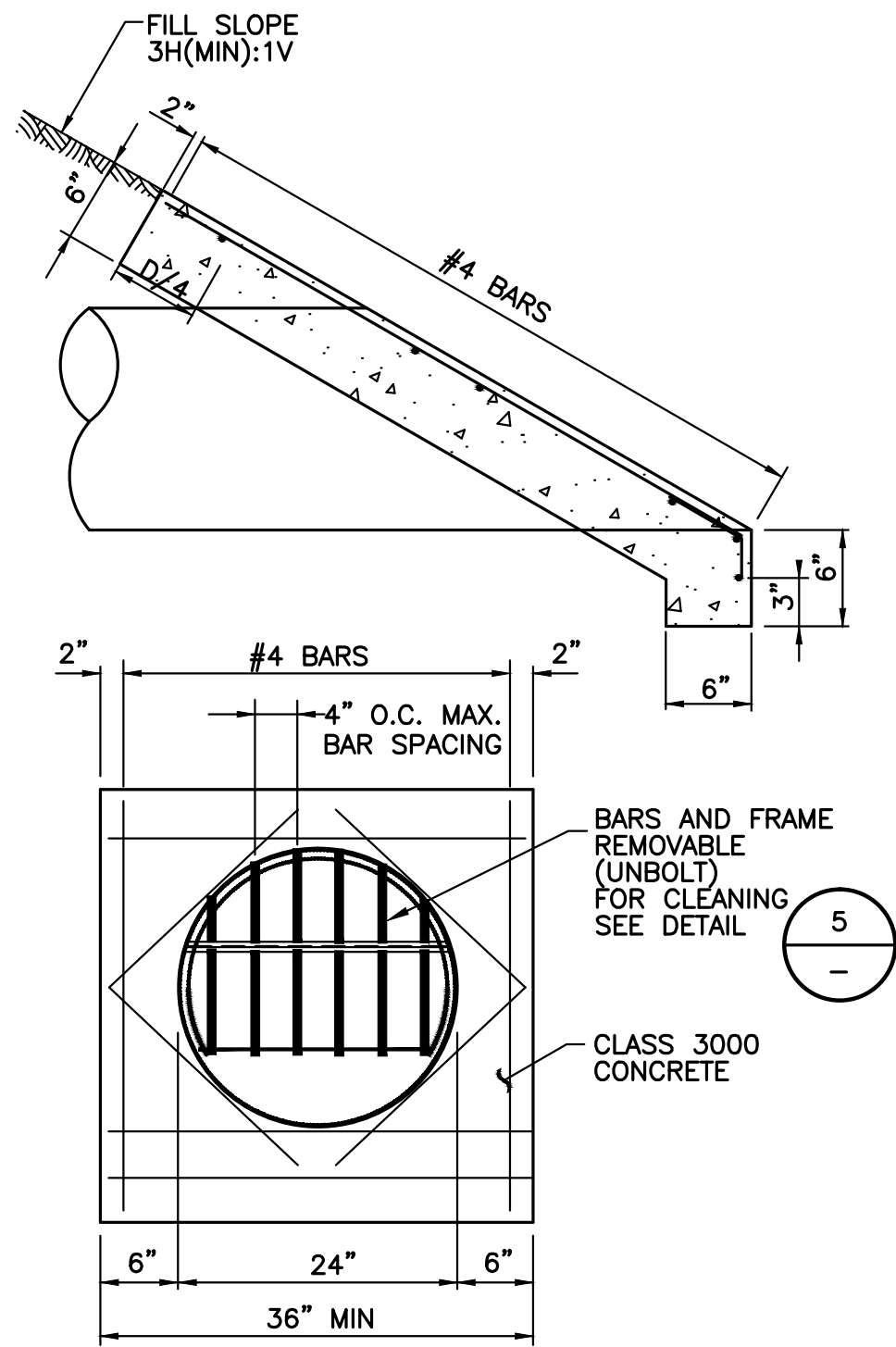
2
-
DRAINAGE DITCH DETAIL
NOT TO SCALE



5
-
DEBRIS BARRIER DETAIL
NOT TO SCALE



3
-
SHALLOW STORM DRAIN PIPE
TYPICAL TRENCH SECTION
NOT TO SCALE



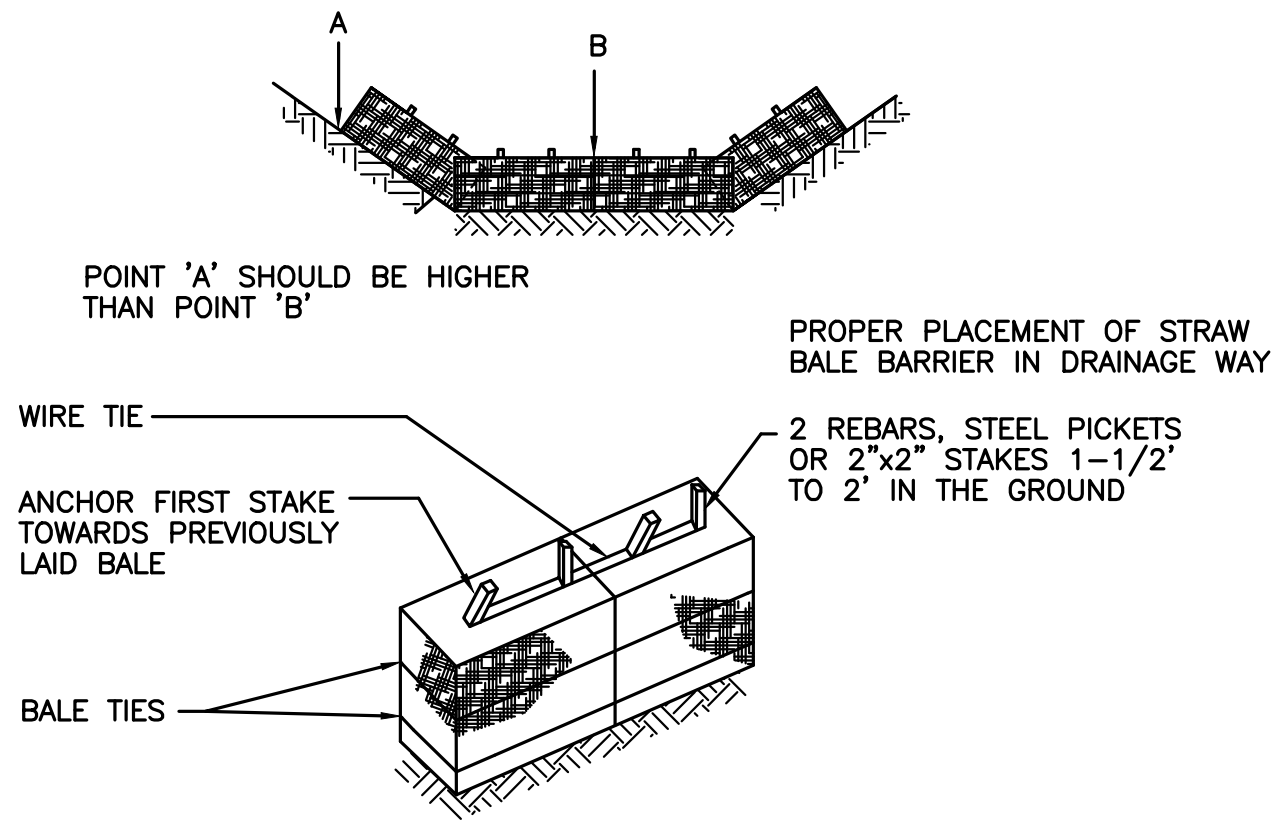
6
-
CONCRETE HEADWALL
WITH DEBRIS BARRIER
NOT TO SCALE

0 1" 2"
TWO INCHES AT FULL SCALE.
IF NOT, SCALE ACCORDINGLY

DATE: JAN 2015	SCALE:	DRAWN: P.C.M.	CHECKED: N.E.L.	APPROVED: N.E.L.
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REVISION	DATE	APPD
No.		



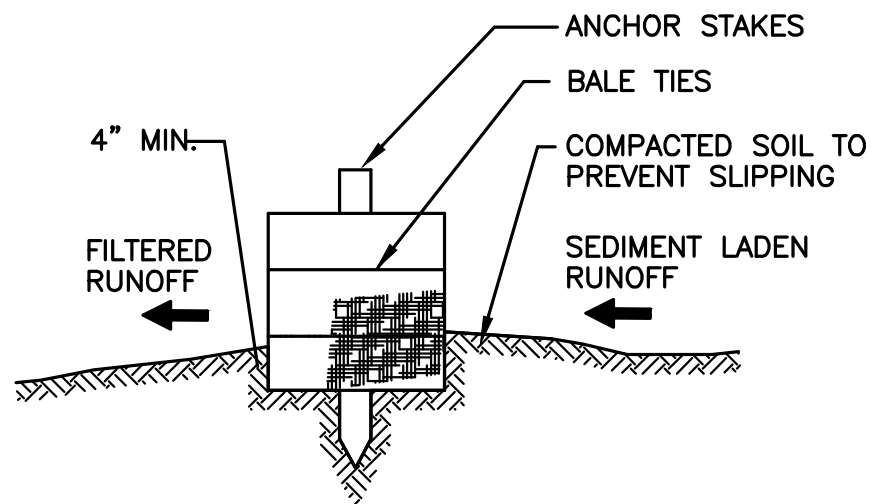
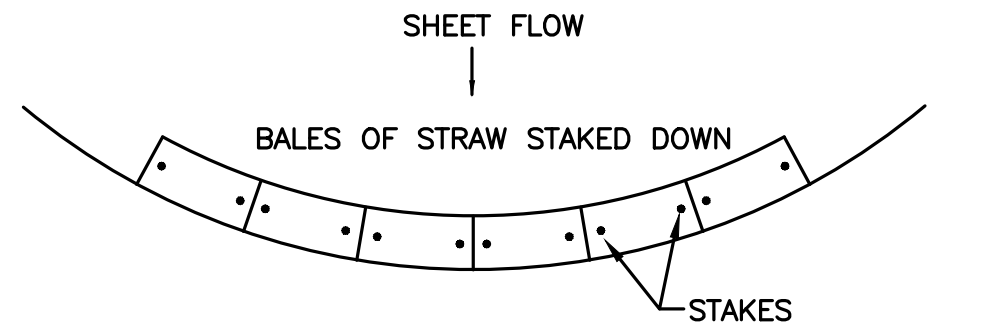


1
—
NOT TO SCALE

**STRAW AND HAY BALE
BARRIER ANCHOR DETAIL**

EROSION CONTROL NOTES:

1. EROSION CONTROL FACILITIES SHALL BE CONSTRUCTED AND MAINTAINED PER THE SPECIFICATIONS
2. THE CONTRACTOR SHALL STAKE CLEARING LIMITS PRIOR TO CONSTRUCTION. CLEARING LIMITS SHALL BE STAKED INSIDE RIGHT-OF-WAY, EASEMENTS, OR OTHER AREAS AFFECTED BY CONSTRUCTION.
3. THE CONTRACTOR SHALL ESTABLISH AND MAINTAIN TEMPORARY EROSION CONTROL/SEDIMENT CONTROL MEASURES PRIOR TO THE START OF CONSTRUCTION. THESE SPECIFICALLY INCLUDE BUT ARE NOT LIMITED TO SILT FENCES, STRAW BALES, ROCK BERMS, SILT TRAPS, AND SEDIMENT PONDS.
4. THE CONTRACTOR SHALL REMOVE TEMPORARY EROSION CONTROL MEASURES ONLY AFTER OWNER'S AUTHORIZATION.



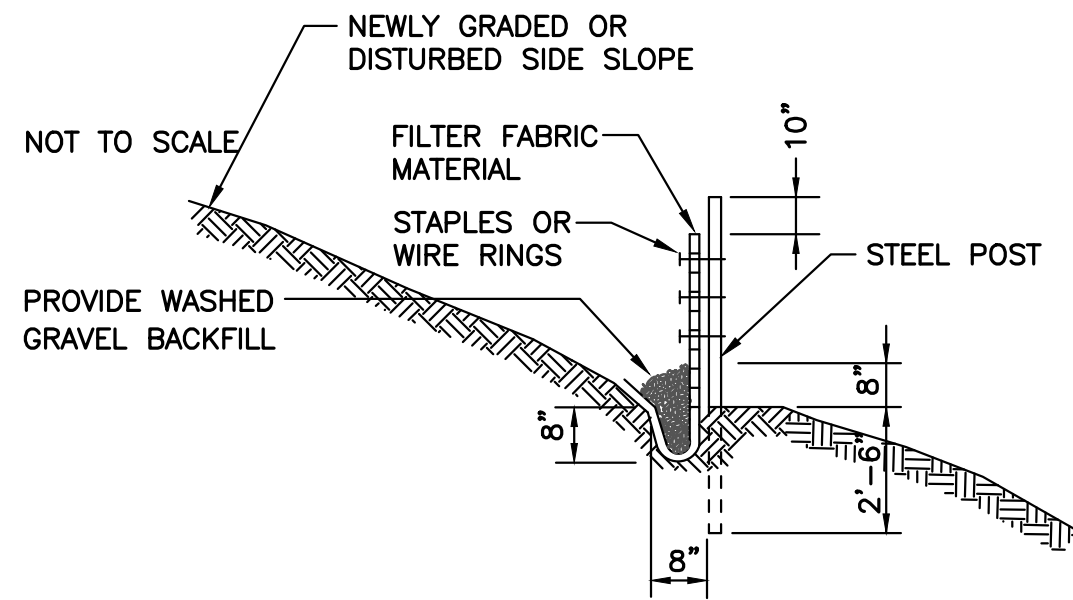
CROSS-SECTION

NOTE:

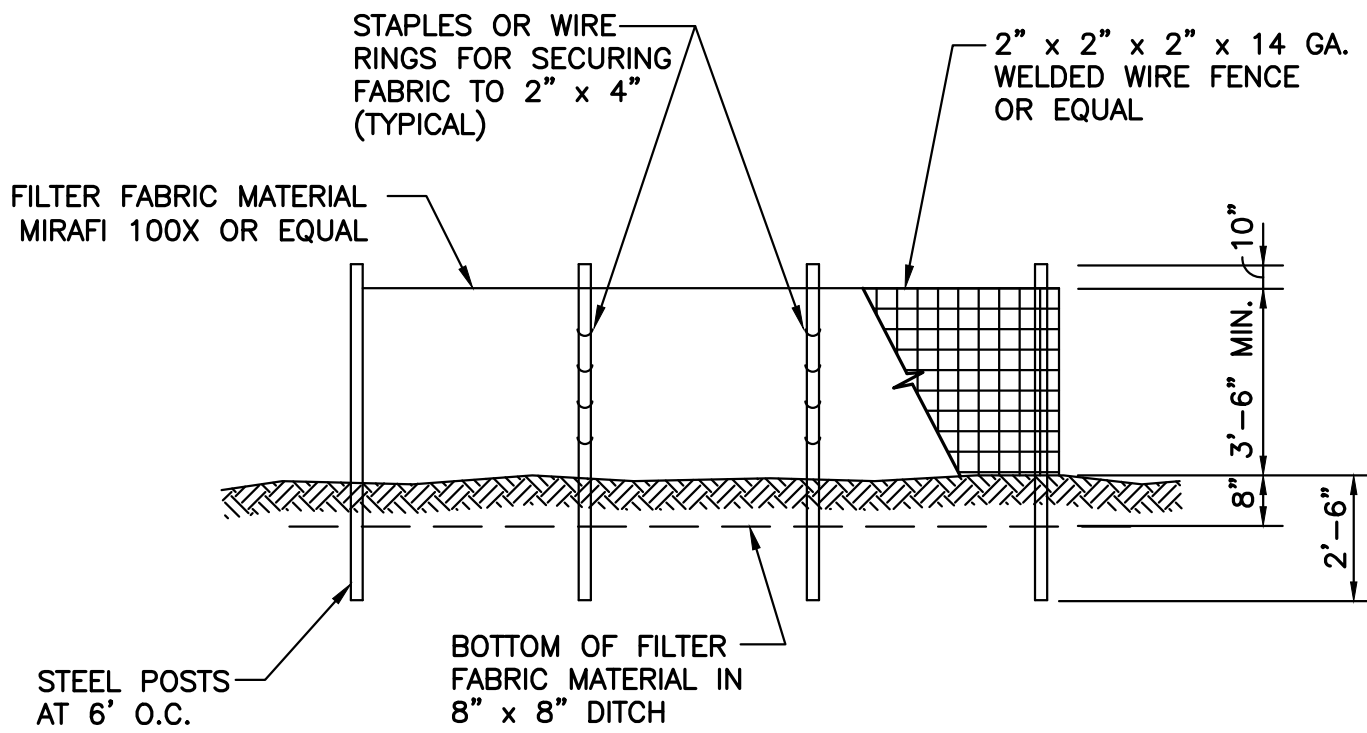
SINGLE ROW OF BALES OF STRAW TO BE PLACED PRIOR TO THE START OF ROUGH GRADING.

2
—
NOT TO SCALE

STRAW AND HAY BALE BARRIERS



CROSS SECTION



ELEVATION

NOTES:

1. WHERE POSSIBLE, MAINTAIN NATURAL VEGETATION FOR EROSION CONTROL
2. TEMPORARY CHECK DAM TO BE CONSTRUCTED BY PLACING FILTER FABRIC FENCES ACROSS SWALES UTILIZING FILTER SYSTEM PRIOR TO DISCHARGE.
3. ALL TEMPORARY EROSION CONTROL SHALL BE MAINTAINED IN A SATISFACTORY CONDITION UNTIL SUCH TIME THAT CLEARING AND/OR CONSTRUCTION IS COMPLETED AND SURFACE RESTORATION HAS BEEN COMPLETED
4. RETURN EROSION CONTROL AREAS TO ORIGINAL GROUND CONDITIONS.

3
—
NOT TO SCALE

FILTER FENCE

0 1" 2"
TWO INCHES AT FULL SCALE.
IF NOT, SCALE ACCORDINGLY



Gray & Osborne, Inc.
CONSULTING ENGINEERS
701 DEXTER AVENUE NORTH, SUITE 200
SEATTLE, WASHINGTON 98109 • (206) 284-0860

DATE: JAN 2015
SCALE: AS NOTED
DRAWN: P.C.M.
CHECKED: N.E.L.
APPROVED: N.E.L.

APPD	DATE	REVISION	No.



PORT LUDLOW DRAINAGE DISTRICT
JEFFERSON COUNTY WASHINGTON
TRADER LANE
DRAINAGE IMPROVEMENT PROJECT
TEMPORARY EROSION AND SEDIMENT
CONTROL DETAILS

SHEET: 4
OF: 4

JOB NO.: 11520.00
DWG: DETAILS