





## ***1.0 GENERAL***

1. CONTRACTORS SHALL LIMIT ALL CONSTRUCTION ACTIVITIES AND HEAVY EQUIPMENT OPERATION TO BETWEEN 7:00 AM AND 6:00 PM MONDAY THROUGH FRIDAY UNLESS ALTERNATIVE HOURS ARE APPROVED BY BOTH THE MORT AND THE MDT. PBC WILL IMPOSE A MINIMUM FINE OF \$250 PER VIOLATION OF THE ALLOWABLE CONSTRUCTION HOURS.
- 1.2 CONTRACTORS SHALL HAVE A CITY OF ISSAQUAH BUSINESS LICENSE.
- 1.3 CONTRACTORS SHALL HAVE COPIES OF THE APPROVED PLANS, APPLICABLE CITY STANDARDS, AND THE SPILL RESPONSE PLAN ON-SITE AT ALL TIMES. THE "CITY STANDARDS" REFER TO THE CITY OF ISSAQUAH STREET STANDARDS DATED 1991, CITY OF ISSAQUAH WATER STANDARDS DATED 1988 AND REVISED 2002, AND CITY OF ISSAQUAH SEWER STANDARDS DATED 1988. THESE CITY STANDARDS HAVE NOT BEEN STAMPED BY A PROFESSIONAL ENGINEER AND, PER WAC 196-23-020, THEY ARE PROVIDED AS ENGINEERING DESIGN AIDS ONLY. CONTRACTORS SHALL CONTACT THE ENGINEER AND PBC PRIOR TO USING ANY ELEMENTS OF THE CITY STANDARDS THAT ARE NOT SPECIFICALLY CALLED OUT IN THESE GENERAL NOTES FOR ISSAQUAH HIGHLANDS ROADS & UTILITIES OR SHOWN ON THE PLANS & SPECIFICATIONS. CITY STANDARDS SHALL NOT BE APPROVED FOR USE UNLESS THEY ARE SPECIFICALLY REFERENCED IN THE APPROVED CONSTRUCTION PLANS OR THROUGH A DESIGN CHANGE APPROVED BY THE MORT.
- 1.4 CONTRACTORS SHALL REFUEL ALL EQUIPMENT ON-SITE USING MORT APPROVED METHODS AND PROCEDURES.
- 1.5 CONTRACTORS SHALL PROVIDE THE MORT INSPECTOR AND PBC WITH A MATERIALS LIST A MINIMUM OF TWO WORKING DAYS BEFORE INSTALLATION. THE LIST SHALL INCLUDE MANUFACTURER AND/OR MODEL NUMBER (IF APPLICABLE) OF MATERIAL AND EQUIPMENT TO BE INSTALLED. THE MANUFACTURER'S TECHNICAL SPECIFICATIONS FOR PIPE, APPURTENANCES AND EQUIPMENT SHALL BE SUPPLIED TO THE MORT AND PBC UPON REQUEST.
- 1.6 CONTRACTORS SHALL LAY ALL WATER, SEWER AND STORM DRAINAGE PIPELINES "UP-HILL" STARTING AT THE LOWEST MAJOR ELEVATION. THE MAIN SHALL BE POSITIONED SO THAT THE BELL END IS ON THE HIGHER SIDE OF THE PIPE. SLOPE AND THE PLAIN END INSERTED INTO THE BELL END. PIPE ENDS SHALL NOT BE DRIVEN HOME, BUT SHALL BE POSITIONED WITH ADEQUATE ROOM FOR THERMAL EXPANSION OF THE PIPE NETWORK WITHOUT BUCKLING OR COMPRESSION OF THE JOINTS.
- 1.7 CONTRACTORS SHALL PLACE TRENCH BACKFILL IN UNIFORM LOOSE LIFTS NOT EXCEEDING 12 INCHES IN THICKNESS. TRENCH BACKFILL LOCATED BETWEEN THE BOTTOM OF THE PIPE AND 6-INCHES ABOVE THE PIPE CROWN SHALL NOT CONTAIN ROCKS LARGER THAN 3-INCHES IN DIAMETER. TRENCH BACKFILL LOCATED WITHIN THE TOP 4-FEET SHALL BE COMPACTED TO A MINIMUM OF 95 PERCENT OF THE SOIL'S MAXIMUM DRY DENSITY AS DETERMINED USING MODIFIED PROCTOR. TRENCH BACKFILL DEEPER THAN 4-FEET SHALL BE COMPACTED TO A MINIMUM OF 90 PERCENT OF THE SOIL'S MAXIMUM DRY DENSITY AS DETERMINED USING MODIFIED PROCTOR.
- 1.8 CONTRACTORS SHALL NOT INSTALL ABOVEGROUND COPPER OR GALVANIZED MATERIALS OTHER THAN VAULT LIDS OR OTHER MORT APPROVED ITEMS.
- 1.9 PBC SHALL CONTRACT WITH A GEO-TECHNICAL ENGINEER LICENSED IN THE STATE OF WASHINGTON TO SUPERVISE ALL TRENCH AND ROADWAY BACKFILL AND SIGNIFICANT GRADING ACTIVITIES. CONSTRUCTION RECORDS OF SOIL PLACEMENT AND COMPACTION TESTING SHALL BE TRANSMITTED TO THE MORT ON A WEEKLY BASIS. ALL TESTS SHALL INCLUDE A MAP SHOWING THE TESTING LOCATION, THE ISSAQUAH PUB #, AND NAME OF PLAN SET USED FOR CONSTRUCTION. A SEPARATE REPORT SHALL BE ISSUED FOR EACH PUB #.
- 1.10 PBC SHALL SCHEDULE A PRE-CONSTRUCTION MEETING WITH THE MORT PRIOR TO ANY CONSTRUCTION ACTIVITY.
- 1.11 THE FOLLOWING ORDER OF PRECEDENCE SHALL APPLY IF THERE ARE INCONSISTENCIES BETWEEN THE DIFFERENT ELEMENTS OF THE CONSTRUCTION PLANS: 1) MORT APPROVED FIELD CHANGES, 2) MORT APPROVED DESIGN CHANGES, 3) MORT APPROVED PLANS & SPECIFICATIONS, 4) GENERAL NOTES FOR ISSAQUAH HIGHLANDS ROADS & UTILITIES (I.E., THESE NOTES), AND 5) STANDARD SPECIFICATIONS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION, 2006 EDITION.

- 2.1 CONTRACTORS SHALL USE CLASS 52 OR THICKER DUCTILE IRON MEETING AWWA C151. PIPE AND FITTINGS SHALL HAVE CEMENT-MORTAR LINING MEETING AWWA C104. FITTINGS SHALL BE CAST IRON OR DUCTILE IRON MEETING THE REQUIREMENTS OF AWWA C110 OR AWWA C153.
- 2.2 CONTRACTORS SHALL INSTALL WATER MAINS WITH A MINIMUM DEPTH OF COVER OF 36" AND A MAXIMUM DEPTH OF COVER OF 60" UNLESS SHOWN OTHERWISE ON THE APPROVED CONSTRUCTION DRAWINGS.
- 2.3 CONTRACTORS SHALL INSTALL ALL WATER MAINS SO THAT THEY ARE RESTRAINED FROM UNRESOLVED HYDROSTATIC THRUST FORCES IN ACCORDANCE WITH THE APPROVED DESIGN PLANS. CHANGES TO THE APPROVED THRUST RESTRAINT SYSTEM SHALL NOT BE MADE WITHOUT MORT AND PBC APPROVAL. MORT INSPECTION OF BLOCKING AND RESTRAINED PIPE SYSTEMS IS REQUIRED PRIOR TO BACKFILL.
- 2.4 MEGA-LUG TYPE JOINT RESTRAINT SYSTEMS SHALL ONLY BE USED ON 12-INCH DIAMETER OR SMALLER DUCTILE IRON PIPE.
- 2.5 CONTRACTORS SHALL TEST ALL WATER MAINS, WATER MAIN APPURTENANCES, AND SERVICE CONNECTIONS EXCLUDING THE METER SETTER ASSEMBLY TO 150 PSI OVER THE NORMAL WORKING PRESSURE. TEST PROCEDURES SHALL CONFORM TO AWWA STANDARDS. PIPE PRESSURE RATING SHALL BE AT LEAST 150 PSI IN EXCESS OF THE WORKING.
- 2.6 CONTRACTORS SHALL INSTALL M&H 929, MUELLER CENTURION OR APPROVED EQUAL HYDRANTS. HYDRANT LATERALS LESS THAN 30' LONG SHALL BE 6", LONGER THAN 50' SHALL BE 8". ALL HYDRANT RUNS SHALL BE SHACKLED AND BLOKED. HYDRANTS SHALL BE SUPPLIED WITH 5" STORZ TYPE ADAPTERS.
- 2.7 CONTRACTORS SHALL INSTALL 2" MINIMUM AIR AND VACUUM RELEASE VALVES PER THE WATER STANDARDS DATED 1988 AND REVISED 2002. THE ABOVE GRADE PORTIONS OF THE PIPE SHALL BE COATED WITH TWO COATS OF ALKYL D BASED HIGH-GLOSS WHITE PAINT.
- 2.8 CONTRACTORS SHALL INSTALL 2-PIECE RICH 940 OR APPROVED EQUAL VALVE BODIES.
- 2.9 CONTRACTORS SHALL INSTALL SADDLE TYPE ROMAC 1015 OR 202, OR APPROVED EQUAL, SERVICE CONNECTIONS WITH DOUBLE STRAPS USED ON 12" OR LARGER SIZES. CONNECTIONS TO BE MADE ON PRESSURIZED WATER MAIN ONLY.
- 2.10 CONTRACTORS SHALL INSTALL 1/4" AND 1" SERVICE LINES WITH A MINIMUM DEPTH OF 24" AND A SERVICE LINE TAP UP TO 30 FROM THE SPRING LINE OF THE PIPE. CORP STOPS SHALL BE FORD F1000, FB1000, OR MUELLER H-1500B.
- 2.11 CONTRACTORS SHALL INSTALL 1 1/2" AND 2" SERVICE LINES WITH A MINIMUM DEPTH OF 24" AND A SERVICE LINE TAP UP TO 10 FROM THE SPRING LINE OF THE PIPE. CORP STOPS SHALL BE FORD F1000, FB1000, OR MUELLER H-1500B.
- 2.12 CONTRACTORS SHALL INSTALL 3/4" AND 1" SERVICES IN ACCORDANCE WITH THE WATER STANDARDS DATED 1988 AND REVISED 2002. A PVC PIPE SPACER SHALL BE INSTALLED BETWEEN THE SETTER. THE SPACER SHALL BE CUT TO THE APPROPRIATE LENGTH AND IT SHALL CONTAIN A 3/8" DRILLED HOLE (VISIBLE FROM ABOVE). CONTRACTORS SHALL SUPPLY 2" SCHEDULE 40 PVC CONDUIT BETWEEN THE METER BOXES.
- 2.13 CONTRACTORS SHALL INSTALL 1 1/2" AND 2" SERVICES IN ACCORDANCE WITH THE WATER STANDARDS DATED 1988 AND REVISED 2002. A PVC PIPE SPACER SHALL BE INSTALLED BETWEEN THE SETTER. THE SPACER SHALL BE CUT TO THE APPROPRIATE LENGTH AND IT SHALL CONTAIN A 3/8" DRILLED HOLE (VISIBLE FROM ABOVE).
- 2.14 CONTRACTORS SHALL INSTALL WATER METER SETTERS TO A HORIZONTAL AND VERTICAL PLACEMENT TOLERANCE OF PLUS OR MINUS 1-INCH. WATER METER BOXES SHALL BE CENTERED IN THE PLANTER STRIP TO A TOLERANCE OF PLUS OR MINUS 2-INCHES.
- 2.15 CONTRACTORS SHALL INSTALL DOH APPROVED BACKFLOW PREVENTION DEVICES ON ALL IRRIGATION SERVICES. CONTRACTOR SHALL PROVIDE INDEPENDENT CERTIFICATION TO MORT INSPECTOR PRIOR TO INSTALLATION.
- 2.16 CONTRACTORS SHALL INSTALL ONE PIECE OF TYPE K COPPER FROM WATER MAIN TO METER SETTER FOR ALL SERVICE LINES. THE SERVICE LINE SHALL BE LOCATED PERPENDICULAR TO THE WATER MAIN.
- 2.17 CONTRACTORS SHALL INSTALL M&H, MUELLER OR APPROVED ALTERNATIVE RESILIENT SEAT TYPE (AWWA C-509) GATE VALVES PER CITY STANDARDS.
- 2.18 CONTRACTORS SHALL NOT CONNECT NEW MAINS TO THE CITY'S POTABLE WATER SYSTEM UNTIL THE MAINS HAVE PASSED PRESSURE AND PURITY TESTING AND HAVE BEEN APPROVED FOR CONNECTION BY THE MORT. CONTRACTORS SHALL PERFORM A HIGH FLOW FLUSH AS DIRECTED BY THE MORT IMMEDIATELY AFTER THE MAIN IS CONNECTED TO THE CITY WATER SUPPLY.

- 3.1 CONTRACTORS SHALL CONSTRUCT ALL SEWER PIPELINES WITH MINIMUM CLASS 50 DUCTILE IRON OR SOLID WALL PVC PIPE CONFORMING TO REQUIREMENTS OF ASTM D3034 SDR 35 WITH ELASTOMERIC JOINT GASKETS CONFORMING TO ASTM F 477. SEWER PIPE MATERIAL, MANHOLE SIZING, AND MANHOLE ACCESS SHALL BE DETERMINED BY THE ENGINEER AND SHOWN ON THE PLANS.
- 3.2 CONTRACTORS SHALL CONSTRUCT ALL PRESSURE SEWER PIPELINES WITH CLASS 52 DUCTILE IRON OR HDPE PIPE.
- 3.3 CONTRACTORS SHALL INSTALL OLYMPIC FOUNDRY INC. MH304D/T, OR APPROVED EQUIT, FRAMES AND COVERS MODIFIED TO HAVE "3" RAISED LETTERS MARKED "SEWER" WITH INTEGRAL CAST LIFT HANDLE. MANHOLES LOCATED IN PAVED ROW AREAS SHALL HAVE STANDARD, NON-LOCKING COVERS. MANHOLES IN UNPAVED AREAS AND IN EASEMENTS TO HAVE LOCKING COVERS.
- 3.4 CONTRACTORS SHALL AIR AND DEFLECTION TEST ALL GRAVITY SEWER PIPE. HDPE PRESSURE SEWER PIPELINES SHALL BE PRESSURE TESTED TO 150-PERCENT OF THE DESIGN OPERATING PRESSURE FOR 30-MINUTES. DUCTILE IRON PRESSURE SEWER PIPELINES SHALL BE PRESSURE TESTED TO THE GREATER OF 150 PSI OVER THE DESIGN WORKING PRESSURE OR 200 PSI.
- 3.5 CONTRACTORS SHALL MARK ALL SEWER STUBS WITH A 2X4 POST STENCILED "SEWER" IN 2-INCH LETTERS WITH THE ELEVATION OF THE STUB INVERT PERMANENTLY MARKED. MARKER TO BE ATTACHED TO PIPE INVERT WITH MINIMUM 12 GAUGE WIRE. CONTRACTOR SHALL EXPOSE, SURVEY, AND BACKFILL ALL SEWER STUBS INSTALLED WITHOUT 2X4 POSTS AND INVERT ELEVATIONS. PROVIDING THE DEPTH TO THE SEWER STUB IS NOT ACCEPTABLE. CONTRACTOR MUST PROVIDE ADJUST INVERT ELEVATION.
- 3.6 CONTRACTORS SHALL VIDEO INSPECT ALL GRAVITY SEWER PIPE AFTER THE ENTIRE SEWER SYSTEM IS INSTALLED AND CLEANED (INCLUDING MANHOLE CHANNELING AND DEBRIS REMOVAL). IMMEDIATELY PRIOR TO VIDEO INSPECTION, CONTRACTOR SHALL POUR 10 GALLONS OF CLEAN WATER INTO THE UPSTREAM MANHOLE. VIDEO INSPECTION TO BE SUCH THAT ENTIRE SEGMENT OF PIPE BETWEEN ADJACENT MANHOLES IS VIDEO TESTED WITHOUT INTERRUPTION. A COPY OF THE VIDEO INSPECTION TAPE SHALL BE SEALED IN A TAMPER PROOF ENVELOPE AND PROVIDED TO THE MDRT PRIOR TO ACCEPTANCE OF THE SEWER SYSTEM.
- 3.7 CONTRACTORS SHALL INSTALL ALL MANHOLE DROPS ON THE EXTERIOR OF THE MANHOLE UNLESS OTHERWISE APPROVED. ALL DROPS SHALL BE EQUIPPED WITH A "HALF-PLUG". INSPECTION OF BLOCKING REQUIRED PRIOR TO BACKFILL ON ALL OUTSIDE DROPS.
- 3.8 CONTRACTORS SHALL PLUG THE CONNECTION TO THE DOWNSTREAM SYSTEM PRIOR TO BEGINNING CONSTRUCTION. PLUG SHALL NOT BE REMOVED UNTIL CLEANING OF THE PROPOSED SEWER SYSTEM IS COMPLETE.
- 3.9 PIPE BEDDING SHALL CONFORM TO WSDOT 9-03.12(3) GRAVEL BACKFILL FOR PIPE ZONE BEDDING.

4.1 CONTRACTORS SHALL CONSTRUCT STORM PIPELINES WITH CONCRETE, LCP, HDPE, PVC OR ALUMINIZED TYPE 2 CORRUGATED STEEL PIPE. PIPE SHALL BE RATED FOR H2O SURFACE LOADS WHEN INSTALLED IN AREAS SUBJECT TO TRAFFIC.

4.2 CONTRACTORS SHALL INSTALL VANE TYPE CATCH BASIN GRATES UNLESS OTHERWISE NOTED.

4.3 CONTRACTORS SHALL INSTALL A 2X4 POST STENOLED "STORM" IN 2-INCH LETTERS WITH THE ELEVATION OF THE STUB INVERT PERMANENTLY MARKED. MARKER TO BE ATTACHED TO PIPE INVERT WITH MINIMUM 12 GAUGE WIRE. CONTRACTOR SHALL EXPOSE, SURVEY, AND BACKFILL ALL STUBS INSTALLED WITHOUT 2X4 POSTS AND INVERT ELEVATIONS. PROVIDING THE DEPTH TO THE STUB IS NOT ACCEPTABLE. CONTRACTOR MUST PROVIDE ACTUAL INVERT ELEVATION.

- 5.1 CONTRACTORS SHALL INSTALL PERMANENT ROADWAY MONUMENTS AT ALL PC'S, PT'S AND AT INTERSECTIONS. THE MONUMENTS SHALL BE IN ACCORDANCE WITH CITY STANDARD DETAILS.
- 5.2 CONTRACTORS SHALL COMPACT ROADWAY SUBGRADE IN UNIFORM FLOOR LIFTS NOT EXCEEDING 12 INCHES AND COMPACTED TO A MINIMUM OF 95 PERCENT OF THE SOIL'S MAXIMUM DRY DENSITY AS DETERMINED USING MODIFIED PROCTOR. RECYCLED ASPHALT PAVEMENT AND MINERAL AGGREGATE MAY BE USED FOR ROAD SUBGRADE IF APPROVED BY THE GEOTECHNICAL ENGINEER PRIOR TO PLACEMENT. ALL SUBGRADE SHALL BE INSPECTED BY THE MORT AND PBC PRIOR TO PLACEMENT OF BASE COURSE AND OTHER ROADWAY MATERIALS.
- 5.3 CONTRACTORS SHALL REQUEST A PRE-FINAL LIFT (WEARING COURSE) INSPECTION FROM THE MORT AND PBC A MINIMUM OF ONE BUSINESS DAY PRIOR TO FINAL LIFT PLACEMENT. THE MORT AND PBC WILL INSPECT AND APPROVE THE ATB SURFACE PRIOR TO INSTALLATION OF THE FINAL LIFT. FINAL LIFT PAVING THAT IS PLACED WITHOUT MORT AND PBC INSPECTION IS SUBJECT TO REMOVAL AND REPAIR AT THE CONTRACTOR'S SOLE COST.
- 5.4 PBC SHALL CONTRACT WITH A GEO-TECHNICAL ENGINEER LICENSED IN THE STATE OF WASHINGTON TO TEST THE SUBGRADE AT 200' MINIMUM SPACING FOR COMPLIANCE WITH THE COMPACTION STANDARD.
- 5.5 CONTRACTORS SHALL INSTALL CONCRETE SIDEWALKS WITH A BROOM FINISH AND 4-INCH SHINERS AT ALL EXPANSION JOINTS AND ALL EXPOSED EDGES, UNLESS OTHERWISE NOTED. SIDEWALKS SHALL BE 6-INCH MINIMUM THICKNESS WHERE SUBJECT TO TRAFFIC LOADS AND 4-INCH MINIMUM THICKNESS ELSEWHERE. EXPANSION JOINTS SHALL BE PLACED NO MORE THAN 20-FEET APART. CONCRETE SHALL BE PLACED OVER 4-INCHES OF COMPACTED SUBGRADE CONSISTING OF CRUSHED ROCK OR GRAVEL BASE.
- 5.6 CONTRACTORS SHALL REQUEST A PRE-POUR INSPECTION IN WRITING FROM THE MORT AND PBC A MINIMUM OF ONE BUSINESS DAY PRIOR TO POURING ANY WHEELCHAIR RAMPS. THE MORT WILL INSPECT AND APPROVE THE WHEELCHAIR RAMP FORMS BY SIGNING THE CONTRACTOR'S RED-LINE PLANS. WHEELCHAIR RAMPS THAT ARE POURED WITHOUT MORT INSPECTOR WRITTEN APPROVAL ARE SUBJECT TO REMOVAL AND REPLACEMENT AT THE CONTRACTOR'S SOLE COST.
- 5.7 SIDEWALKS, RAMPS, AND DRIVEWAYS THAT PROVIDE PEDESTRIAN ACCESSIBLE ROUTES SHALL COMPLY WITH THE FOLLOWING: CHANGES IN LEVEL UP TO 1/4-INCH MAY BE VERTICAL AND WITHOUT EDGE TREATMENT, CHANGES IN LEVEL BETWEEN 1/4-INCH AND 1/2-INCH SHALL BE BEVELED WITH A SLOPE NO GREATER THAN 1V:2H, CHANGES IN LEVEL GREATER THAN 1/2-INCH SHALL NOT BE ALLOWED.
- 5.8 SIDEWALK STRIPPING SHALL BE DETERMINED BY THE ENGINEER AND SHOWN ON THE PLANS.
- 5.9 CRUSHED ROCK FOR ROADWAYS, WOONERS' AND SIDEWALKS MAY BE REPLACED WITH THE SAME THICKNESS OF 1-1/2 INCH MINUS SCREENED AND WELL GRADED GRAVEL "GRAVEL BASE" IF APPROVED BY THE GEOTECHNICAL ENGINEER. GRAVEL BASE MUST BE PRODUCED AND STOCKPOILED ON-SITE.

- 6.1 CONTRACTORS MAY WORK BETWEEN APRIL 1ST AND SEPTEMBER 30TH USING THE DRY WEATHER TESC REQUIREMENTS SHOWN ON THE PLANS AND IDENTIFIED BELOW. GRADING ACTIVITIES BETWEEN OCTOBER 1ST AND MARCH 31ST ARE ALLOWED BY SPECIAL PERMIT ONLY.
- 6.2 CONTRACTORS SHALL COVER ALL EXPOSED SOIL AREAS PRIOR TO SEPTEMBER 30TH. AREAS STEEPER THAN 3:1 SHALL BE COVERED WITH PLASTIC, BONDED FIBER OR JUTE MATTING, AND ALL OTHER AREAS SHALL BE COVERED WITH STRAW OR HYDROSEED.
- 6.3 CONTRACTORS SHALL KEEP ALL ROADWAYS CLEAN AND FREE OF SEDIMENT, MUD, ROCK AND DEBRIS.
- 6.4 CONTRACTORS SHALL COMPACT ALL BUILDING AND PAVEMENT AREAS LOCATED OUTSIDE OF PUBLIC RIGHTS-OF-WAYS IN UNIFORM LOOSE LIFTS NOT EXCEEDING 12 INCHES. AREAS EAST OF THE FIRE STATION SHALL BE COMPACTED TO A MINIMUM OF 95 PERCENT OF THE SOIL'S MAXIMUM DRY DENSITY AS DETERMINED USING STANDARD PROCTOR. AREAS WEST OF THE FIRE STATION SHALL BE COMPACTED TO A MINIMUM OF 95 PERCENT OF THE SOIL'S MAXIMUM DRY DENSITY AS DETERMINED USING MODIFIED PROCTOR.

1) CONTRACTOR SHALL MAINTAIN HAND DRAWN RED-LINES, FIELD NOTES AND PHOTOGRAPHS ("FIELD DOCUMENTATION") OF ALL IMPROVEMENTS AS THE WORK PROGRESSES. CONTRACTOR'S FIELD DOCUMENTATION SHALL BE MAINTAINED ONSITE AND SHALL BE AVAILABLE AT ALL TIMES FOR MORT REVIEW. THE MORT INSPECTOR WILL PERIODICALLY REVIEW THE CONTRACTOR'S FIELD DOCUMENTATION AND WILL STOP WORK IF THE CONTRACTOR IS NOT MAINTAINING ADEQUATE RECORDS.

2) CONTRACTORS SHALL CONTRACT WITH A PROFESSIONAL SURVEYOR LICENSED IN THE STATE OF WASHINGTON TO ACQUIRE ALL OF THE FIELD DATA REQUIRED TO CREATE THE RECORD DRAWINGS. THE CONTRACTOR'S SURVEYOR SHALL BE THE SURVEYOR OF RECORD FOR THE RECORD DRAWINGS. ALL FIELD LOCATIONS SHALL BE TIED TO AN EASILY MEASURED OBJECT IN THE FIELD SUCH AS LIGHT POLE, MANHOLE, CATCH BASIN, CURB HUB, ETC.

3) PBC SHALL CONTRACT WITH A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF WASHINGTON TO PREPARE THE RECORD DRAWINGS. THE RECORD DRAWINGS SHALL FOLLOW THE SAME GENERAL FORMAT AS THE APPROVED CONSTRUCTION DRAWINGS AND THEY SHALL CONSIST OF A CLEAN SET OF MYLAR PRINTS WITH ALL CONSTRUCTION NOTES REMOVED AND NO CROSS-OUTS. RECORD DRAWINGS SHALL BE GENERATED USING THE FOLLOWING INFORMATION:

- 7.3.1 CONTRACTOR SUPPLIED SURVEY INFORMATION
- 7.3.2 CONTRACTOR'S FIELD DOCUMENTATION.
- 7.3.3 ENGINEER'S FIELD DOCUMENTATION.
- 7.3.4 MORT INSPECTOR'S FIELD DOCUMENTATION.
- 7.3.5 FIELD CHANGES AND DESIGN CHANGES.
- 7.3.6 THE APPROVED CONSTRUCTION DRAWINGS.

4) EACH SHEET OF THE RECORD DRAWINGS SHALL INCLUDE THE FOLLOWING STATEMENTS AND SHALL BE STAMPED AND SIGNED BY THE ENGINEER OF RECORD AND THE SURVEYOR OF RECORD:

7.4.1 THE SURVEYOR OF RECORD SHALL SIGN THE FOLLOWING STATEMENT ON EACH SHEET OF THE RECORD DRAWINGS:  
"\_\_\_\_\_" (THE SURVEYOR OF RECORD) HEREBY CERTIFY THAT THE SURVEY INFORMATION SHOWN ON THESE RECORD DRAWINGS ACCURATELY REFLECTS THE FIELD CONDITIONS AS OF \_\_\_\_\_."

7.4.2 THE ENGINEER OF RECORD SHALL SIGN THE FOLLOWING STATEMENT ON EACH SHEET OF THE RECORD DRAWINGS:  
"\_\_\_\_\_" (THE ENGINEER OF RECORD) HEREBY CERTIFY THAT THE FACILITIES SHOWN ON THESE RECORD DRAWINGS \_\_\_\_\_ MEET THE INTENT OF THE DESIGN.

THE INFORMATION SHOWN ON THESE RECORD DRAWINGS WAS COMPILED FROM THE FOLLOWING SOURCES: 1) SURVEY OF VISIBLE FEATURES, 2) CONTRACTOR NOTES, RED-LINES AND SURVEY DATA, 3) MORT INSPECTOR COMMENTS, AND 4) APPROVED CONSTRUCTION PLANS. THE ENGINEER OF RECORD CERTIFYING THESE RECORD DRAWINGS HAS NOT WITNESSED ALL ELEMENT OF CONSTRUCTION AND IS NOT RESPONSIBLE FOR ERRORS OR OMISSIONS IN DATA PROVIDED BY THE CONTRACTOR, THE MORT OR THE SURVEYOR OF RECORD."

- 7.5 SANITARY SEWER RECORD DRAWINGS SHALL INCLUDE THE FOLLOWING INFORMATION PLUS ANY ADDITIONAL INFORMATION THAT, BASED ON GOOD ENGINEERING PRACTICES AND THE SPECIFIC PROJECT FEATURES, THE ENGINEER OF RECORD FEELS IS WARRANTED:
- 7.5.1 SEWER PIPELINE PLAN AND PROFILES WITH PIPE MATERIAL, SIZE, LOCATION, SLOPE, AND LENGTH.
  - 7.5.2 MANHOLE TYPE, SIZE, LOCATION, RIM ELEVATION, INVERT ELEVATIONS, AND DROP STRUCTURES FEATURES.
  - 7.5.3 SIZE SEWER MATERIAL, SIZE, LOCATION, AND INVERT ELEVATION.
- 7.6 WATER RECORD DRAWINGS SHALL INCLUDE THE FOLLOWING INFORMATION PLUS ANY ADDITIONAL INFORMATION THAT, BASED ON GOOD ENGINEERING PRACTICES AND THE SPECIFIC PROJECT FEATURES, THE ENGINEER OF RECORD FEELS IS WARRANTED:
- 7.6.1 WATER PIPELINE PLAN WITH PIPE MATERIAL, SIZE, LOCATION AND LENGTH.
  - 7.6.2 WATER VALVE TYPE, SIZE, INVERT ELEVATION AND LOCATION.
  - 7.6.3 WATER FITTING TYPE, SIZE, INVERT ELEVATION, BLOCKING DIMENSION AND LOCATION.
  - 7.6.4 WATER MAIN INVERT ELEVATIONS AT 50' SPACING FOR ALL PIPE INSTALLED AT A DEPTH GREATER THAN 5'.
  - 7.6.5 PIPE AND LOCATION OF THRUST RESTRAIN SYSTEM.
  - 7.6.6 FIRE HYDRANT LOCATION.
  - 7.6.7 BLOW-OFF SIZE AND LOCATION.
  - 7.6.8 AIR & VACUUM RELIEF VALVE SIZE AND LOCATION.
  - 7.6.9 WATER METER SIZE AND LOCATION.
- 7.7 STORM RECORD DRAWINGS SHALL INCLUDE THE FOLLOWING INFORMATION PLUS ANY ADDITIONAL INFORMATION THAT, BASED ON GOOD ENGINEERING PRACTICES AND THE SPECIFIC PROJECT FEATURES, THE ENGINEER OF RECORD FEELS IS WARRANTED:
- 7.7.1 STORM PIPELINE PLAN AND PROFILES WITH PIPE MATERIAL, SIZE, LOCATION, SLOPE, AND LENGTH.
  - 7.7.2 CATCH BASIN TYPE, SIZE, LOCATION, RIM ELEVATION, AND INVERT ELEVATIONS.
  - 7.7.3 FLOW CONTROL STRUCTURE TYPE, SIZE, LOCATION, RIM ELEVATION, ORIFICE SIZE, OVERFLOW ELEVATIONS, ETC.
  - 7.7.4 LOT DRAIN SIZE, LOCATION AND INVERT ELEVATION.
  - 7.7.5 RETENTION/DETENTION SYSTEM PLAN AND PROFILES WITH VOLUME, OPERATING LEVELS, OVERFLOW ELEVATIONS, AND OTHER PERTINENT ENGINEERING AND OPERATIONAL FEATURES AND COMPONENTS.
- 7.8 ROADWAY RECORD DRAWINGS SHALL INCLUDE THE FOLLOWING INFORMATION PLUS ANY ADDITIONAL INFORMATION THAT, BASED ON GOOD ENGINEERING PRACTICES AND THE SPECIFIC PROJECT FEATURES, THE ENGINEER OF RECORD FEELS IS WARRANTED:
- 7.8.1 CENTERLINE PROFILE WITH ELEVATIONS AT INTERSECTIONS, PVI'S, BVC'S, AND EVC'S, INCLUDE VERTICAL CURVE DATA.
  - 7.8.2 GUTTERLINE ELEVATIONS AT  $\frac{1}{4}$  POINTS OF INTERSECTION RADIUS RETURNS, INCLUDE CURVE DATA, AND AT ROADWAY WIDTH TRANSITION POINTS.
  - 7.8.3 CHANNELIZATION TYPE AND LOCATION.
  - 7.8.4 SIGNAGE TYPE AND LOCATION.
  - 7.8.5 ILLUMINATION TYPE AND LOCATION.
  - 7.8.6 RIGHT-OF-WAY MONUMENTATION.

8.1 CONTRACTORS SHALL COMPLY WITH ALL APPLICABLE LOCAL, STATE AND FEDERAL AGENCY SAFETY STANDARDS.

8.2 CONTRACTS SHALL PROVIDE PBC WITH SITE-SPECIFIC SAFETY PLANS PRIOR TO STARTING WORK. CONTRACTORS SHALL STRICTLY CONFORM TO ALL SAFETY PLANS AND NON-CONFORMANCE WILL RESULT IN FINES AND/OR EXPULSION FROM THE PROJECT.

9.1 LANDSCAPING REVIEW IN RIGHT-OF-WAY (ROW) IS LIMITED TO UTILITY CONFLICTS, TREES IN ACCORDANCE WITH MASTER STREET TREE PLAN, COMPLIANCE WITH CONDITIONS IN THE LAND USE PERMIT/SPREADSHEET (LANDS) AND DESIGN GUIDELINES, AND CONSISTENT WITH NEIGHBORHOOD TYPE DESIGN GUIDELINES. LANDSCAPING REVIEW IS LIMITED TO NEIGHBORHOOD TYPE. THE SAME APPLIES TO MINI PARKS, UNLESS PLAY EQUIPMENT INVOLVED WHICH WOULD BE REVIEWED FOR SAFETY.

[REFER TO 10/10/05 "CHANGES IN APPROVED LANDSCAPING IN PARK DRIVE AND OTHER AREAS" RESOLUTION FROM MDT/PGC MEETING MINUTES]

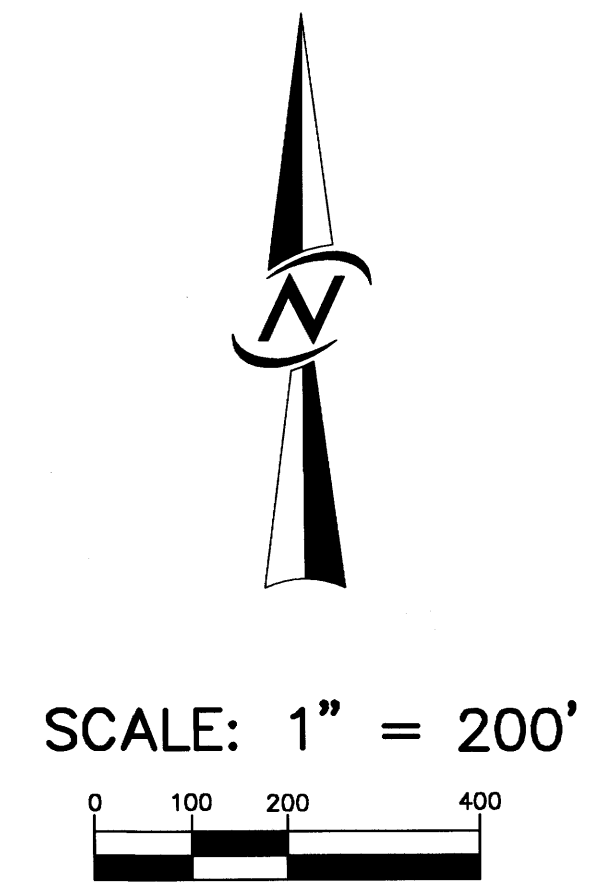
N88°02'05"W ALONG THE NORTH LINE OF THE NORTHEAST QUARTER OF SECTION 27-24-6 PER CITY OF ISSAQUAH SHORT PLAT NO. SP03-0091H, REC. NO. 20031022900002 (REF. 1, SHT 2).

(PER DAVID EVANS AND ASSOCIATES)  
NAD 83/91 BASED ON GPS SURVEY CONSTRAINED TO N.G.S. STATION "MERCIA" LOCATED IN BELLEVUE,  
WASHINGTON, AND THREE EXISTING DAVID EVANS AND ASSOCIATES CONTROL POINTS LOCATED ALONG  
INTERSTATE 90 IN ISSAQUAH, WASHINGTON.

(PER DAVID EVANS AND ASSOCIATES)  
NAVD 88 BASED ON N.G.S. STATION "MERCIA" LOCATED IN BELLEVUE, WASHINGTON.

D-13088, SHT 2 OF 23





**UNDERGROUND LOCATOR SERVICE**  
CALL BEFORE YOU DIG!  
1-800-424-5555

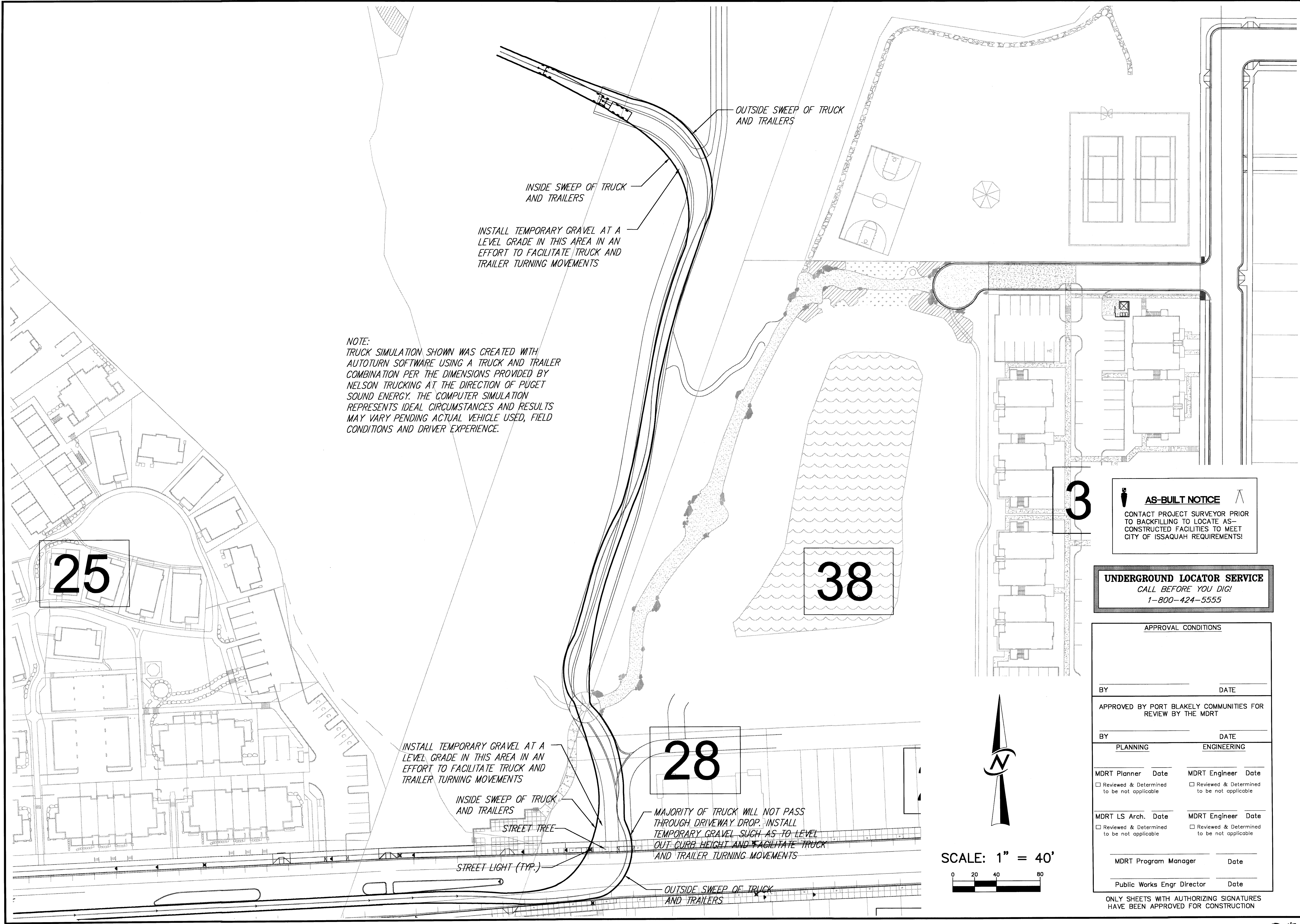
ONLY SHEETS WITH AUTHORIZING SIGNATURES  
HAVE BEEN APPROVED FOR CONSTRUCTION

D-13088, SHT 3 OF 23









**AS-BUILT NOTICE**  
CONTACT PROJECT SURVEYOR PRIOR TO BACKFILLING TO LOCATE AS-CONSTRUCTED FACILITIES TO MEET CITY OF ISSAQUAH REQUIREMENTS!

**UNDERGROUND LOCATOR SERVICE**  
CALL BEFORE YOU DIG!  
1-800-424-5555

APPROVAL CONDITIONS			
BY _____		DATE _____	
APPROVED BY PORT BLAKELY COMMUNITIES FOR REVIEW BY THE MDRT			
BY _____		DATE _____	
PLANNING		ENGINEERING	
MDRT Planner	Date	MDRT Engineer	Date
<input type="checkbox"/> Reviewed & Determined to be not applicable		<input type="checkbox"/> Reviewed & Determined to be not applicable	
MDRT LS Arch.	Date	MDRT Engineer	Date
<input type="checkbox"/> Reviewed & Determined to be not applicable		<input type="checkbox"/> Reviewed & Determined to be not applicable	
MDRT Program Manager		Date	
Public Works Engr Director		Date	

ONLY SHEETS WITH AUTHORIZING SIGNATURES HAVE BEEN APPROVED FOR CONSTRUCTION

**TRUCK TURNING MOVEMENT EXHIBIT**

**P.S.E. ACCESS ROAD IMPROVEMENTS**

**ISSAQUAH HIGHLANDS**  
LIVING GREEN™

Port Blakely Communities, Inc.  
1011 NE High Street, Suite 200  
Issaquah, Washington 98029

PUB No. 07-XXXIH

PROJECT NUMBER  
**01111**

DRAWING  
**C1.05**

SHEET **5** OF **7**

DESIGNED S.R.B.  
DRAWN C.A.F.  
CHECKED E.T.J.  
DATE 10/31/07  
VERIFY SCALE  
BAR IS ONE INCH ON ORIGINAL DRAWING

SCALE: 1" = 20'

**CORE DESIGN**  
ENGINEERING · PLANNING · SURVEYING

14711 NE 29th Place Suite 101  
Bellevue, Washington 98007  
425.885.7977 Fax 425.885.7943

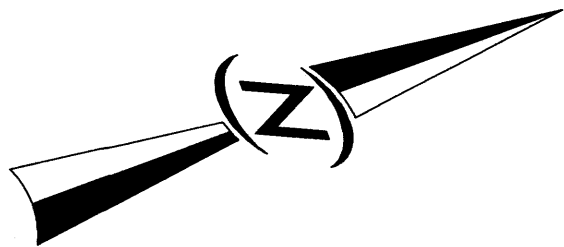
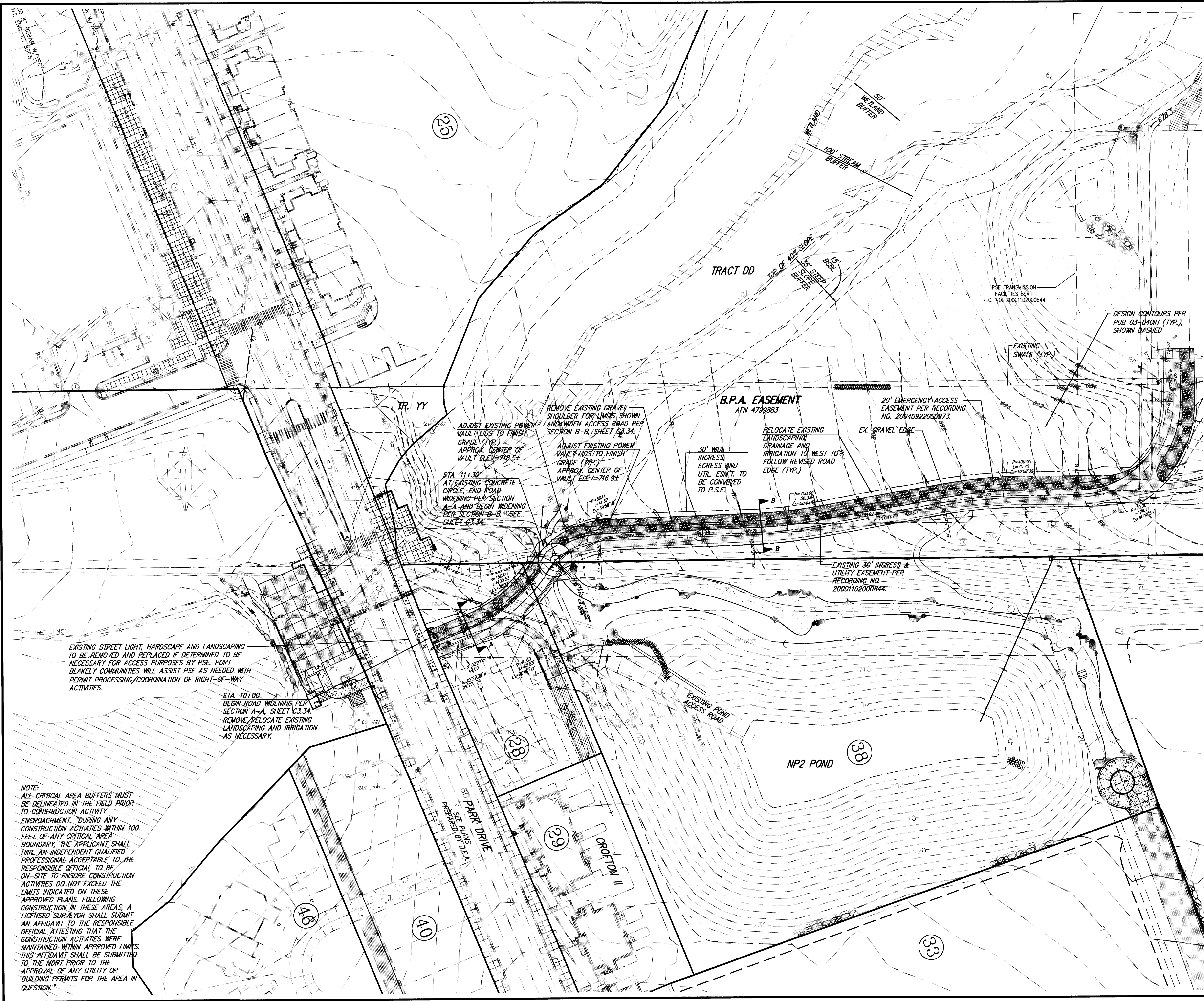
**REVISION**

NO.	DATE	ADDED NOTES PER PSE COMMENTS
1	10/31/07	

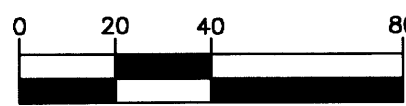
BY CK  
CAF SGB

**SEAL**  
R. M. WILSON  
P.L.L.C.  
REGISTERED PROFESSIONAL  
EXPIRES 7-30-09  
10-31-07





SCALE: 1" = 40'



**BASIS OF BEARING:**

NAD 83/91 - BASED ON GPS SURVEY CONSTRAINED TO N.G.S. STATION "MERCIA" LOCATED IN BELLEVUE, WASHINGTON, AND THREE EXISTING DAVID EVANS AND ASSOCIATES CONTROL POINTS LOCATED ALONG INTERSTATE 90 IN ISSAQUAH, WASHINGTON.

**VERTICAL DATUM:**

NAVD-88 - BASED ON N.G.S. STATION "MERCIA" LOCATED IN BELLEVUE, WASHINGTON

**BENCHMARKS:**

SEE SHEET C1.03

**NOTE:**

1. TOPOGRAPHIC MAPPING INFORMATION FOR EBPA VIA FIELD SURVEY OCTOBER, 2002 BY CORE DESIGN, CONCEPT ENGINEERS AND DAVID EVANS AND ASSOCIATES.
2. DASHED EXISTING GROUND CONTOURS SHOWN BEYOND LIMITS OF EXISTING PLACEMENT ARE BASED ON ENGINEERS VISUAL OBSERVATIONS OF SITE TOPOGRAPHY AND ARE NOT CONSIDERED TO BE ACCURATE AS AN ACTUAL SURVEY.

**LEGEND**

COAL MINE HAZARD AREA

**APPROVAL CONDITIONS**

BY \_\_\_\_\_ DATE \_\_\_\_\_

APPROVED BY PORT BLAKELY COMMUNITIES FOR REVIEW BY THE MDRT

BY \_\_\_\_\_ DATE \_\_\_\_\_

PLANNING ENGINEERING

MDRT Planner Date MDRT Engineer Date  
☐ Reviewed & Determined to be not applicable ☐ Reviewed & Determined to be not applicable

MDRT LS Arch. Date MDRT Engineer Date  
☐ Reviewed & Determined to be not applicable ☐ Reviewed & Determined to be not applicable

MDRT Program Manager \_\_\_\_\_ Date \_\_\_\_\_

Public Works Engr Director \_\_\_\_\_ Date \_\_\_\_\_

ONLY SHEETS WITH AUTHORIZING SIGNATURES HAVE BEEN APPROVED FOR CONSTRUCTION

**AS-BUILT NOTICE**

CONTACT PROJECT SURVEYOR PRIOR TO BACKFILLING TO LOCATE AS-CONSTRUCTED FACILITIES TO MEET CITY OF ISSAQUAH REQUIREMENTS!

**UNDERGROUND LOCATOR SERVICE**

CALL BEFORE YOU DIG!  
1-800-424-5555

14711 NE 29th Place Suite 101  
Bellevue, Washington 98007  
425.885.7877 Fax 425.885.7963

**CORE DESIGN**  
ENGINEERING · PLANNING · SURVEYING

DESIGNED E.T.J.  
DRAWN C.A.F.  
CHECKED E.T.J.  
DATE 10/31/07  
VERIFY SCALE  
BAR IS ONE INCH  
ON ORIGINAL  
DRAWING

1"=40'

ROAD & GRADING PLAN  
P.S.E. ACCESS ROAD IMPROVEMENTS

ISSAQUAH HIGHLANDS  
LIVING GREEN®

Port Blakely Communities, Inc.  
1011 NE High Street, Suite 200  
Issaquah, Washington 98029

PROJECT NUMBER  
01111

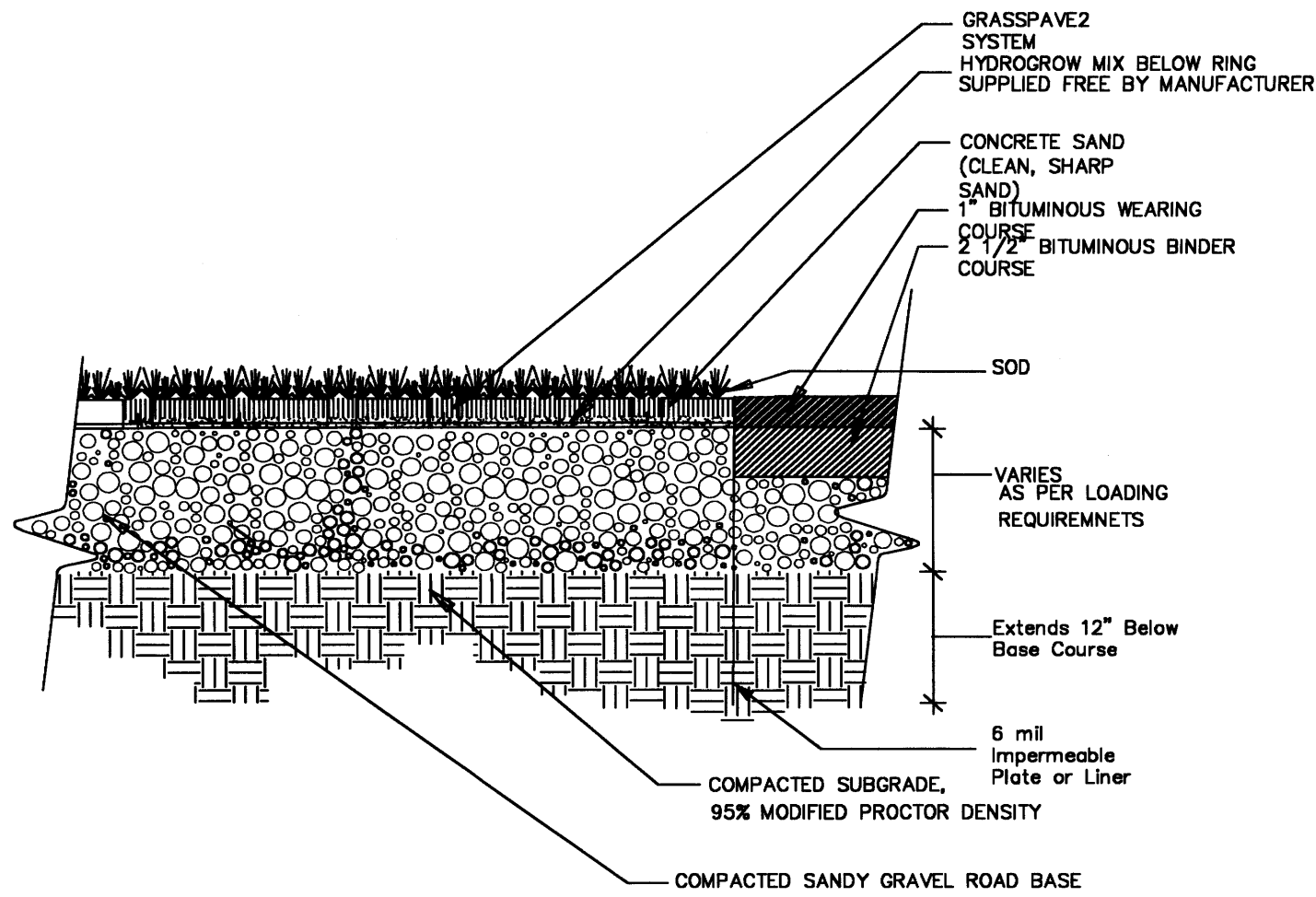
DRAWING  
C3.01

SHEET 6 OF 7

10/31/07  
NO. DATE REVISION  
1 10/31/07  
ADDED NOTES PER PSE COMMENTS

CAF SRB  
BY





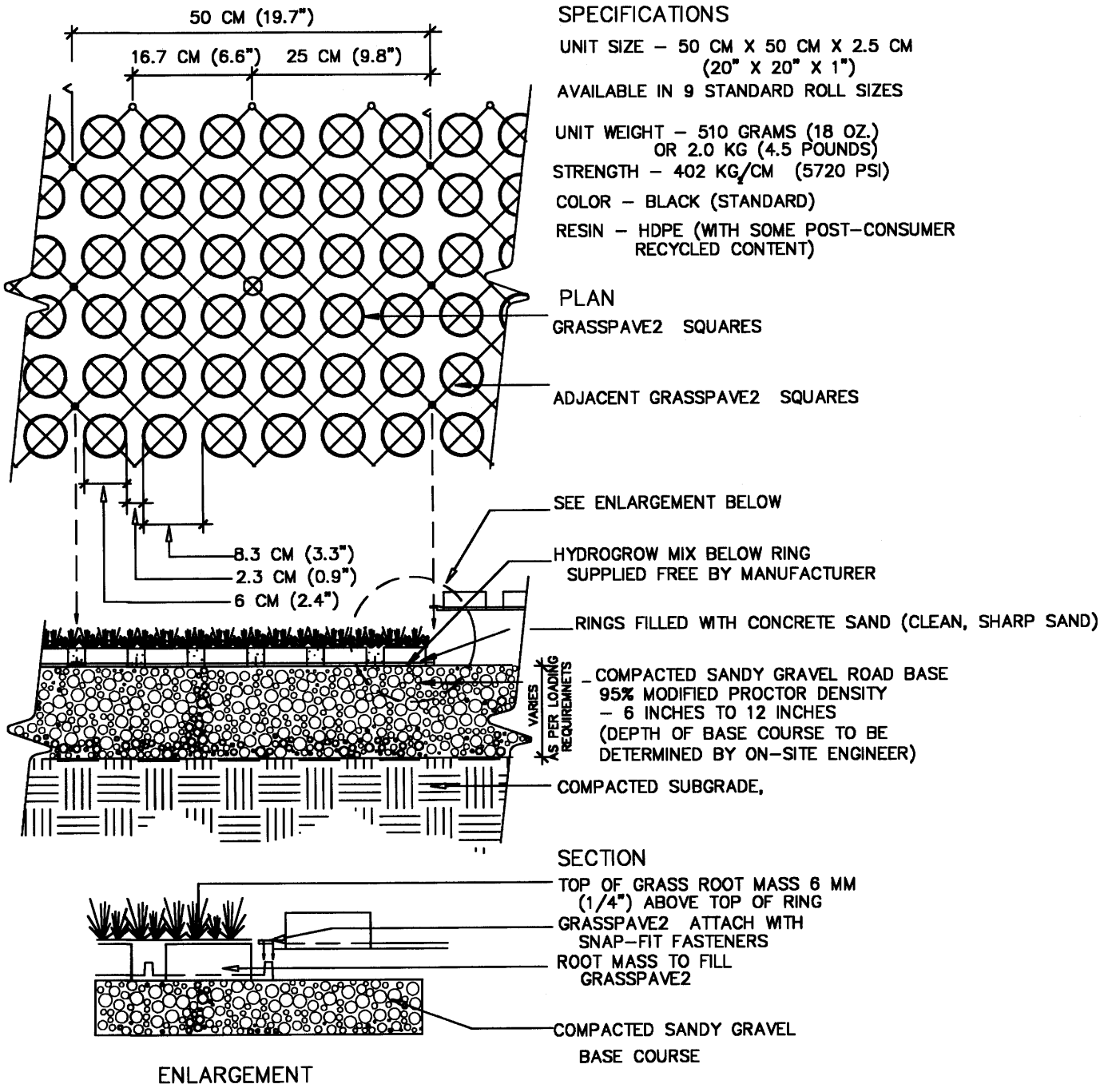
NOTE: GRASS/PLANT TYPES SHALL BE SPECIFIED BY A LANDSCAPE ARCHITECT OR LANDSCAPE DESIGNER

GRASSPAVE2 AT ASPHALT EDGE

CHOOSE THIS PRODUCT FOR REINFORCING GRASS PARKING SURFACES

NOT TO SCALE  
Invisible Structures, Inc.  
1800 Jackson St., Suite 310  
Golden, Colorado 80401  
800-233-1510 or 303-233-8383  
FAX: 800-233-1522 or 303-233-8282  
www.invisiblestructures.com  
Rev. 08/04

1600 Jackson St., Suite 310  
GOLDEN, COLORADO 80401  
800-233-1510 OR 303-233-8383  
FAX: 800-233-1522 OR  
303-233-8282  
www.invisiblestructures.com  
Rev. 08/04



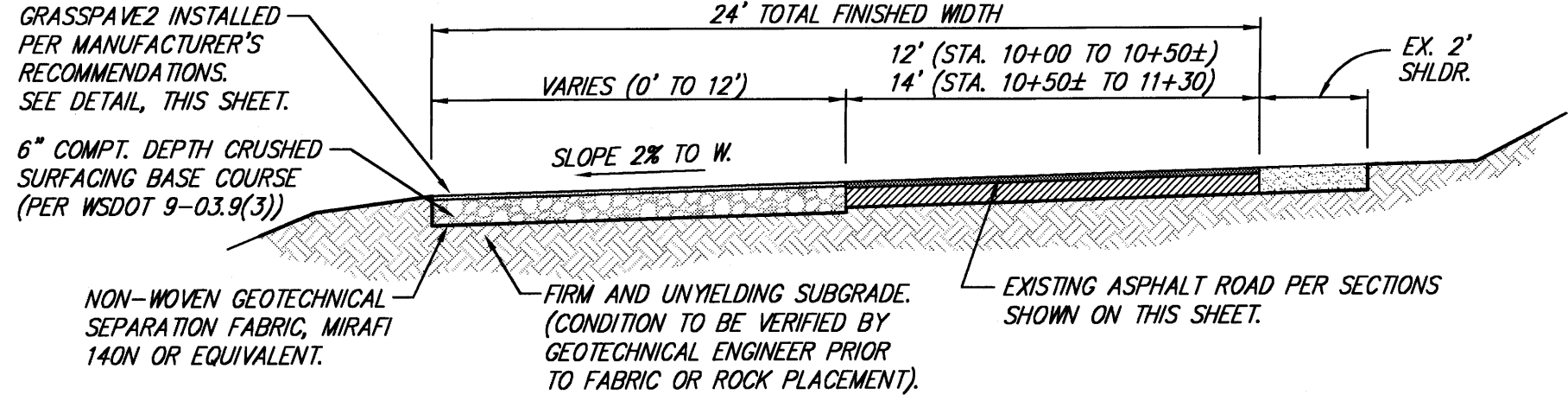
NOTE: GRASS/PLANT TYPES SHALL BE SPECIFIED BY A LANDSCAPE ARCHITECT OR LANDSCAPE DESIGNER

TYPICAL GRASSPAVE2 DETAIL

CHOOSE THIS PRODUCT FOR REINFORCING GRASS WEARING SURFACES

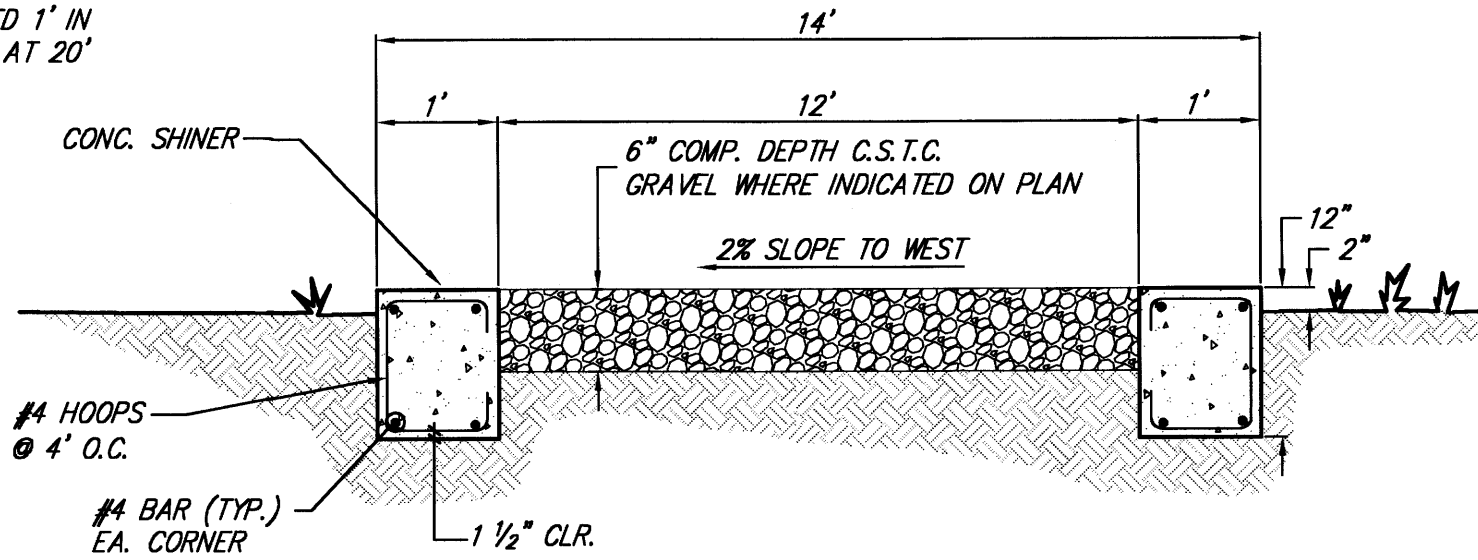
NOT TO SCALE  
Invisible Structures, Inc.  
GPO:ELDW

1600 Jackson St., Suite 310  
GOLDEN, COLORADO 80401  
800-233-1510 OR 303-233-8383  
FAX: 800-233-1522 OR  
303-233-8282  
www.invisiblestructures.com  
rev. 10/05



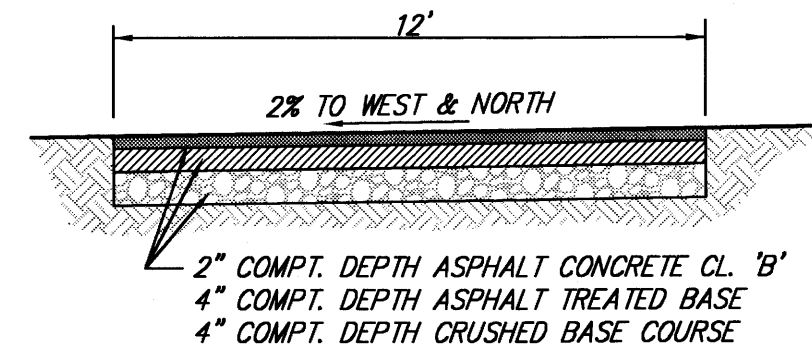
SECTION A-A - ACCESS ROAD WIDENING DETAIL

NO SCALE



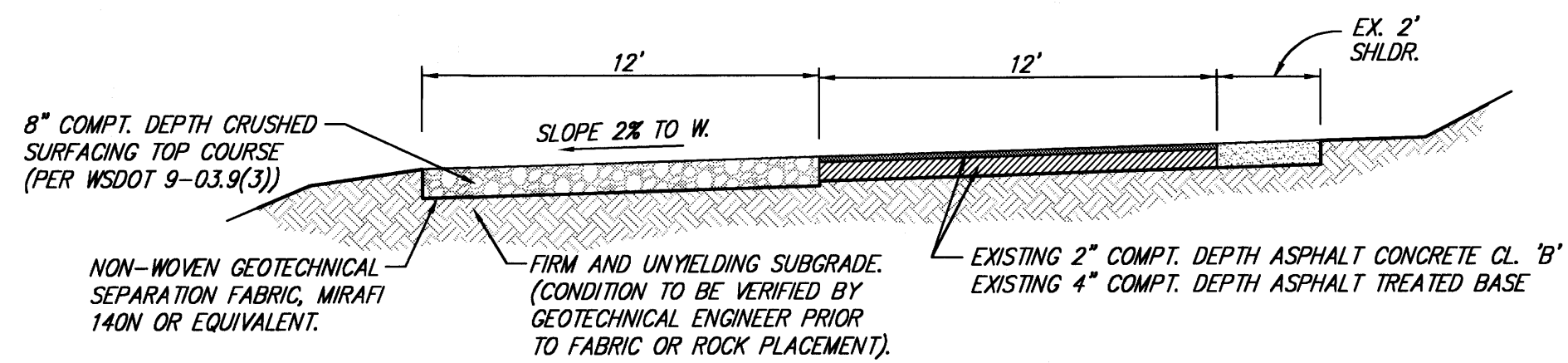
EXISTING ACCESS ROAD  
SECTION A-A (STA. 10+50± TO CONC. CIRCLE)

NO SCALE



EXISTING ACCESS ROAD  
SECTION A-A (STA. 10+00 TO STA. 10+50±)

NO SCALE



SECTION B-B - ACCESS ROAD WIDENING DETAIL

NO SCALE

AS-BUILT NOTICE

CONTACT PROJECT SURVEYOR PRIOR TO BACKFILLING TO LOCATE AS-CONSTRUCTED FACILITIES TO MEET CITY OF ISSAQUAH REQUIREMENTS!

UNDERGROUND LOCATOR SERVICE

CALL BEFORE YOU DIG!  
1-800-424-5555

APPROVAL CONDITIONS

BY \_\_\_\_\_ DATE \_\_\_\_\_

APPROVED BY PORT BLAKELY COMMUNITIES FOR REVIEW BY THE MDRT

BY \_\_\_\_\_ DATE \_\_\_\_\_

PLANNING

MDRT Planner Date  
☐ Reviewed & Determined to be not applicable

MDRT LS Arch. Date  
☐ Reviewed & Determined to be not applicable

MDRT Program Manager Date

Public Works Engr Director Date

ENGINEERING

MDRT Engineer Date  
☐ Reviewed & Determined to be not applicable

MDRT Engineer Date  
☐ Reviewed & Determined to be not applicable

ONLY SHEETS WITH AUTHORIZING SIGNATURES HAVE BEEN APPROVED FOR CONSTRUCTION

SITE DETAILS

P.S.E. ACCESS ROAD IMPROVEMENTS



Port Blakely Communities, Inc.  
1011 NE High Street, Suite 200  
Issaquah, Washington 98029

PROJECT NUMBER

01111

DRAWING

C3.31

SHEET 7 OF 7

SCALE: N.T.S.

DESIGNED S.R.B.

DRAWN C.A.F.

CHECKED E.T.J.

DATE 10/31/07

VERIFY SCALE

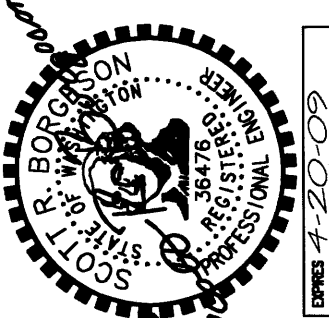
BAR IS ONE INCH ON ORIGINAL DRAWING

0" 1"



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Bellevue, Washington 98007  
425.885.7877 Fax 425.885.7943

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PUB No. 07-XXXIH

REVISION

DATE

NO.

1

10/31/07

ADDED NOTES PER PSE COMMENTS

CAF

BY

SB

10-21-07

10-21-07

10-21-07

10-21-07

10-21-07

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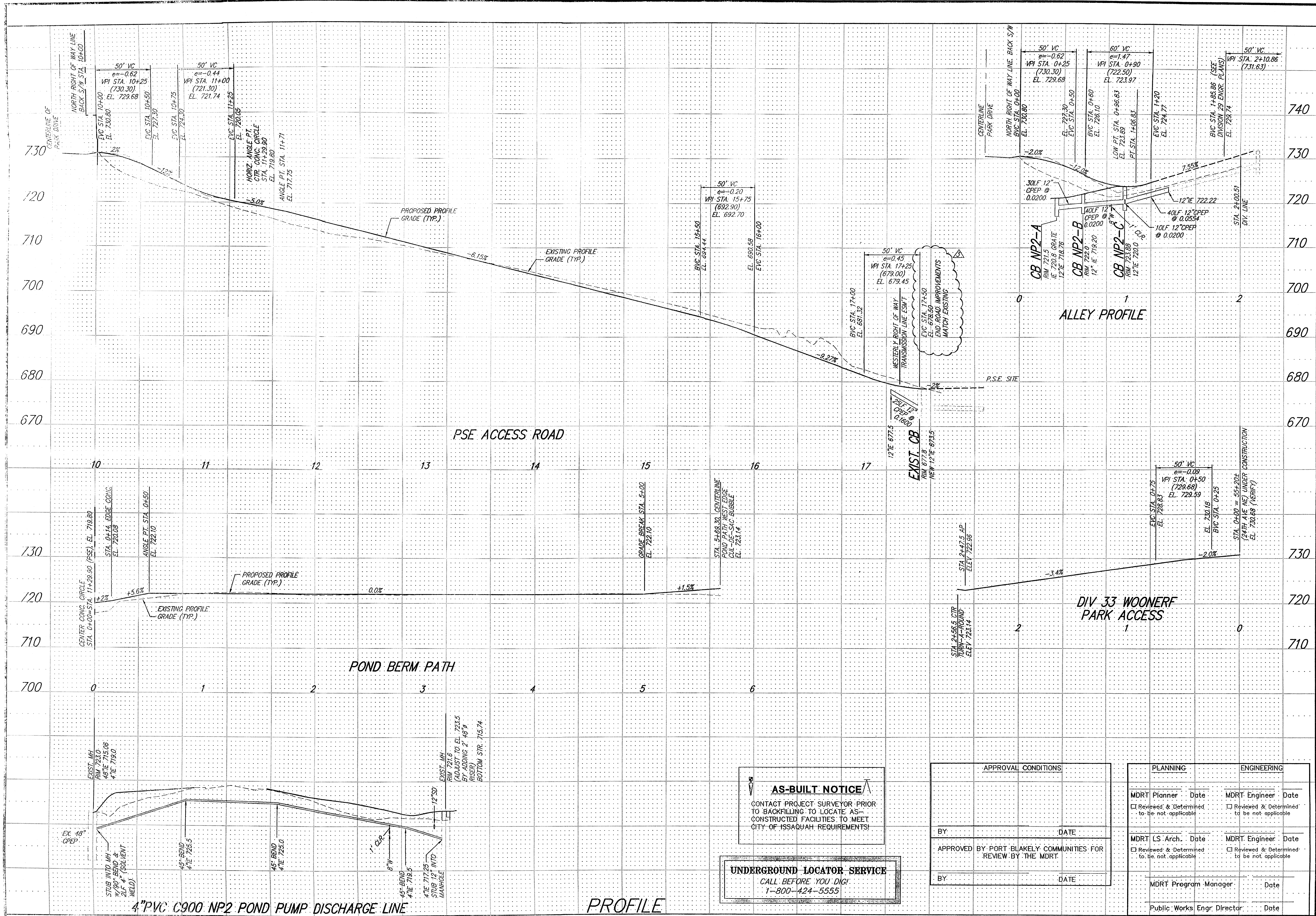
10-21-07

10-21-07

10-21-07

10-21-07





**ISSAQUAH HIGHLANDS**

**B.P.A. AND PARK ACCESS ROAD PROFILE**  
**PARK DRIVE & BPA IMPROVEMENTS**  
**VOLUMES 1 & 2**  
**SURFACE IMPROVEMENTS & DRY UTILITIES**

PROJECT NUMBER  
**01111**

DRAWING  
**C3.21**

D-13688-SHT 8 of 23

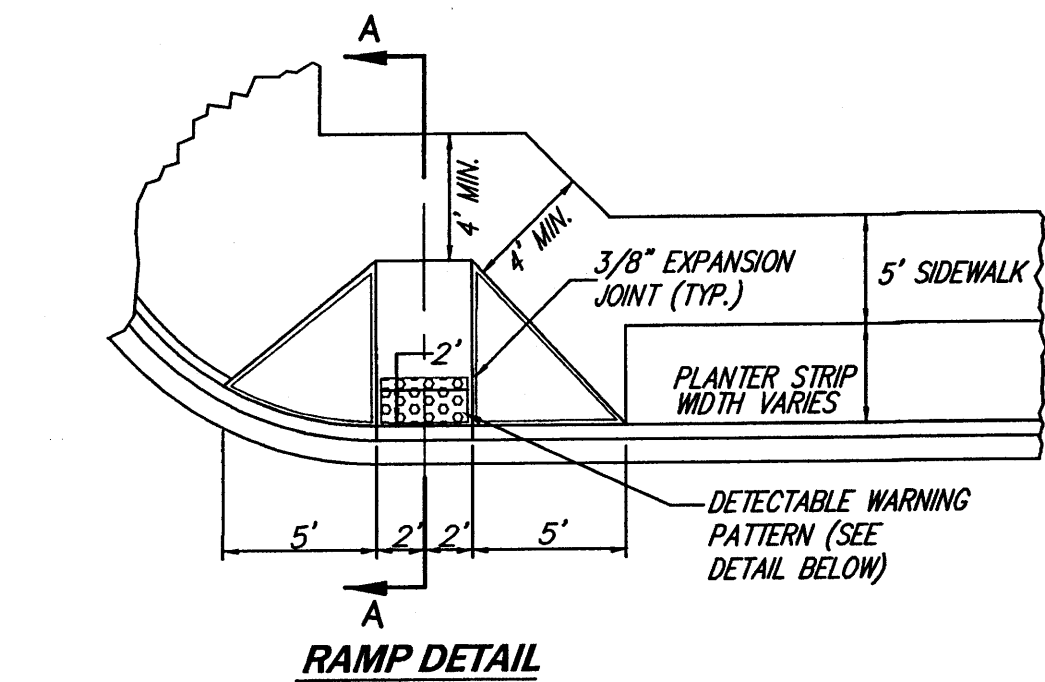
14711 NE 29th Place Suite 101  
Bellevue, Washington 98007  
425-8857877 Fax 425-8857963

**CORE DESIGN**  
ENGINEERING • PLANNING • SURVEYING

SCALE: 1"=40'  
DESIGNED E.T.J.  
DRAWN L.G. WRIGHT  
CHECKED E.T.J.  
DATE 11-04-03  
VERIFY SCALE  
BAR IS ONE INCH ON ORIGINAL DRAWING  
0"

10/23/03 DESIGN CHANGE #4  
2 7/15/03 REV. PLANS IN RESPONSE TO MDRT & PBC LMS ETC  
1 4/8/02 REV. PLANS IN RESPONSE TO MDRT  
NO. DATE REVISION BY OK

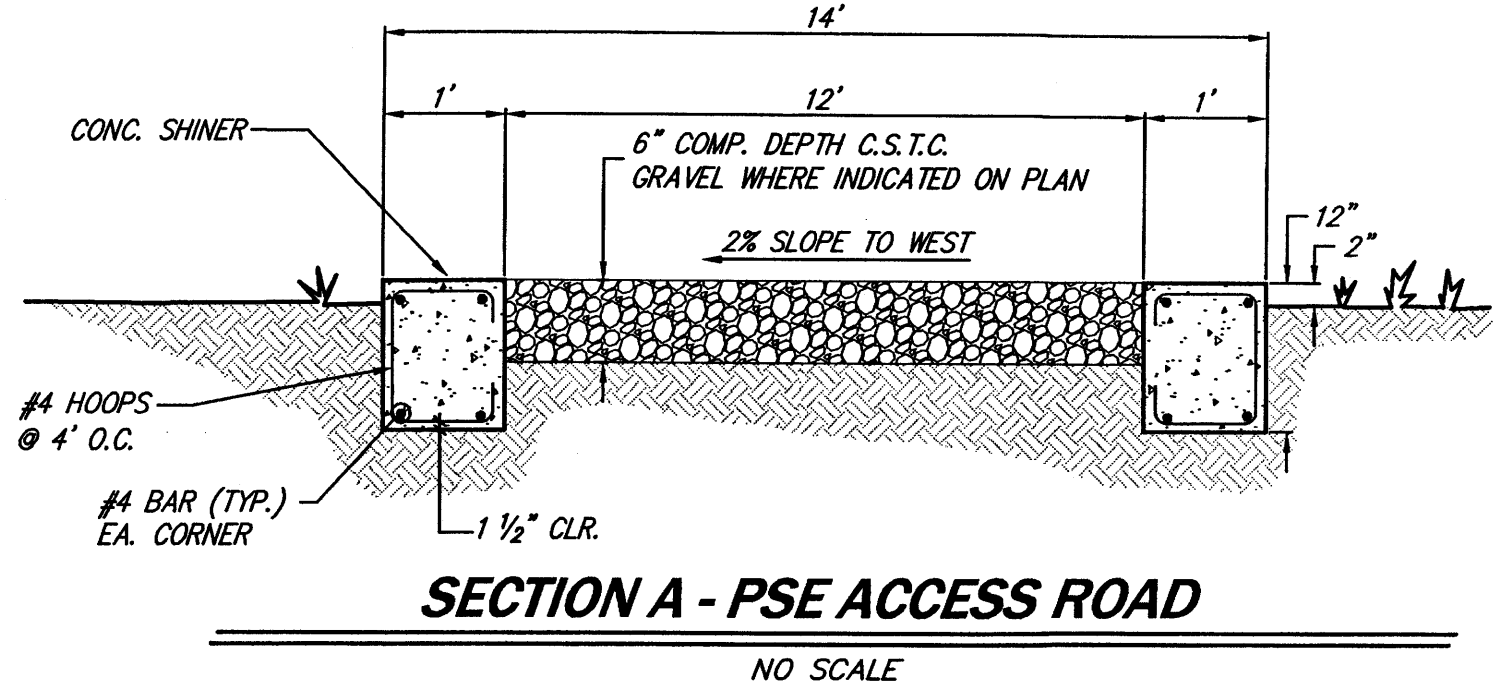




- NOTES:
1. AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS.
  2. DETECTABLE WARNING PATTERNS MAY BE CREATED BY ANY METHOD THAT WILL ACHIEVE THE TRUNCATED DOME DIMENSIONS AND SPACING SHOWN.
  3. CURB AND GUTTER SHOWN, SEE THE CONTRACT PLANS FOR THE CURB DESIGN SPECIFIED.
  4. RAMP SLOPES SHALL NOT BE GREATER THAN 12%:1V.

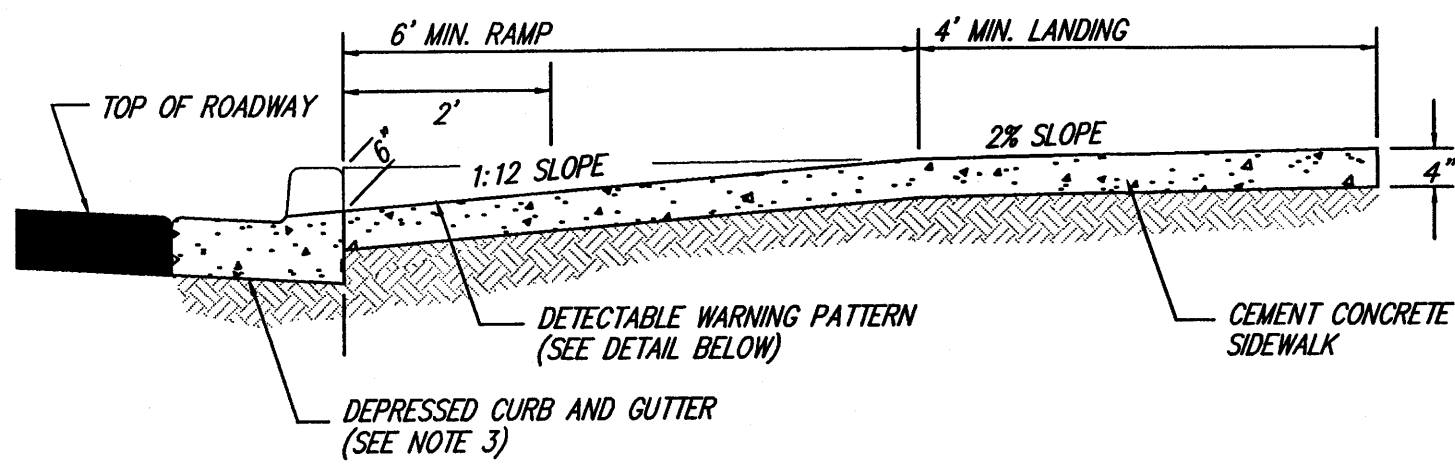
**MOUNTABLE CEMENT CONC. CURB AND GUTTER**  
NO SCALE

**TYPE 'A' VERTICAL CURB AND GUTTER DETAIL**  
NO SCALE

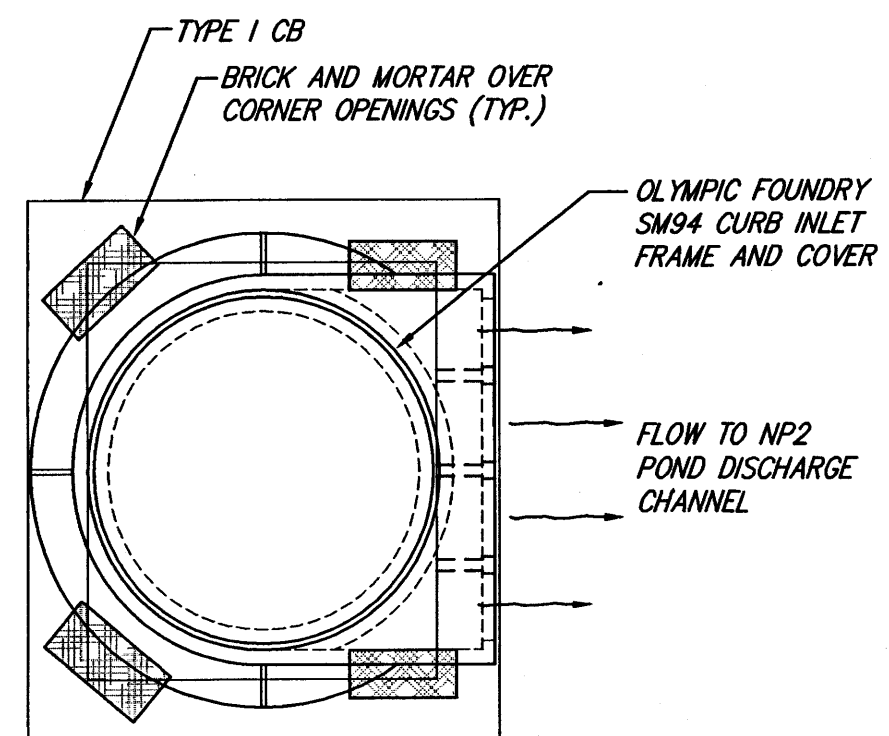


**SECTION A - PSE ACCESS ROAD**

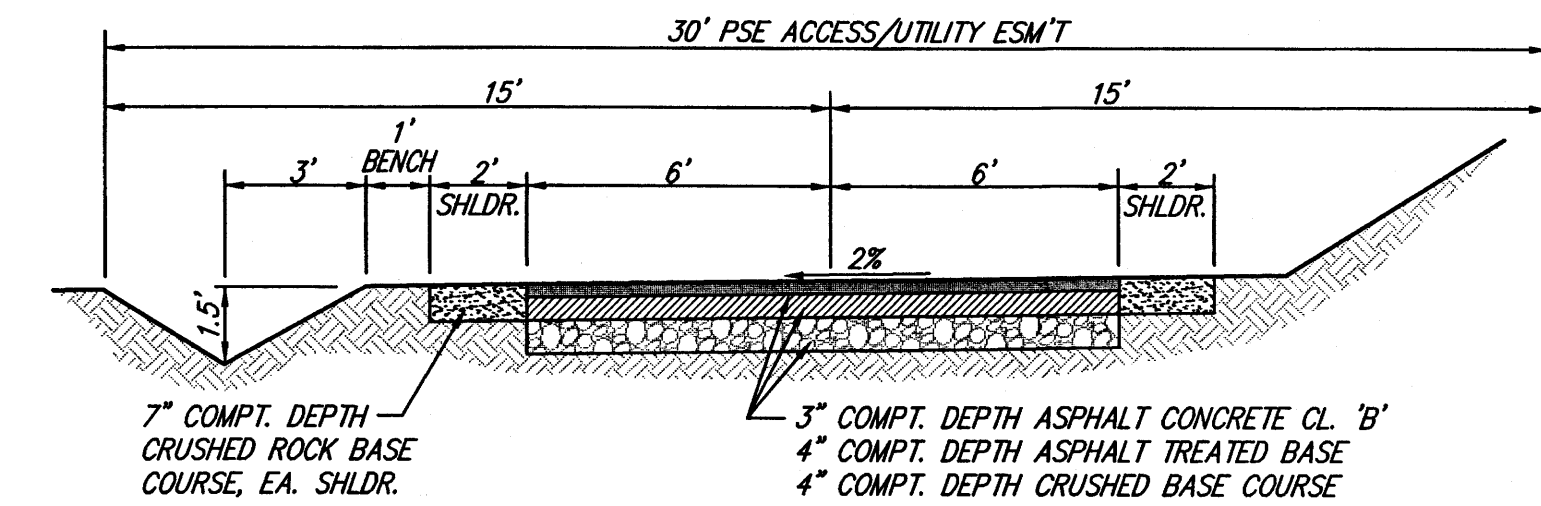
NO SCALE



**SECTION A-A SIDEWALK RAMP DETAIL**  
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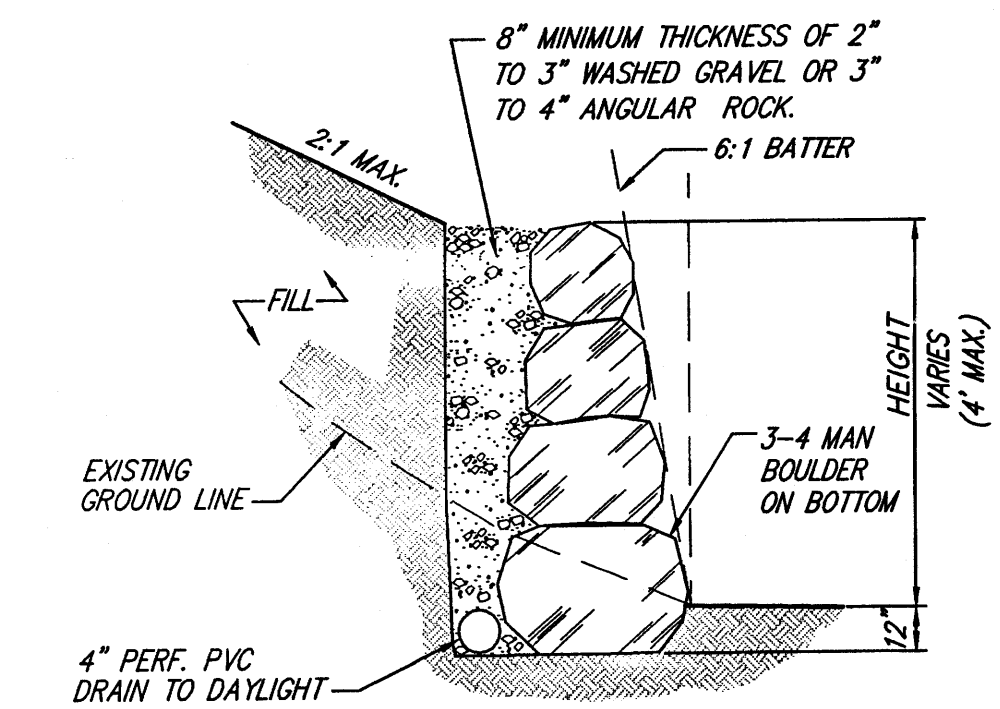


**NP2 POND DISCHARGE CHANNEL**  
NO SCALE



**SECTION B - PSE ACCESS ROAD**

NO SCALE

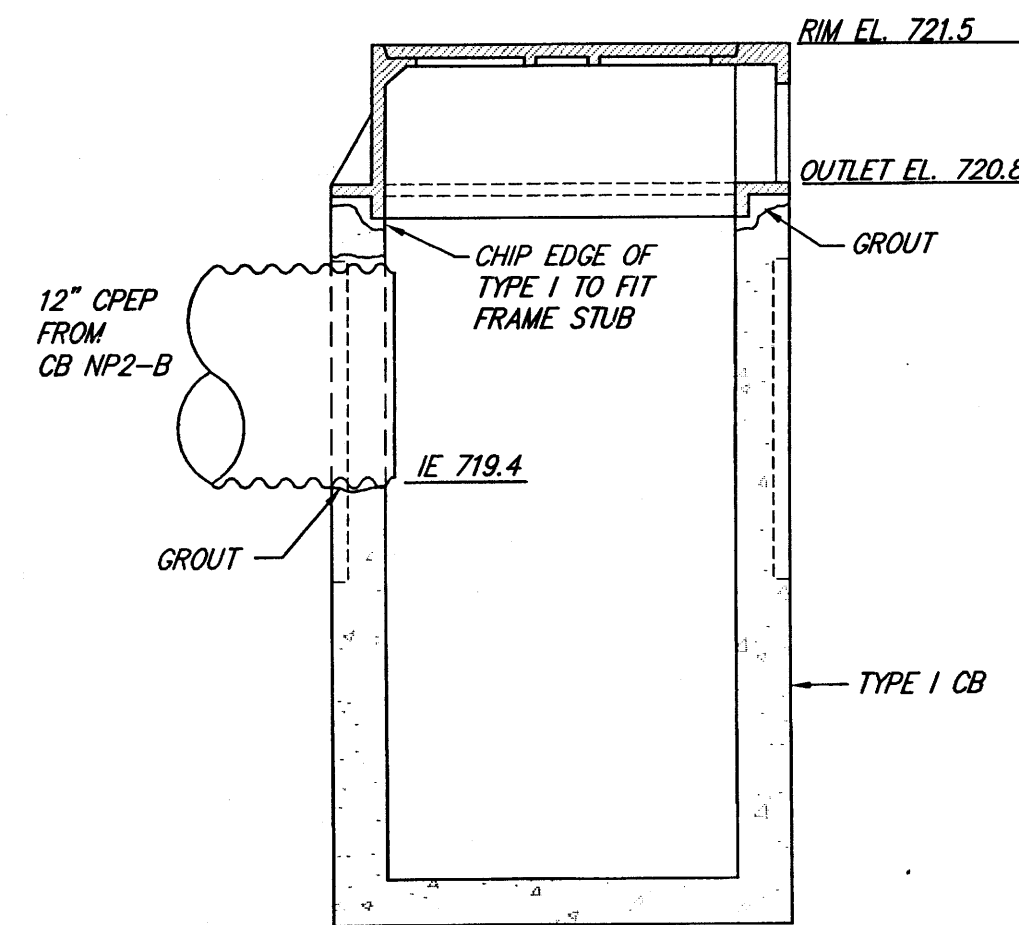


**ROCKERY GENERAL NOTES**

1. THE ROCKERY WALL SHALL BE INSTALLED WITH A SMOOTH FACE.
2. THE LONG DIMENSIONS OF THE ROCKS SHALL BE PERPENDICULAR TO THE WALL FACE.
3. THE ROCK SHALL BE PLACED SO AS TO LOCK INTO TWO LOWER ROCKS.
4. THE ROCKERY FOUNDATION SHALL BE INSPECTED AND APPROVED BY THE GEOTECHNICAL ENGINEER PRIOR TO ROCKERY CONSTRUCTION.
5. ROCK SHALL BE SOUND AND HAVE A MINIMUM DENSITY OF 160 POUNDS PER CUBIC FOOT.

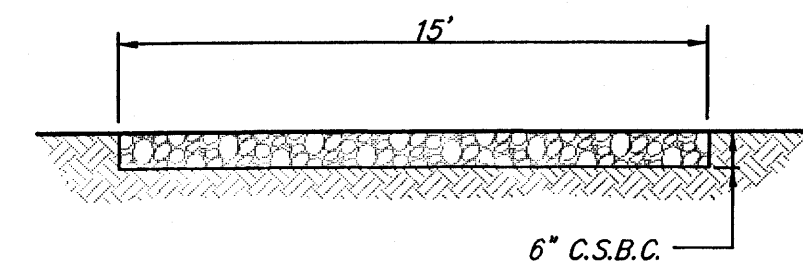
**ROCKERY DETAIL**

NO SCALE



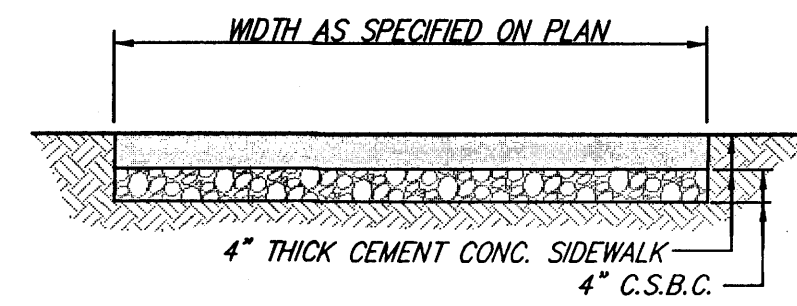
**DETAIL CB NP2-A**

NO SCALE



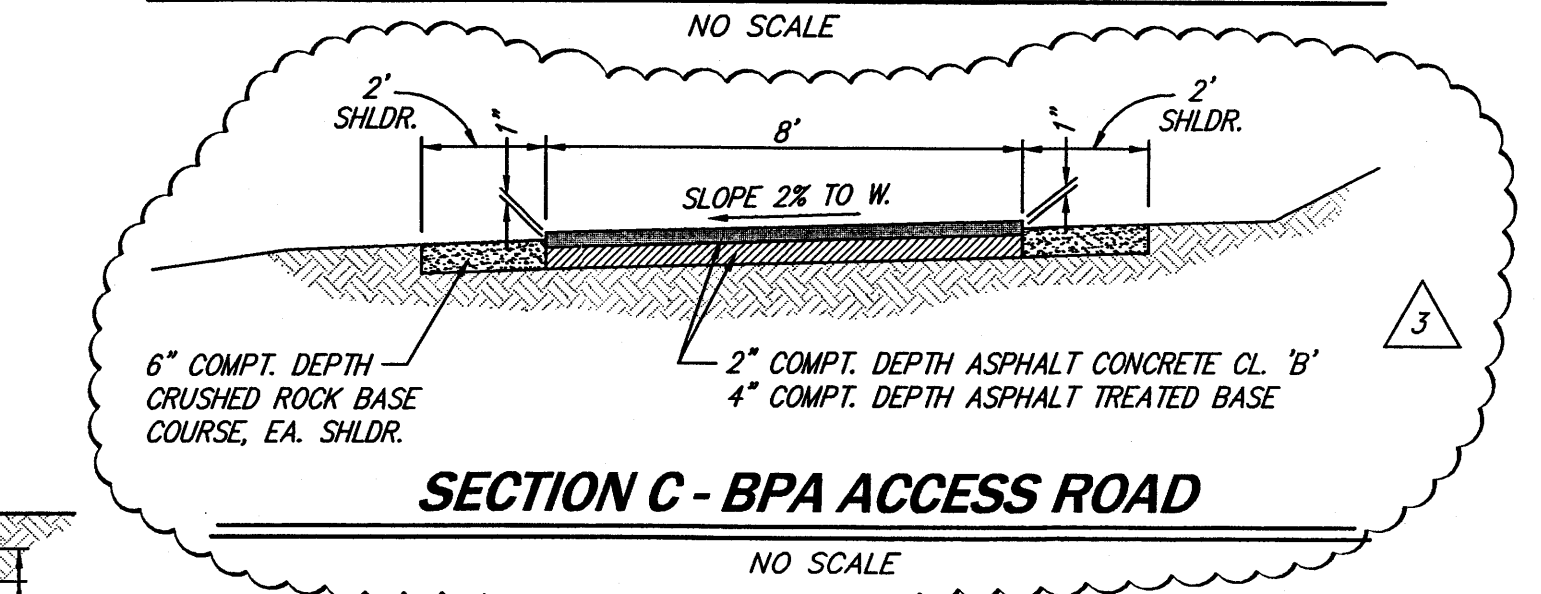
**POND ACCESS ROAD**

NO SCALE



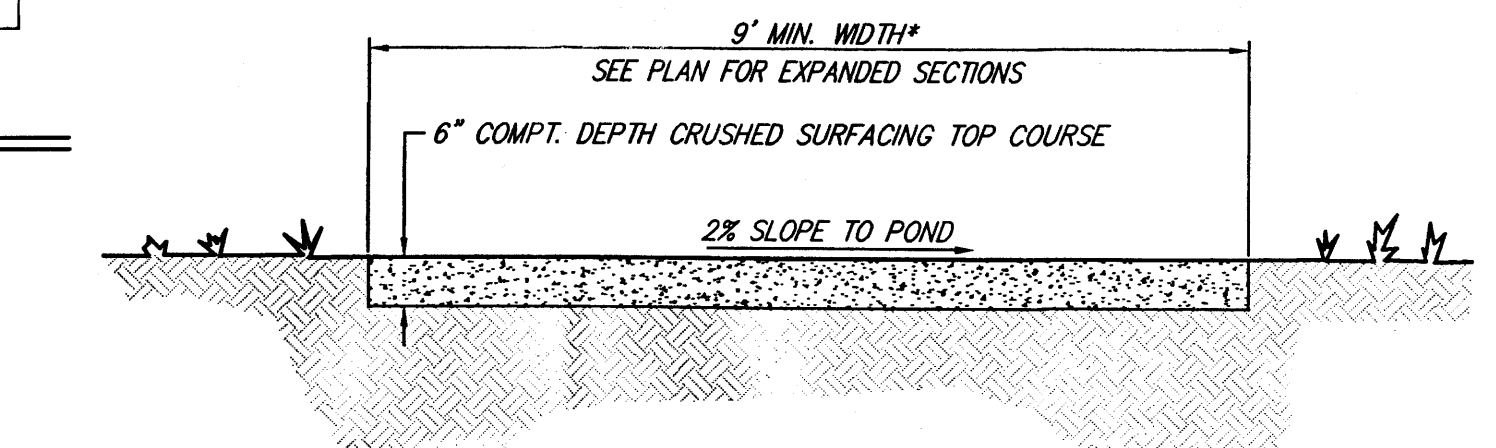
**CONCRETE SIDEWALK**

NO SCALE



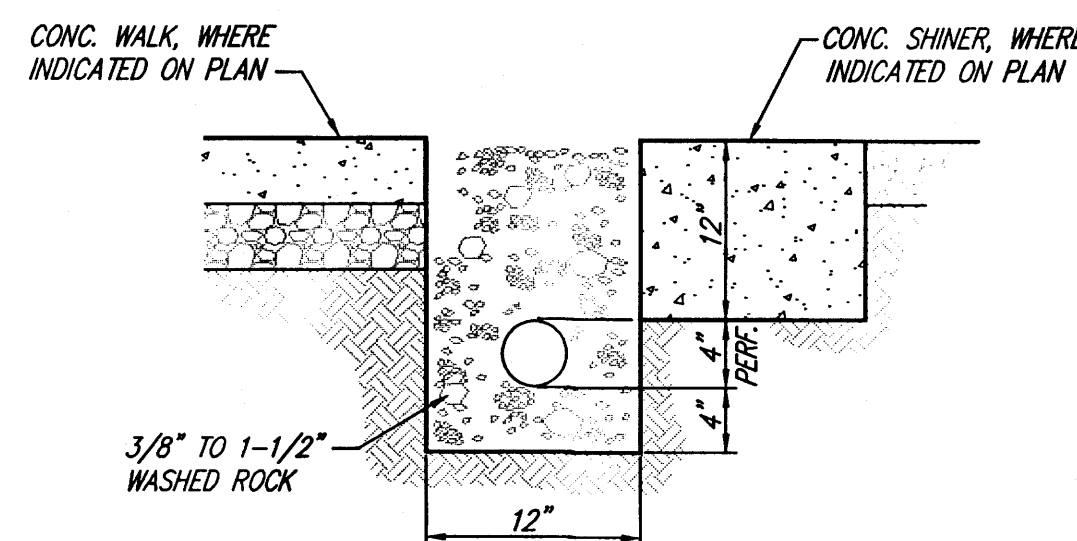
**SECTION C - BPA ACCESS ROAD**

NO SCALE



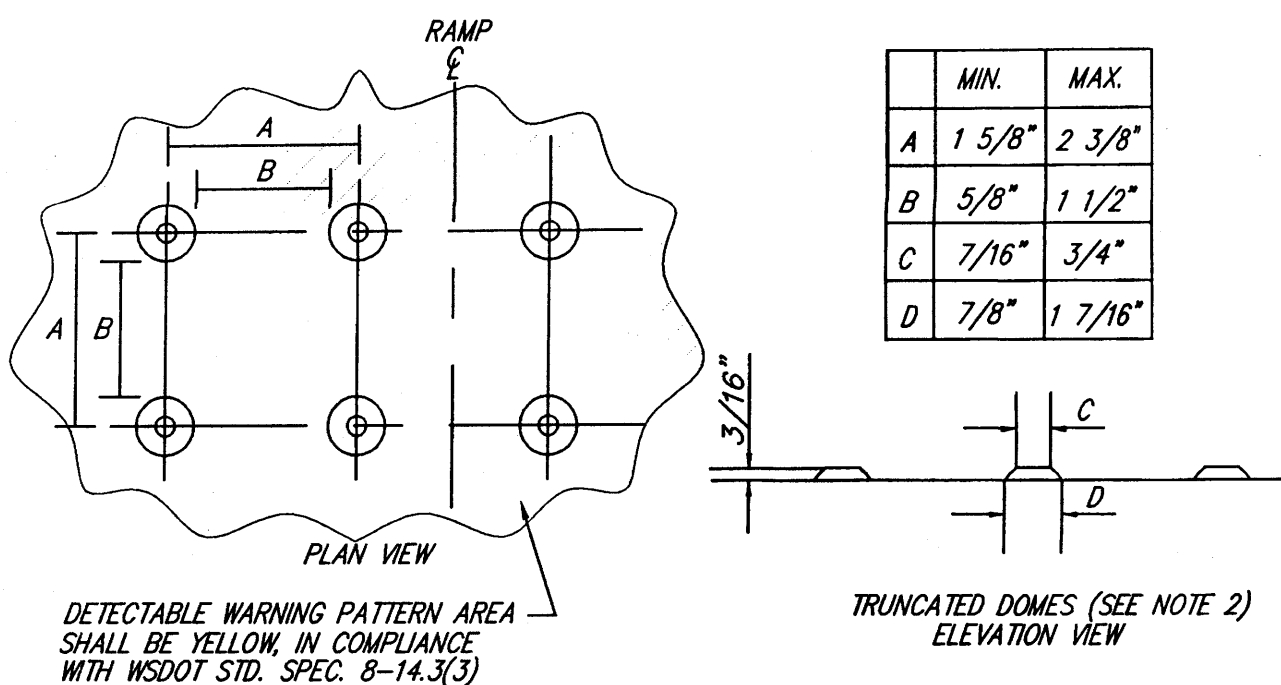
**SECTION D - POND BERM PATH**

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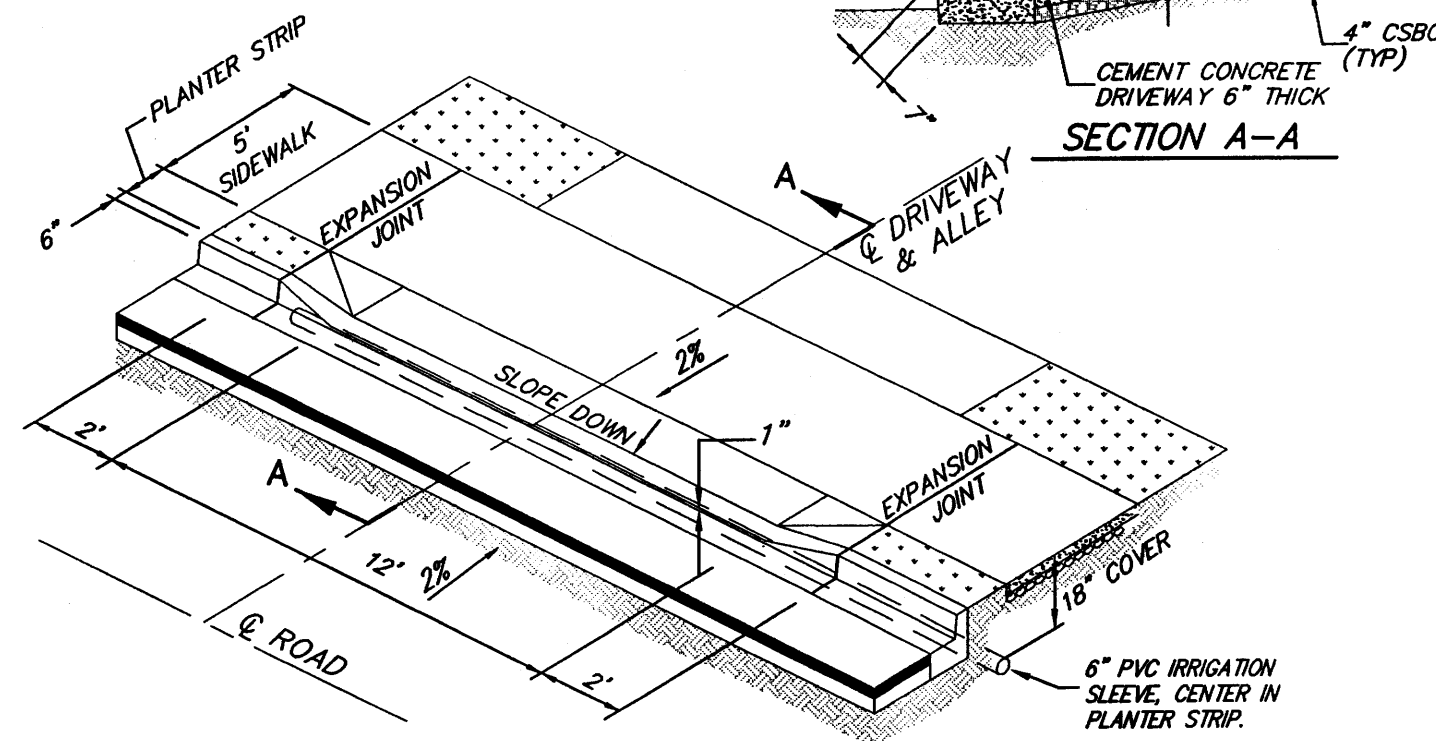
**GRAVEL TRENCH DRAIN**

NO SCALE



**DETECTABLE WARNING PATTERN DETAIL**

NO SCALE



**DRIVEWAY DETAIL**

NO SCALE

NOTE: ENGINEER WILL LOCATE DRIVEWAY FOR ALL LOTS REQUIRING STREET ACCESSES PRIOR TO CONTRACTOR PLACING CURB, GUTTER AND SIDEWALK.

**AS-BUILT NOTICE**

CONTACT PROJECT SURVEYOR PRIOR TO BACKFILLING TO LOCATE AS-CONSTRUCTED FACILITIES TO MEET CITY OF ISSAQUAH REQUIREMENTS!

**UNDERGROUND LOCATOR SERVICE**

CALL BEFORE YOU DIG!  
1-800-424-5555

**APPROVAL CONDITIONS**

BY \_\_\_\_\_ DATE \_\_\_\_\_  
APPROVED BY PORT BLAKELY COMMUNITIES FOR REVIEW BY THE MDRT  
BY \_\_\_\_\_ DATE \_\_\_\_\_

**PLANNING ENGINEERING**

MDRT Planner	Date	MDRT Engineer	Date
<input type="checkbox"/> Reviewed & Determined to be not applicable		<input type="checkbox"/> Reviewed & Determined to be not applicable	
MDRT LS Arch.	Date	MDRT Engineer	Date
<input type="checkbox"/> Reviewed & Determined to be not applicable		<input type="checkbox"/> Reviewed & Determined to be not applicable	
MDRT Program Manager	Date	Public Works Engr Director	Date

ONLY SHEETS WITH AUTHORIZING SIGNATURES HAVE BEEN APPROVED FOR CONSTRUCTION

**SITE DETAILS**  
**PARK DRIVE & BPA IMPROVEMENTS**  
**VOLUMES 1 & 2**  
**SURFACE IMPROVEMENTS & DRY UTILITIES**

PROJECT NUMBER  
**01111**  
DRAWING  
**C3.31**

SHEET 10 OF 17



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Bellevue, Washington 98007  
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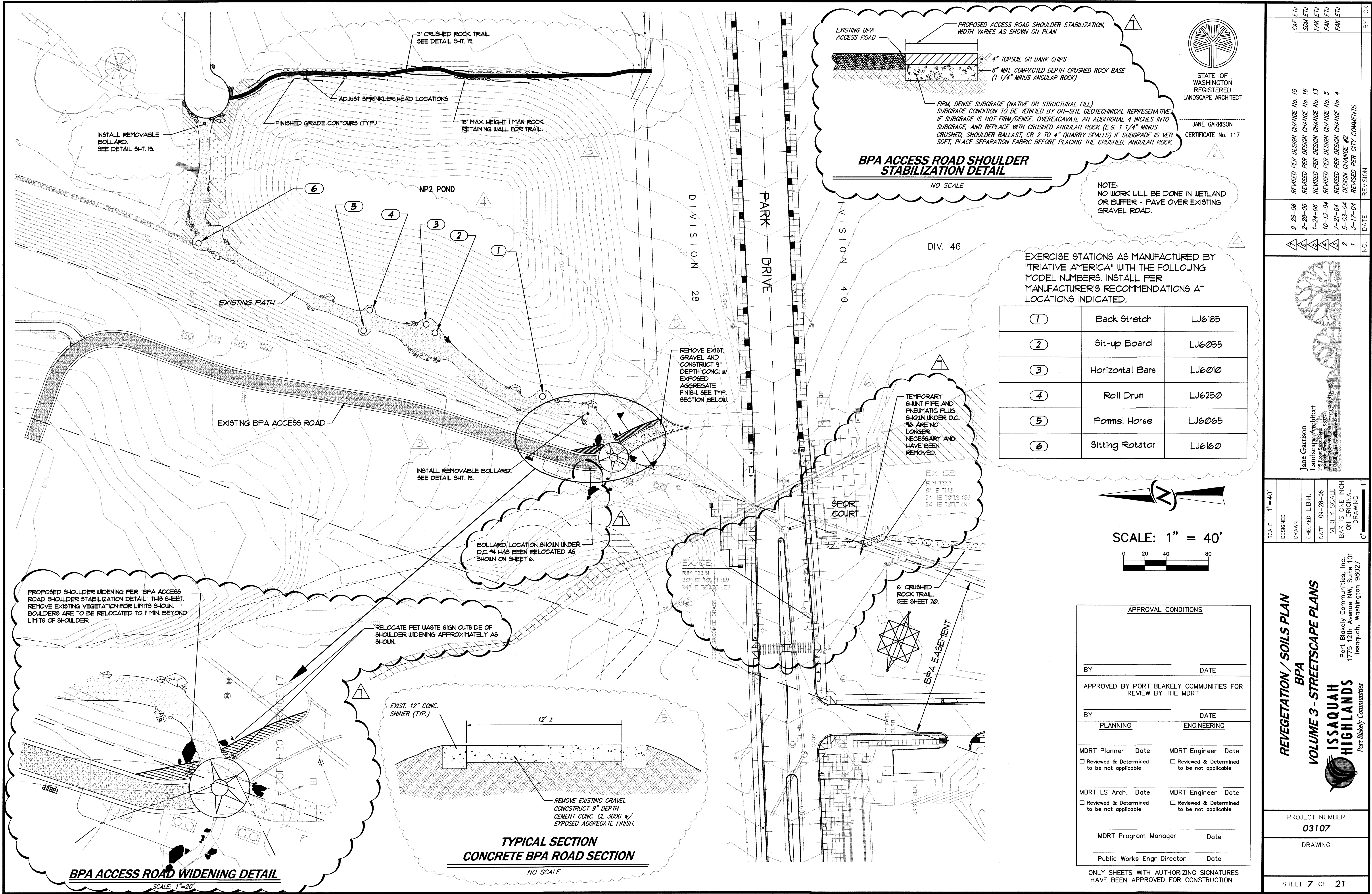
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DESIGNED E.T.J.  
DRAWN L.G. WRIGHT  
CHECKED E.T.J.  
DATE JULY 17, 03  
VERIFY SCALE  
BAR IS ONE INCH ON ORIGINAL DRAWING

**ISSAQUAH HIGHLANDS**

PUB 03-040IH

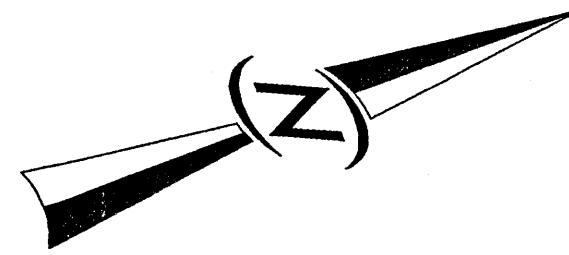
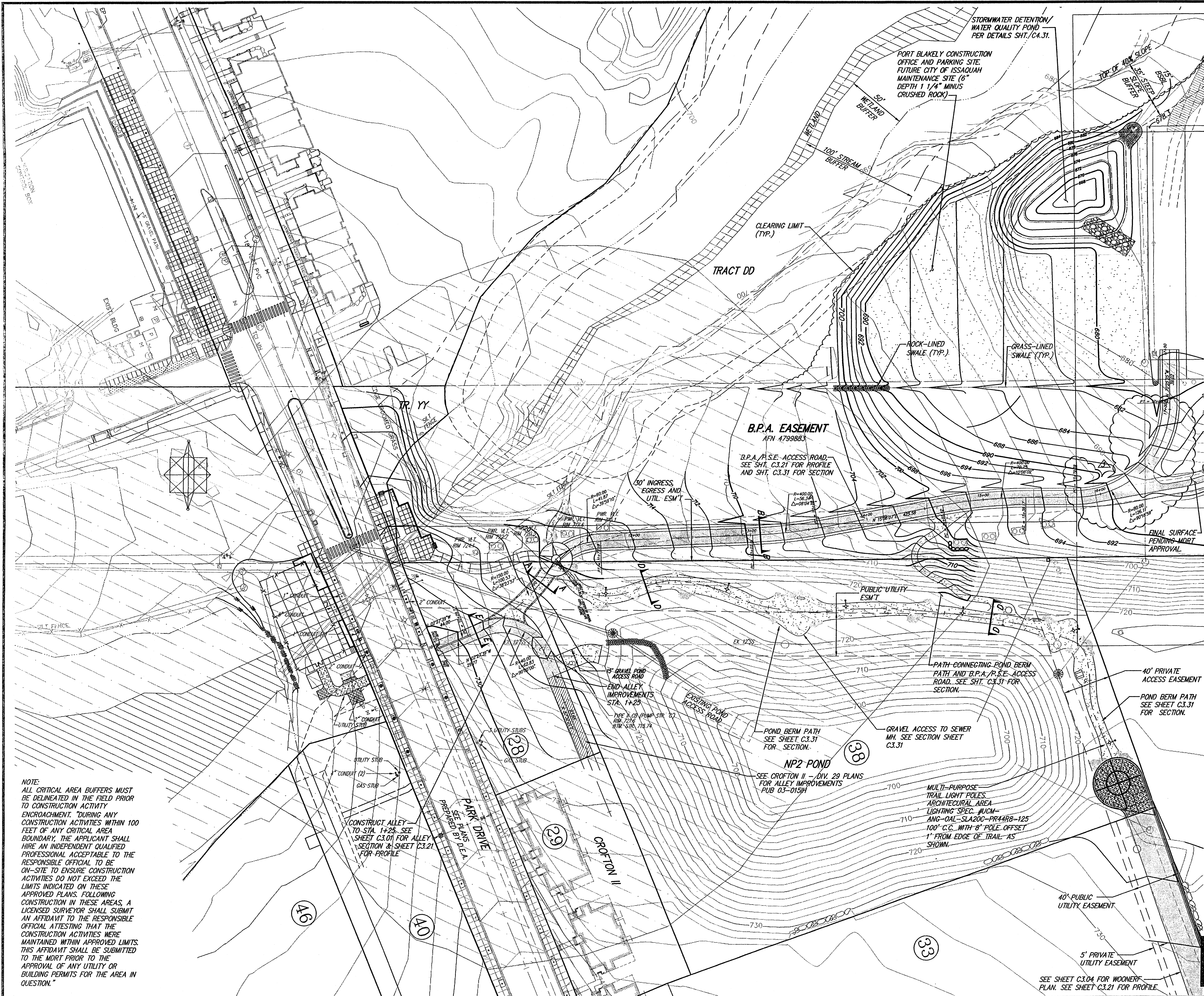


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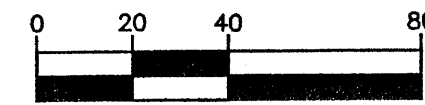


D-13088, SHT 10 OF 23





SCALE: 1" = 40'



**BASIS OF BEARING:**

NAD 83/91 - BASED ON GPS SURVEY  
CONSTRAINED TO N.G.S. STATION "MERCIA"  
LOCATED IN BELLEVUE, WASHINGTON,  
AND THREE EXISTING DAVID EVANS AND  
ASSOCIATES CONTROL POINTS LOCATED  
ALONG INTERSTATE 90 IN ISSAQUAH,  
WASHINGTON.

**VERTICAL DATUM:**

NAVD-88 - BASED ON N.G.S. STATION  
"MERCIA" LOCATED IN BELLEVUE,  
WASHINGTON

**BENCHMARKS:**

SEE SHEET C1.03

**NOTE:**

TOPOGRAPHIC MAPPING INFORMATION FOR  
EBPA VIA FIELD SURVEY OCTOBER, 2002  
BY CORE DESIGN, CONCEPT ENGINEERS AND  
DAVID EVANS AND ASSOCIATES.

**LEGEND**

COAL MINE  
HAZARD AREA

**APPROVAL CONDITIONS**

BY \_\_\_\_\_ DATE \_\_\_\_\_

APPROVED BY PORT BLAKELY COMMUNITIES FOR  
REVIEW BY THE MDRT

BY \_\_\_\_\_ DATE \_\_\_\_\_  
PLANNING ENGINEERING

MDRT Planner	Date	MDRT Engineer	Date
<input type="checkbox"/> Reviewed & Determined to be not applicable		<input type="checkbox"/> Reviewed & Determined to be not applicable	
MDRT LS Arch.	Date	MDRT Engineer	Date
<input type="checkbox"/> Reviewed & Determined to be not applicable		<input type="checkbox"/> Reviewed & Determined to be not applicable	

MDRT Program Manager \_\_\_\_\_ Date \_\_\_\_\_

Public Works Engr Director \_\_\_\_\_ Date \_\_\_\_\_

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HAVE BEEN APPROVED FOR CONSTRUCTION

**AS-BUILT NOTICE**

CONTACT PROJECT SURVEYOR PRIOR  
TO BACKFILLING TO LOCATE AS-  
CONSTRUCTED FACILITIES TO MEET  
CITY OF ISSAQUAH REQUIREMENTS!

**UNDERGROUND LOCATOR SERVICE**

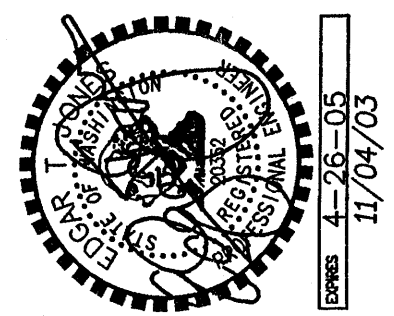
CALL BEFORE YOU DIG!  
1-800-424-5555

SCALE: 1"=40'  
DESIGNED E.T.J.  
DRAWN L.G. WIGHT  
CHECKED E.T.J.  
DATE 11-04-03  
VERIFY SCALE  
BARS ONE INCH  
ON ORIGINAL  
DRAWING

**SOUTH B.P.A. GRADING PLAN  
PARK DRIVE & BPA IMPROVEMENTS  
VOLUMES 1 & 2  
SURFACE IMPROVEMENTS & DRY UTILITIES**

PROJECT NUMBER  
**01111**  
DRAWING  
**C3.01**  
D:\3088, SHT 11 OF 24

NO.	DATE	REVISION	BY	CHK
1	4/8/02	REV. PLANS IN RESPONSE TO MDRT		
2	7/16/03	REV. PLANS IN RESPONSE TO MDRT & PBC WMS ETU		
3	10/23/03	DESIGN CHANGE #4-REV. PSE ROAD RAD. DCA RTU		



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**CORE DESIGN**  
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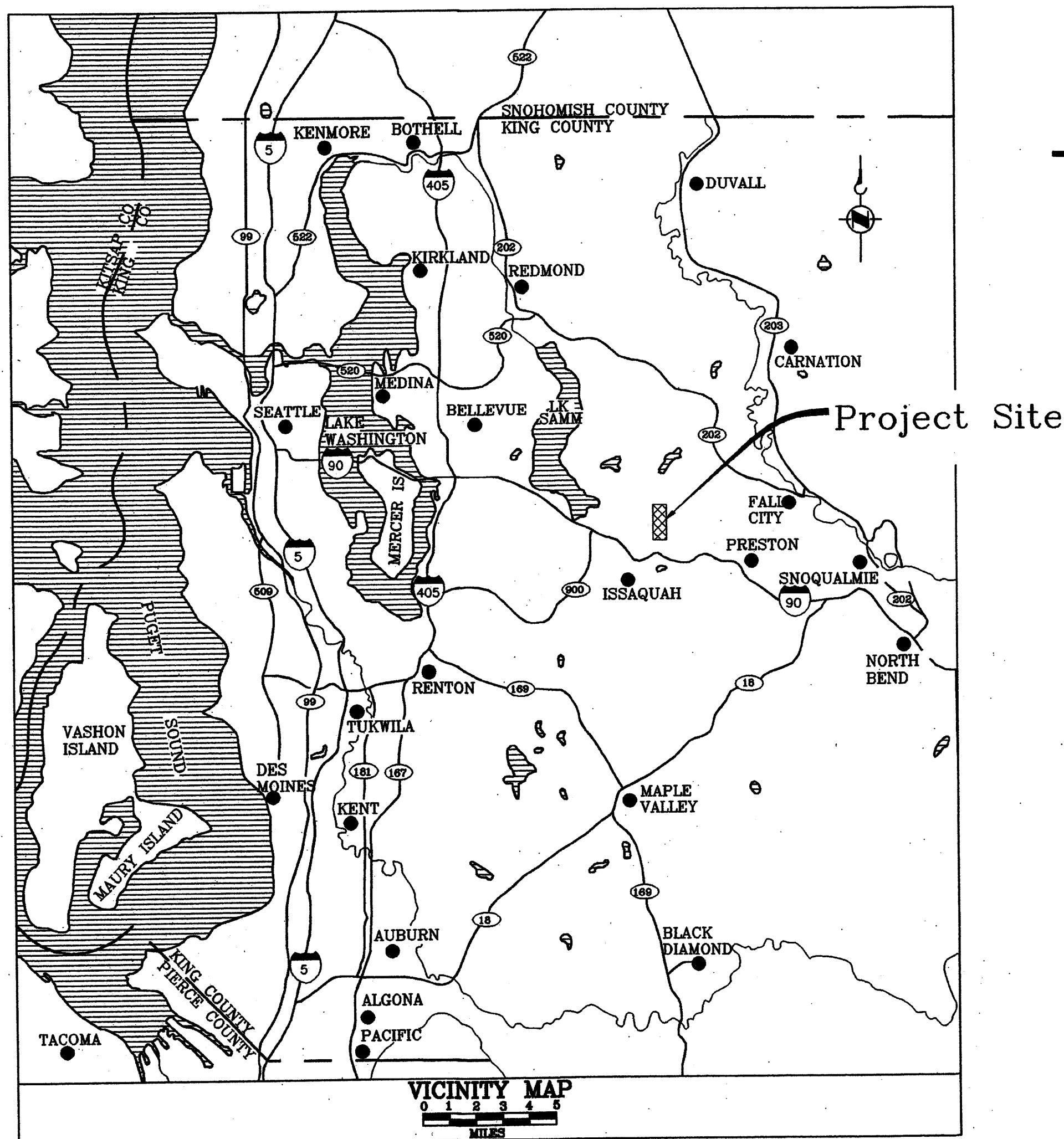


# ISSAQUAH HIGHLANDS

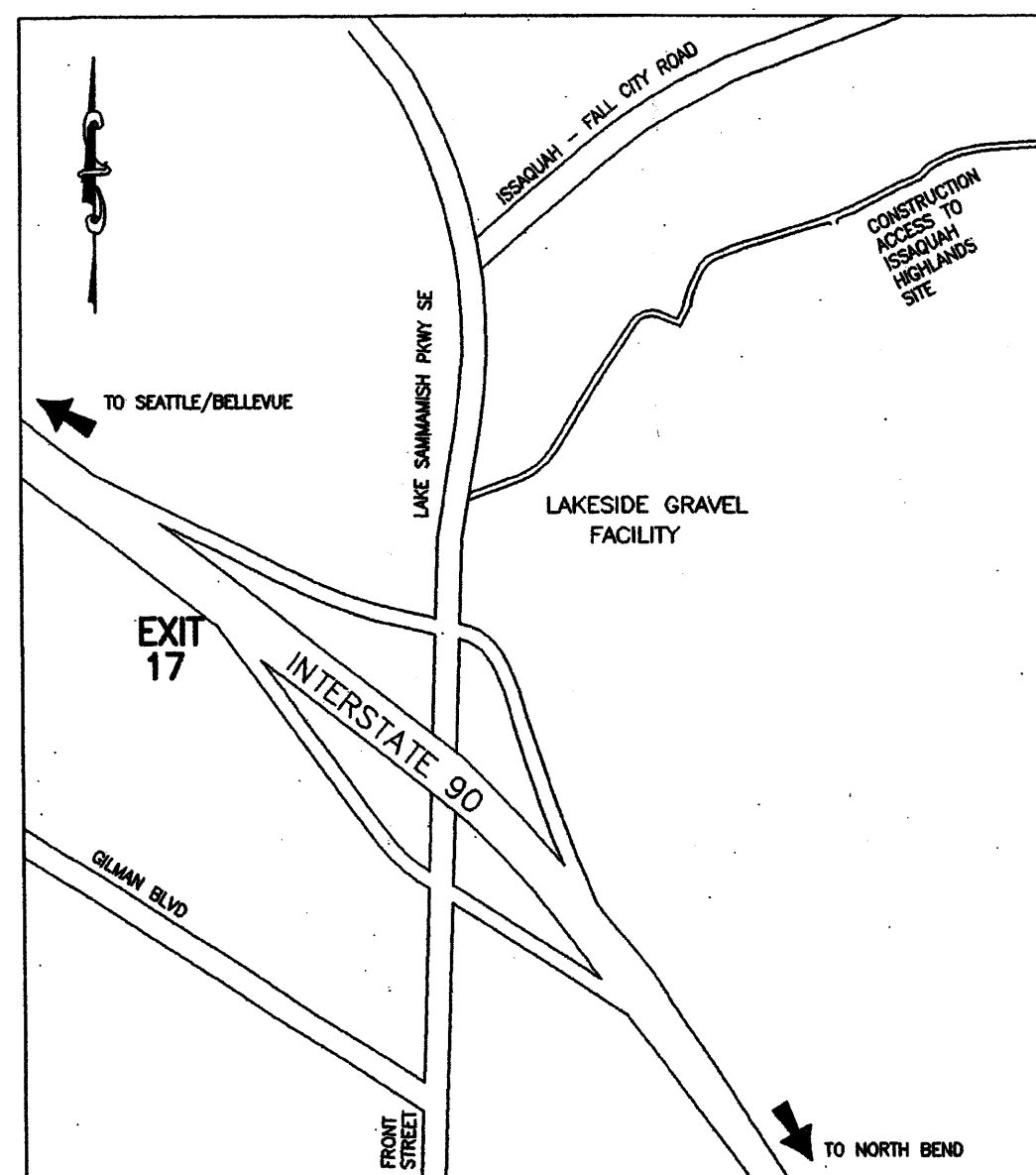
## PSE SUB-STATION SITE PLAN JUNE 2001

### PORT BLAKELY COMMUNITIES

#### GENERAL VICINITY MAP



#### LOCAL VICINITY MAP

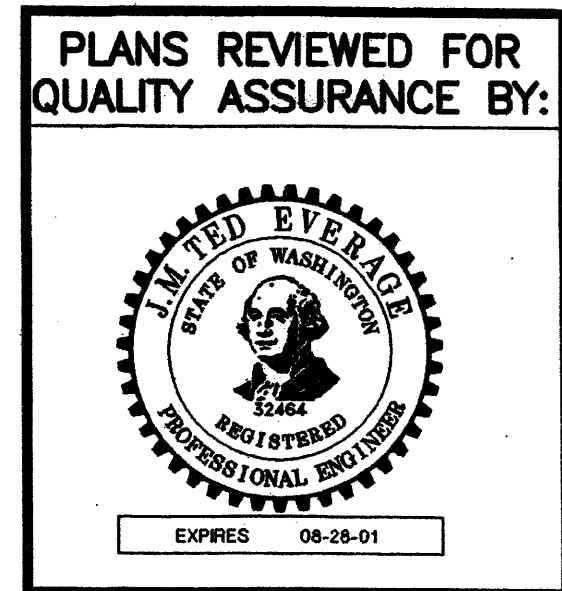


#### INDEX OF SHEETS

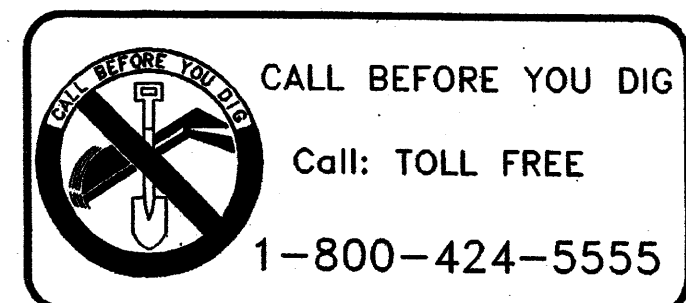
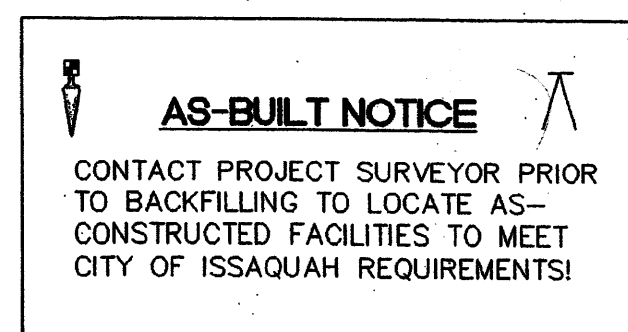
SHEET NO.	DESCRIPTION
1	COVER SHEET
2	CONSTRUCTION ACCESS AND PROJECT LOCATION PLAN
3	SITE PLAN
4	HORIZONTAL CONTROL PLAN (No Hard Copy)
5	DETAILS
6	ACCESS ROAD GRADING PLAN
7	ACCESS ROAD GRADING PROFILE
8	WALL PROFILE AND SPECIFICATIONS
9	WALL CROSS SECTION AND DESIGN
10	WALL CONSTRUCTION DETAILS
11	WALL CONSTRUCTION DETAILS

NOTE:  
THESE PLANS FOR MASS GRADING, WALLS, ACCESS ROAD, AND STORMWATER FACILITIES ONLY. LOCATION OF TRANSFORMERS AND SPILL PREVENTION PLAN TO BE PROVIDED BY PSE UNDER SEPARATE PLANS.

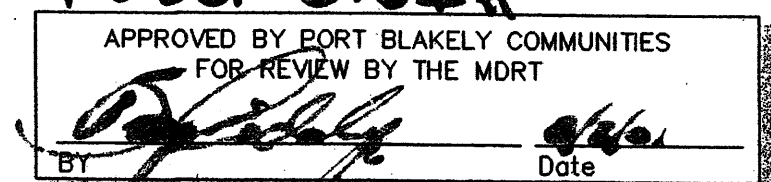
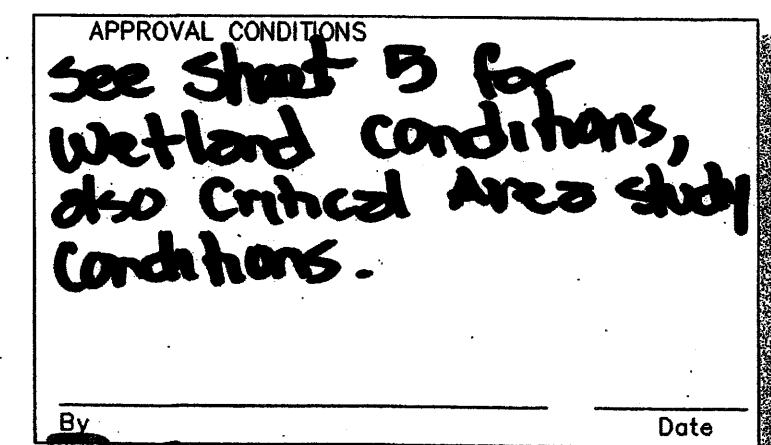
**\* All Construction Except the Miticker wall is Temporary & "At Risk" UNTIL A SITE DEVELOPMENT PERMIT IS APPROVED FOR THIS WORK.**



SUBMITTED	5/4/01
MDRT REVIEW COMMENTS	5/21/01
RESUBMITTED	6/13/01
REVISIONS	APPD.



ONLY SHEETS WITH AUTHORIZING SIGNATURES HAVE BEEN APPROVED

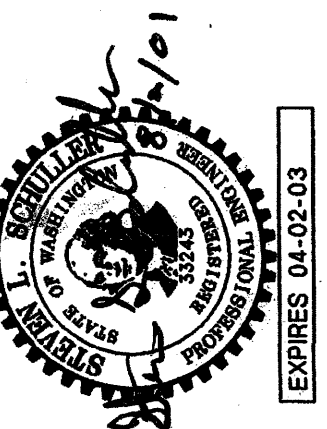


PLANNING	ENGINEERING
Lucy Sloman Date 8/1/01	Mark Keller Date 8/7/01
Keith Niven Date 8/1/01	Don Ervin Date 8/7/01
Reviewed and Determined to be not applicable	Reviewed and Determined to be not applicable
Bob Hoffman Date 8/1/01	Bob Brock Date 8/7/01

"Issaquah Highlands" Logo Provided by Otak Engineers

5/4/01  
Date  
SLSC  
Designed  
OXA  
Drawn  
JTE  
Checked By  
DAVID EVANS AND ASSOCIATES, INC.  
415 - 118TH AVENUE S.E.  
BELLEVUE, WA 98006-3818 (425) 512-6800  
2700 - PACIFIC HWY EAST  
TACOMA, WA 98144 (253) 822-9760

ISSAQUAH HIGHLANDS



PSE Sub-Station  
Construction Plans  
Issaquah, Washington  
Cover Sheet

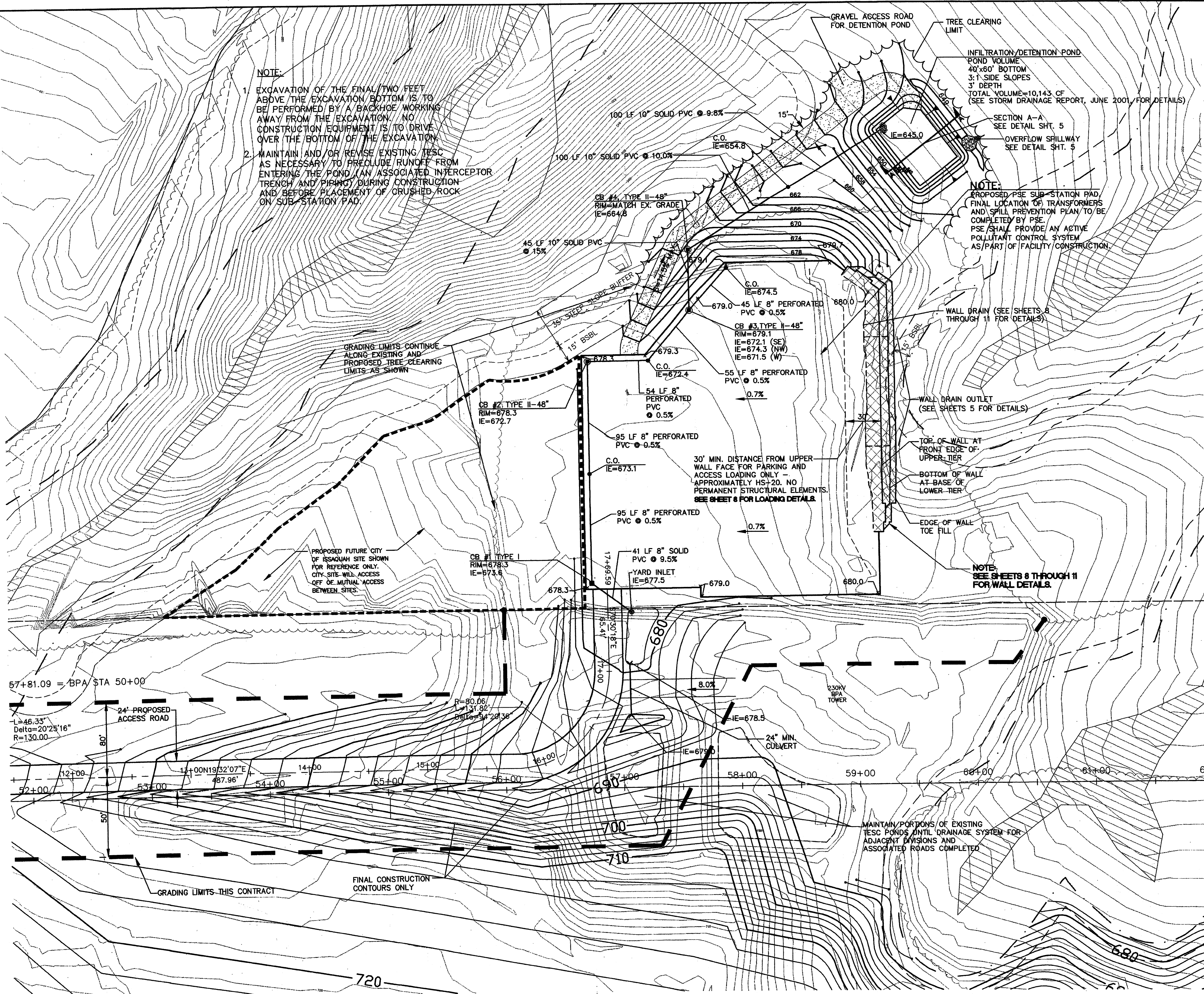
Project No.  
D-13088  
File No.  
1 OF  
Sheet No.







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**NOTE:**

1. EXCAVATION OF THE FINAL TWO FEET ABOVE THE EXCAVATION BOTTOM IS TO BE PERFORMED BY A BACKHOE WORKING AWAY FROM THE EXCAVATION. NO CONSTRUCTION EQUIPMENT IS TO DRIVE OVER THE BOTTOM OF THE EXCAVATION.
2. MAINTAIN AND/OR REVISE EXISTING TESC AS NECESSARY TO PRECLUDE RUNOFF FROM ENTERING THE POND (AN ASSOCIATED INTERCEPTOR TRENCH AND PIPING DURING CONSTRUCTION AND BEFORE PLACEMENT OF CRUSHED ROCK ON SUB-STATION PAD).

INFILTRATION/DETENTION POND  
POND VOLUME  
40'x60' BOTTOM  
3:1 SIDE SLOPES  
3' DEPTH  
TOTAL VOLUME=10,143 CF  
(SEE STORM DRAINAGE REPORT, JUNE 2001, FOR DETAILS)

SECTION A-A  
SEE DETAIL SHT. 5  
OVERFLOW SPILLWAY  
SEE DETAIL SHT. 5

**NOTE:**

PROPOSED PSE SUB-STATION PAD  
FINAL LOCATION OF TRANSFORMERS  
AND SPILL PREVENTION PLAN TO BE  
COMPLETED BY PSE.  
PSE SHALL PROVIDE AN ACTIVE  
POLLUTANT CONTROL SYSTEM  
AS PART OF FACILITY CONSTRUCTION.

**LEGEND**

FINAL GRADE  
(MASS GRADING TO BE  
0.7 TO 1.5 FEET BELOW  
FINAL GRADES AS SHOWN.  
SEE DETAIL SHT. 5.)

WETLAND BUFFER

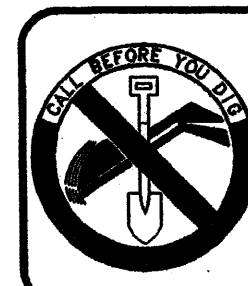
WETLAND

EXISTING TREE LINE

SUBMITTED	5/4/01
MDRT REVIEW COMMENTS	5/21/01
RESUBMITTED	6/13/01
REVISIONS	APPD.

**AS-BUILT NOTICE**

CONTACT PROJECT SURVEYOR PRIOR  
TO BACKFILLING TO LOCATE AS-  
CONSTRUCTED FACILITIES TO MEET  
CITY OF ISSAQUAH REQUIREMENTS!



CALL BEFORE YOU DIG  
Call: TOLL FREE  
1-800-424-5555

ONLY SHEETS WITH AUTHORIZING  
SIGNATURES HAVE BEEN APPROVED

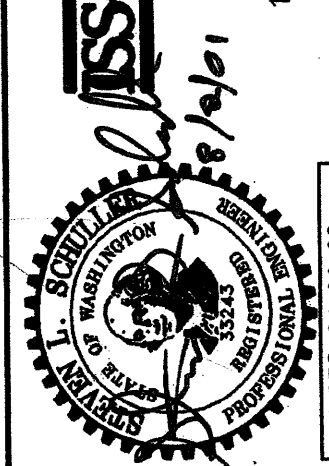
APPROVAL CONDITIONS  
*GRADING & ACCESS ROADS EAST  
OF BPA IS TEMPORARY & AT  
PSE'S RISK UNTIL M.S.D.P. IS APPROVED  
FOR THIS WORK.*  
By: *[Signature]* Date: 8/7/01

PLANNING	ENGINEERING
Lucy Sloman	Mark Keller
Kevin Niven	Don Ervin
Bill Hoffman	Bob Brock
Date	Date

5/4/01  
Date  
SLSC  
Designed  
OXA  
Drawn  
JTE  
Checked By

DAVID EVANS  
AND ASSOCIATES  
1100 1<sup>ST</sup> AVENUE, S.E.  
BELLEVUE, WA 98003-4000  
8700 - PACIFIC HWY. EAST  
TACOMA, WA 98404 (253) 928-9780

ISSAQUAH HIGHLANDS  
Port Bickley Communities, Inc.  
1775 12th Avenue NW, Suite 101  
Issaquah, Washington 98027



PSE Sub-Station  
CONSTRUCTION PLANS  
Issaquah, Washington  
Site Grading Plan

PTBX0023  
Project No.  
**D-13088**  
File No.  
**3 OF**  
Sheet No.



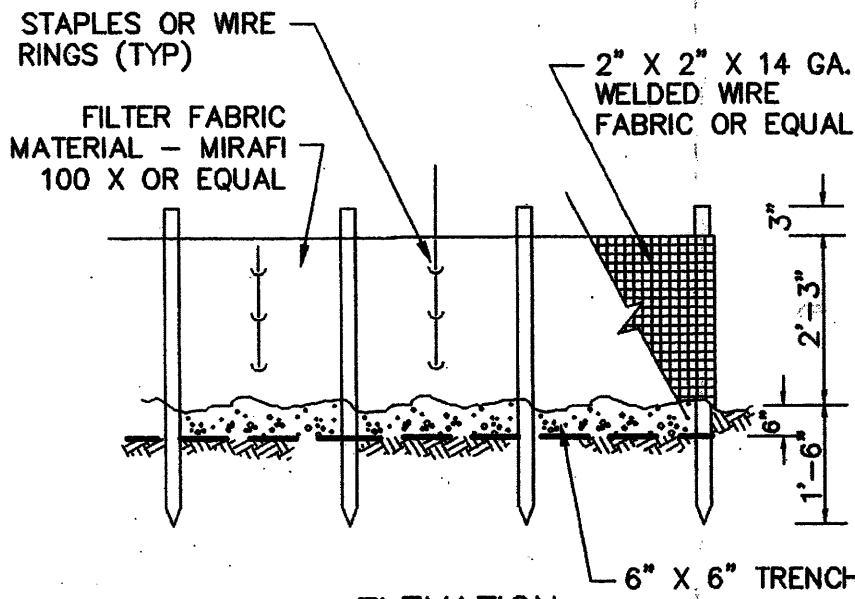
GENERAL PLAN NOTES

- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CITY OF ISSAQUAH REQUIREMENTS AND THE AGREEMENT BETWEEN THE CITY OF ISSAQUAH AND THE GRAND RIDGE PARTNERSHIP. THESE DOCUMENTS ARE SUPPLEMENTED BY THE STANDARD SPECIFICATIONS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION (WSDOT/APWA), THE KING COUNTY ROAD STANDARDS (KCRS) AND THE KING COUNTY SURFACE WATER DESIGN MANUAL (KCSWDM). IT SHALL BE THE SOLE RESPONSIBILITY OF THE DEVELOPER AND THE DEVELOPER'S ENGINEER TO CORRECT ANY ERROR, OMISSION, OR VARIATION FROM THE ABOVE REQUIREMENTS FOUND IN THESE PLANS.
- THE DESIGN ELEMENTS WITHIN THESE PLANS HAVE BEEN REVIEWED ACCORDING TO THE REQUIREMENTS OF APPROVAL. SOME ELEMENTS MAY HAVE BEEN OVERLOOKED OR MISSED BY THE REVIEWER. ANY VARIANCE FROM ADOPTED STANDARDS IS NOT ALLOWED UNLESS SPECIFICALLY APPROVED, PRIOR TO CONSTRUCTION.
- BEFORE ANY CONSTRUCTION OR DEVELOPMENT ACTIVITY CAN BEGIN, A PRE-CONSTRUCTION MEETING MUST BE HELD BETWEEN THE MDRT INSPECTOR, THE APPLICANT'S CONSTRUCTION REPRESENTATIVE, AND THE CONTRACTOR.
- A COPY OF THESE APPROVED PLANS MUST BE ON THE JOB SITE WHENEVER CONSTRUCTION IS IN PROGRESS.
- FRANCHISED UTILITIES OR OTHER INSTALLATIONS THAT ARE NOT SHOWN ON THESE APPROVED PLANS SHALL NOT BE CONSTRUCTED UNLESS PLANS THAT MEET ALL THE REQUIREMENTS ARE SUBMITTED AND APPROVED BY THE MDRT PRIOR TO CONSTRUCTION.
- 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 THE PROPERTY IN CONNECTION WITH THE PERFORMANCE OF WORK COVERED BY THE CONTRACTOR. ANY WORK WITHIN THE TRAVELED RIGHT-OF-WAY THAT MAY INTERRUPT NORMAL TRAFFIC FLOW SHALL REQUIRE AT LEAST ONE FLAGGER FOR EACH LANE OF TRAFFIC AFFECTED. ALL SECTIONS OF THE WSDOT STANDARD SPECIFICATIONS 1-07.23 - TRAFFIC CONTROL, SHALL APPLY.
- ALL LOCATIONS OF EXISTING UTILITIES SHOWN HEREON HAVE BEEN ESTABLISHED BY FIELD SURVEY OR OBTAINED FROM AVAILABLE RECORDS AND SHOULD THEREFORE BE CONSIDERED APPROXIMATE ONLY AND NOT NECESSARILY COMPLETE. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO INDEPENDENTLY VERIFY THE ACCURACY OF ALL UTILITY LOCATIONS SHOWN, AND TO FURTHER DISCOVER AND AVOID ANY OTHER UTILITIES NOT SHOWN HEREON WHICH MAY BE AFFECTED BY THE IMPLEMENTATION OF THIS PLAN. THE CONTRACTOR SHALL CONTACT THE UTILITIES UNDERGROUND LOCATION SERVICE (1-800-424-5555) PRIOR TO CONSTRUCTION. THE OWNER OR HIS REPRESENTATIVE SHALL BE IMMEDIATELY CONTACTED IF A UTILITY CONFLICT EXISTS. REPAIR OF DAMAGE OR DISTURBANCE TO ANY UTILITIES WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- ALL CONSTRUCTION PARKING SHALL BE ON SITE. ANY "ON-STREET" PARKING WILL BE SUBJECT TO TOWING.
- LOCATIONS OF DITCHES, PIPES, PONDS, AND SILT FENCES ARE SHOWN IN APPROXIMATE LOCATIONS. ACTUAL LOCATIONS, LENGTH, AND SPACING WILL NEED TO BE FIELD FIT TO WORK WITH ACTUAL CONDITIONS AS THEY EXIST.

EROSION/SEDIMENTATION CONTROL NOTES

- APPROVAL OF THIS EROSION/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 APPLICANT/CONTRACTOR UNTIL ALL CONSTRUCTION IS APPROVED.
- THE BOUNDARIES OF THE CLEARING LIMITS SHOWN ON THIS PLAN SHALL BE CLEARLY FLAGGED IN THE FIELD PRIOR TO CONSTRUCTION. DURING THE CONSTRUCTION PERIOD, NO DISTURBANCE BEYOND THE FLAGGED CLEARING LIMITS SHALL BE PERMITTED. THE FLAGGING SHALL BE MAINTAINED BY THE APPLICANT/CONTRACTOR FOR THE DURATION OF CONSTRUCTION.
- THE ESC FACILITIES SHOWN ON THIS PLAN MUST BE CONSTRUCTED IN CONJUNCTION WITH ALL CLEARING AND GRADING ACTIVITIES, AND IN SUCH A MANNER AS TO INSURE THAT SEDIMENT LADEN WATER DOES NOT ENTER THE DRAINAGE SYSTEM OR VIOLATE APPLICABLE WATER STANDARDS.
- THE ESC FACILITIES SHOWN ON THIS PLAN ARE THE MINIMUM REQUIREMENTS FOR ANTICIPATED SITE CONDITIONS. DURING THE CONSTRUCTION PERIOD, THESE ESC FACILITIES SHALL BE UPGRADED (E.G. ADDITIONAL SUMPS, RELOCATION OF DITCHES AND SILT FENCES, ETC.) AS NEEDED FOR UNEXPECTED STORM EVENTS.
- THE ESC FACILITIES SHALL BE INSPECTED DAILY BY THE APPLICANT/CONTRACTOR AND MAINTAINED AS NECESSARY TO ENSURE THEIR CONTINUED FUNCTIONING.
- THE ESC FACILITIES ON INACTIVE SITES SHALL BE INSPECTED AND MAINTAINED A MINIMUM OF ONCE A WEEK OR WITHIN THE 24 HOURS FOLLOWING A STORM EVENT.
- AT NO TIME SHALL MORE THAN ONE FOOT OF SEDIMENT BE ALLOWED TO ACCUMULATE WITHIN A CATCH BASIN. ALL CATCH BASINS AND CONVEYANCE LINES SHALL BE CLEANED PRIOR TO PAVING. THE CLEANING OPERATION SHALL NOT FLUSH SEDIMENT LADEN WATER INTO THE DOWNSTREAM SYSTEM.
- STABILIZED CONSTRUCTION ENTRANCES AND WASH PADS SHALL BE INSTALLED AT THE BEGINNING OF CONSTRUCTION AND MAINTAINED FOR THE DURATION OF THE PROJECT. ADDITIONAL MEASURE MAY BE REQUIRED TO INSURE THAT ALL PAVED AREAS ARE KEPT CLEAN FOR THE DURATION OF THE PROJECT.
- ANY PERMANENT RETENTION/DETENTION FACILITY USED AS A TEMPORARY SETTLING BASIN SHALL BE MODIFIED WITH THE NECESSARY EROSION CONTROL MEASURES AND SHALL PROVIDE ADEQUATE STORAGE CAPACITY. IF THE PERMANENT FACILITY IS TO FUNCTION ULTIMATELY AS AN INFILTRATION OR DISPERSION SYSTEM, THE FACILITY SHALL NOT BE USED AS A TEMPORARY SETTLING BASIN. NO UNDERGROUND DETENTION TANKS OR VAULTS SHALL BE USED AS A TEMPORARY SETTLING BASIN.
- WHERE SEEDING FOR TEMPORARY EROSION CONTROL IS REQUIRED, FAST GERMINATING GRASSES SHALL BE APPLIED AT AN APPROPRIATE RATE (E.G. ANNUAL OR PERENNIAL RYE APPLIED AT APPROXIMATELY 80 POUNDS PER ACRE).
- WHERE STRAW MULCH FOR TEMPORARY EROSION CONTROL IS REQUIRED, IT SHALL BE APPLIED AT A MINIMUM THICKNESS OF TWO INCHES.

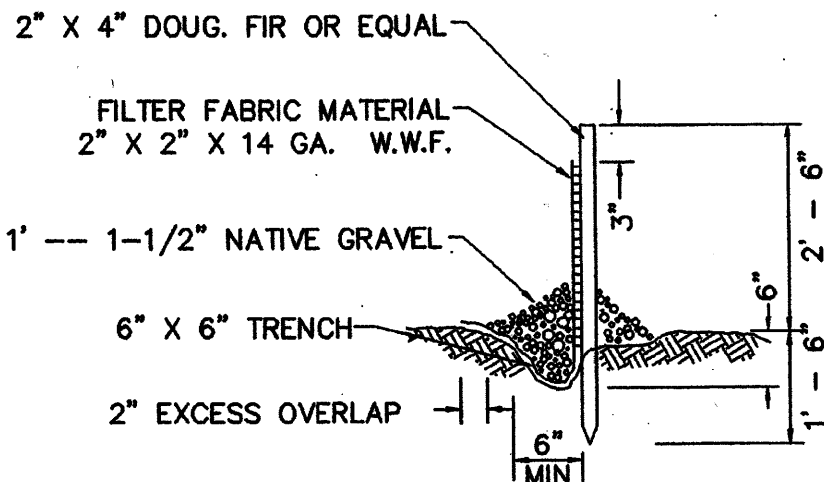
- ALL SLOPES STEEPER THAN 3:1 MUST BE STABILIZED WITH JUTE MAT WITHIN 24 HOURS OF EXPOSURE.
- EXPOSED SOIL MUST BE COVERED WITHIN 7 DAYS OF EXPOSURE DURING THE DRY SEASON (APRIL 1 THROUGH SEPTEMBER 30), AND WITHIN 48 HOURS OF EXPOSURE DURING THE WET SEASON (OCTOBER 1 THROUGH MARCH 31). ORGANIC MULCH SHALL BE USED FOR COVER UNLESS THE SLOPE IS STEEPER THAN 3:1, AT WHICH POINT A BIODEGRADABLE NET (JUTE MAT) SHALL BE USED TO STABILIZE THE MULCH.
- FROM OCTOBER 1ST THROUGH MARCH 31ST, GRADING IS LIMITED TO AN AREA NO LARGER THAN ONE ACRE.
- ALL ROADWAYS MUST BE KEPT CLEAN AND FREE OF SEDIMENT.
- CONTRACTOR SHALL CHECK, VERIFY (AND MAINTAIN AS NECESSARY) THAT EROSION CONTROL MEASURES ARE IN GOOD CONDITION, INSTALL PROPERLY AND FUNCTIONING AS INTENDED.
- ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED AS CONDITIONS WARRANT OR AS DIRECTED BY THE MDRT REPRESENTATIVE.



- NOTES:
- PLACE 1' OF 3/4" -- 1-1/2" WASHED ROCK OR PEA GRAVEL ON BOTH SIDES OF FENCE TO CREATE A BEVEL SHAPE.
  - FABRIC SHALL COVER BOTTOM OF 6" X 6" TRENCH AND EXTEND BEYOND THE LIMITS OF THE GRAVEL IN ORDER TO MAINTAIN AN EXCESS OVERLAP OF 2" MINIMUM AS SHOWN IN THE TYPICAL CROSS-SECTION.

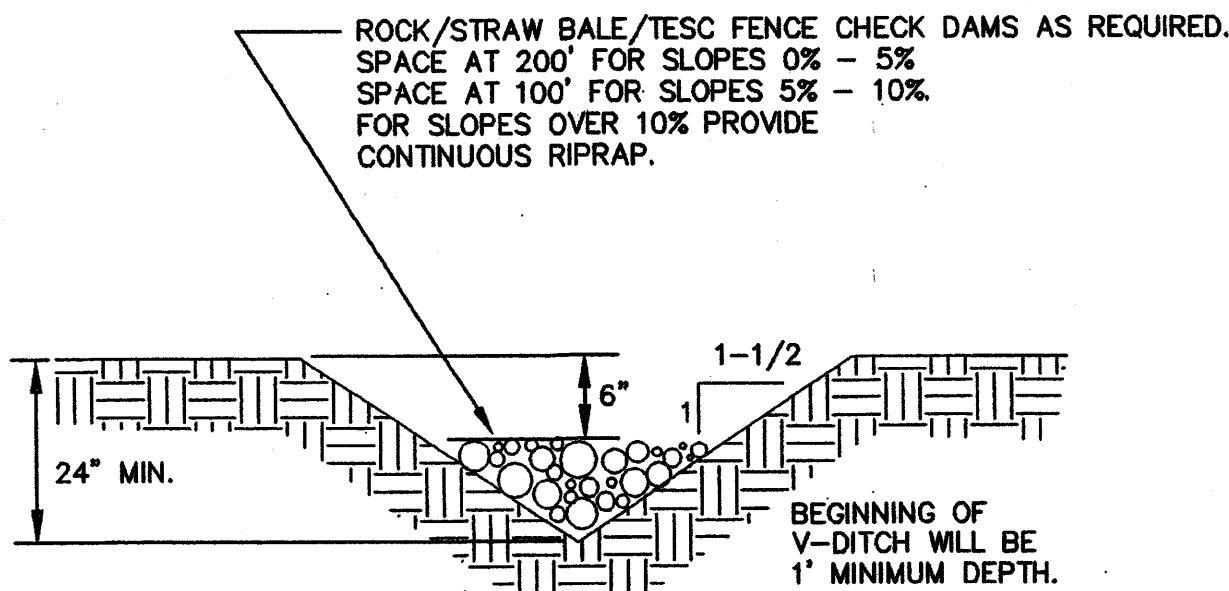
SILTATION FENCE DETAIL

N.T.S.



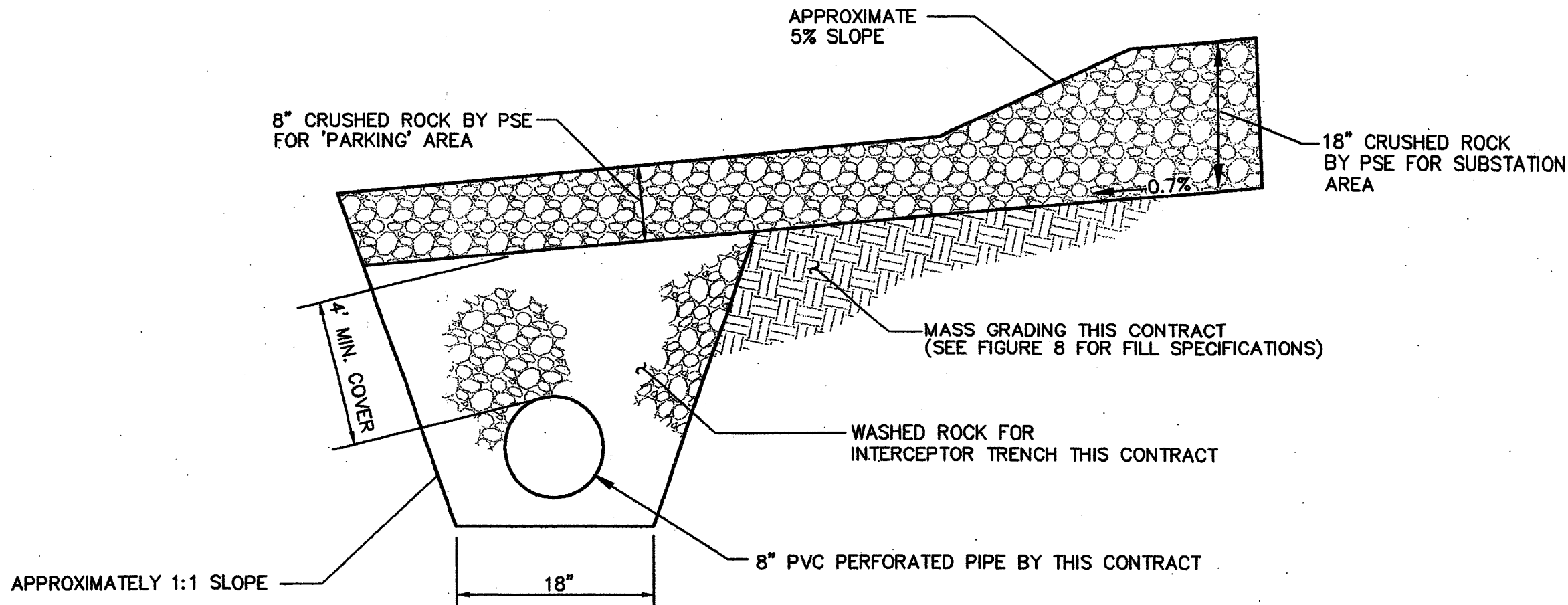
SILTATION FENCE CROSS SECTION

N.T.S.



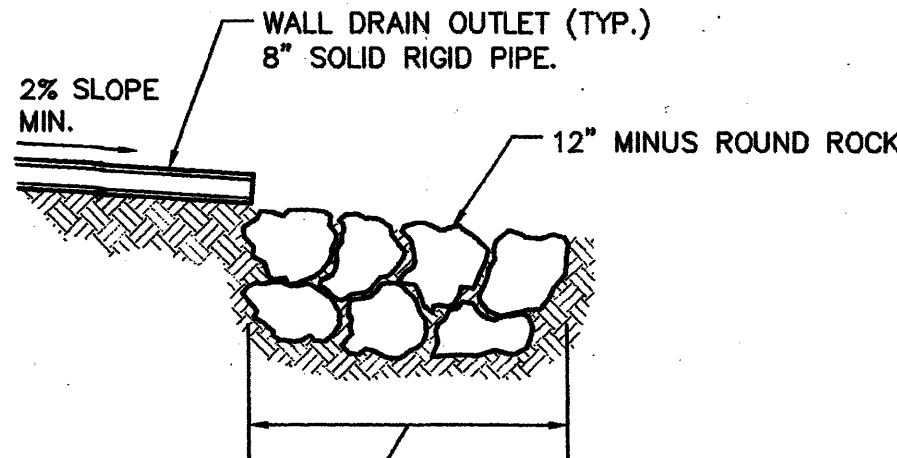
TEMPORARY INTERCEPTOR DITCH W/CHECK DAM 'A' SECTION DETAIL

NOT TO SCALE



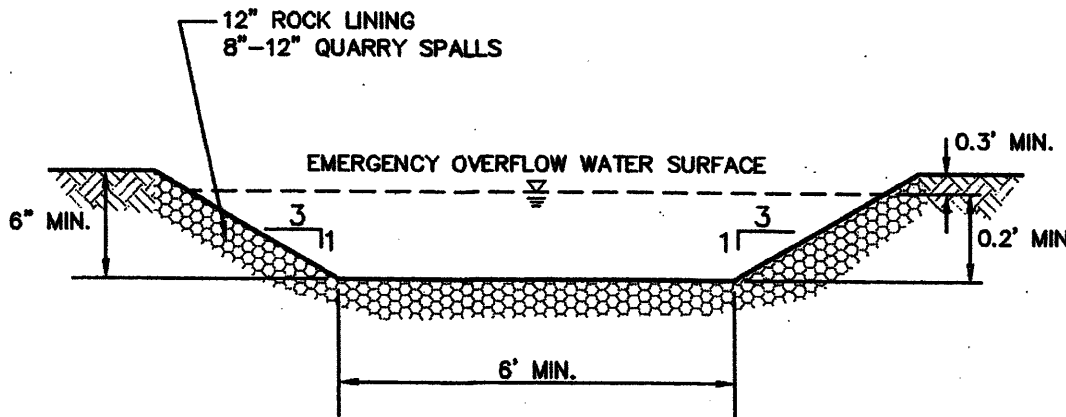
MASS GRADING BREAKLINE AND STORM INTERCEPTOR TRENCH DETAIL

N.T.S.



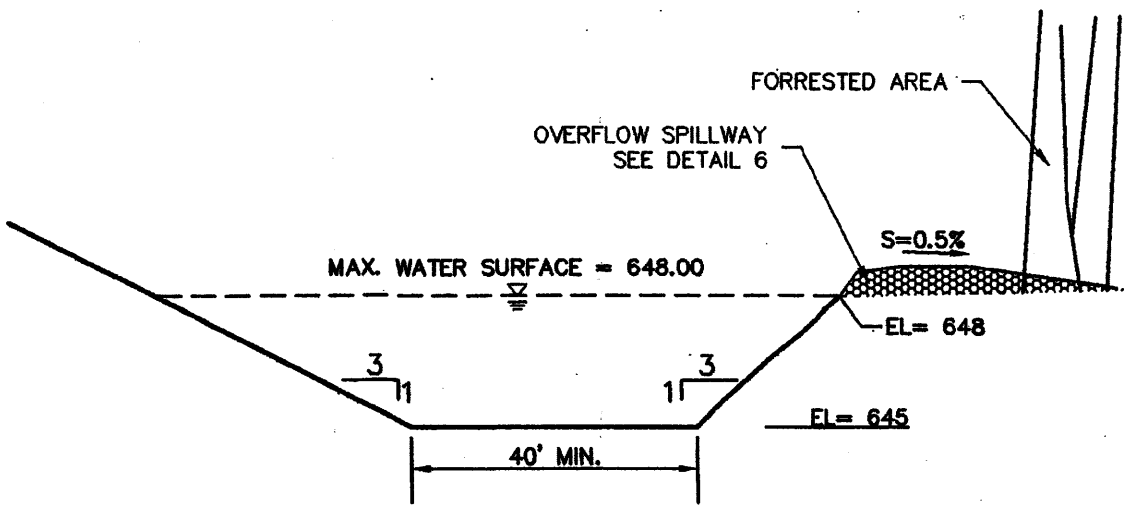
WALL DRAIN OUTFALL DETAIL

N.T.S.



WEIR SECTION FOR EMERGENCY OVERFLOW SPILLWAY

N.T.S.



INFILTRATION POND SECTION A-A

N.T.S.

NOTE: FOR EXCAVATION AT THE POND, SEE NOTE ON SHEET 3.

SUBMITTED	5/4/01
MDRT REVIEW COMMENTS	5/21/01
RESUBMITTED	6/13/01
REVISIONS	APPD.



AS-BUILT NOTICE  
CONTACT PROJECT SURVEYOR PRIOR TO BACKFILLING TO LOCATE AS-CONSTRUCTED FACILITIES TO MEET CITY OF ISSAQUAH REQUIREMENTS!

NOTE: MAINTAIN AND/OR REVISE EXISTING T.E.S.C. AS NECESSARY IN ACCORDANCE TO NOTES CONTAINED HEREON.

PROVIDE SILT SOCK IN CB'S UNTIL CRUSHED ROCK SURFACING IS INSTALLED AND FINES FROM GRAVEL SURFACE HAVE DISSIPATED.

ONLY SHEETS WITH AUTHORIZING SIGNATURES HAVE BEEN APPROVED

APPROVAL CONDITIONS:  
1) NO DISTURBANCE ALLOWED IN WETLAND BUFFER  
2) Prior to construction, the PSE & WETLAND BUFFER SHALL BE DELINEATED  
3) A WETLAND BUFFER SHALL BE ON SITE DURING CONSTRUCTION

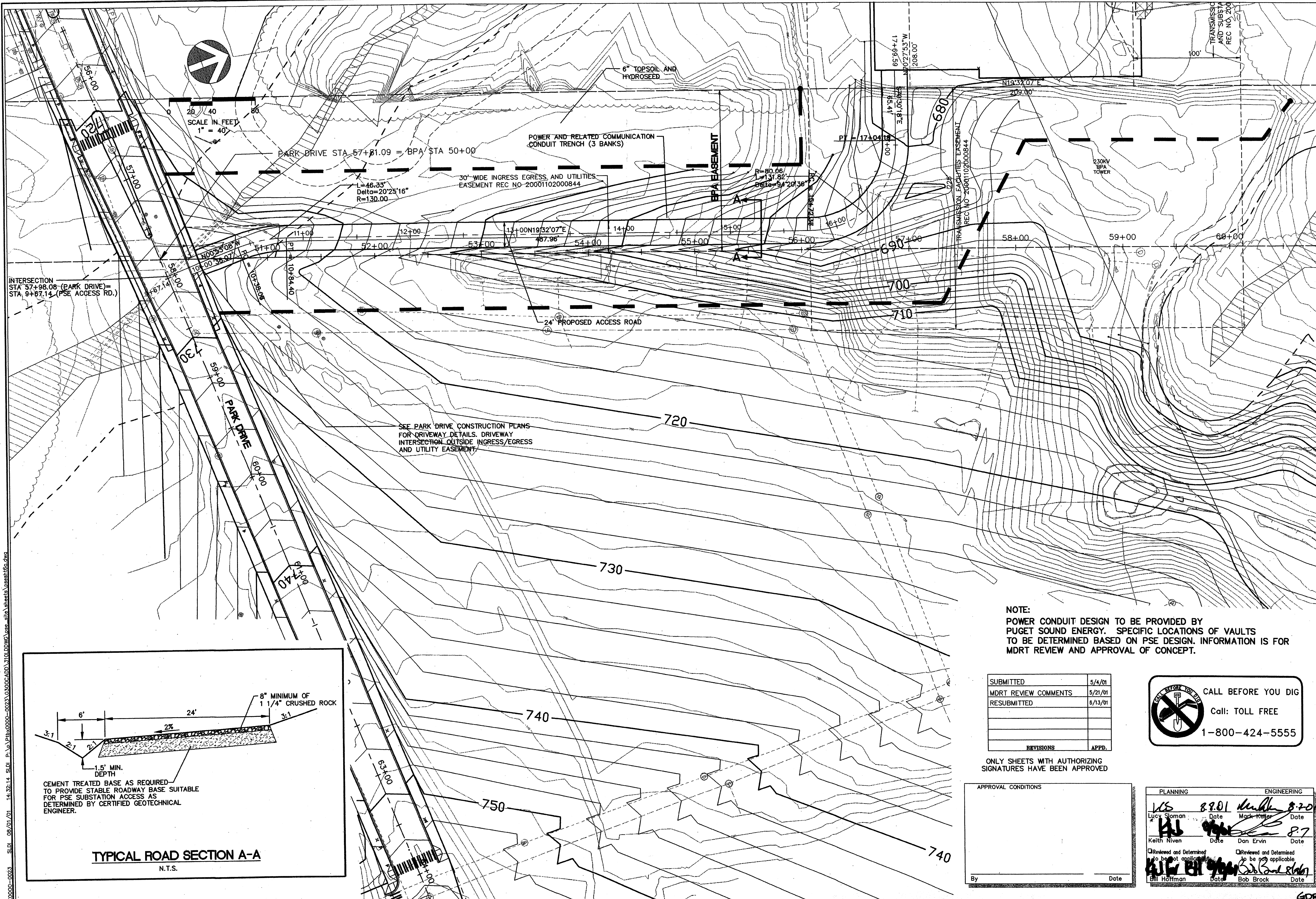
By: [Signature] Date: [Blank]

PLANNING: Lucy Sloman, Keith Niven  
ENGINEERING: Mark Keller, Dan Ervin, Ben Hoffman, Bob Brock  
Reviewed and Determined to be not applicable: [Signature]  
Reviewed and Determined to be not applicable: [Signature]

5/4/01  
Date: SLSC  
Designed: OXA  
Drawn: JTE  
Checked By: [Signature]  
DAVID EVANS AND ASSOCIATES, INC.  
415 - 118TH AVENUE S.E.  
BELLEVUE WA 98006-5616 (206) 835-0600  
9700 - PACIFIC HWY EAST  
TACOMA, WA 98404 (206) 425-9700  
ISSAQUAH HIGHLANDS  
Port Blakey Communities, Inc.  
1775 12th Avenue NW, Suite 101  
Issaquah, Washington 98027  
EXP. 04-02-03  
PSE Sub-Station  
CONSTRUCTION PLANS  
Issaquah, Washington  
Details  
Project No. D-13088  
File No. 5 OF  
Sheet No.



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NOTE:  
POWER CONDUIT DESIGN TO BE PROVIDED BY  
PUGET SOUND ENERGY. SPECIFIC LOCATIONS OF VAULTS  
TO BE DETERMINED BASED ON PSE DESIGN. INFORMATION IS FOR  
MDRT REVIEW AND APPROVAL OF CONCEPT.

SUBMITTED	5/4/01
MDRT REVIEW COMMENTS	5/21/01
RESUBMITTED	6/13/01
REVISIONS	APPD.

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Call: TOLL FREE  
1-800-424-5555

APPROVAL CONDITIONS

By \_\_\_\_\_ Date \_\_\_\_\_

PLANNING	ENGINEERING
Lucy Soman 8.701 Date Mark Keller 8.701 Date	Keith Niven 8.7 Date Dan Ervin 8.7 Date
Bill Hoffman 8.701 Date Bob Brock 8.701 Date	

5/4/01  
Date  
SLSC  
Designed  
OXA  
Drawn  
JTE  
Checked By  
  
DAVID EVANS  
AND ASSOCIATES, INC.  
1000 1<sup>ST</sup> AVENUE, S.W.  
TACOMA, WA 98404  
(253) 833-4000  
FAX (253) 833-4000

Port Blakely Communities, Inc.  
1775 12th Avenue NW, Suite 101  
Issaquah, Washington 98027

EXP. 04-02-03

PSE Sub-Station  
CONSTRUCTION PLANS  
Issaquah, Washington

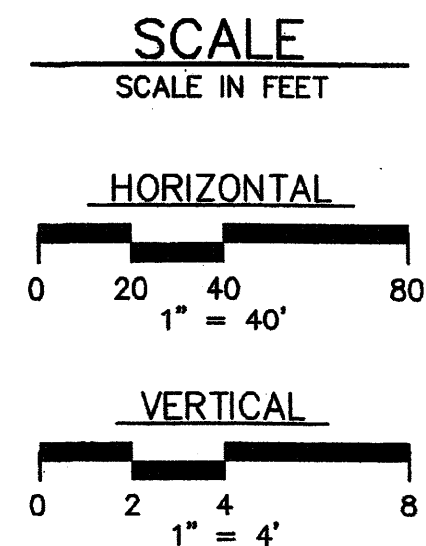
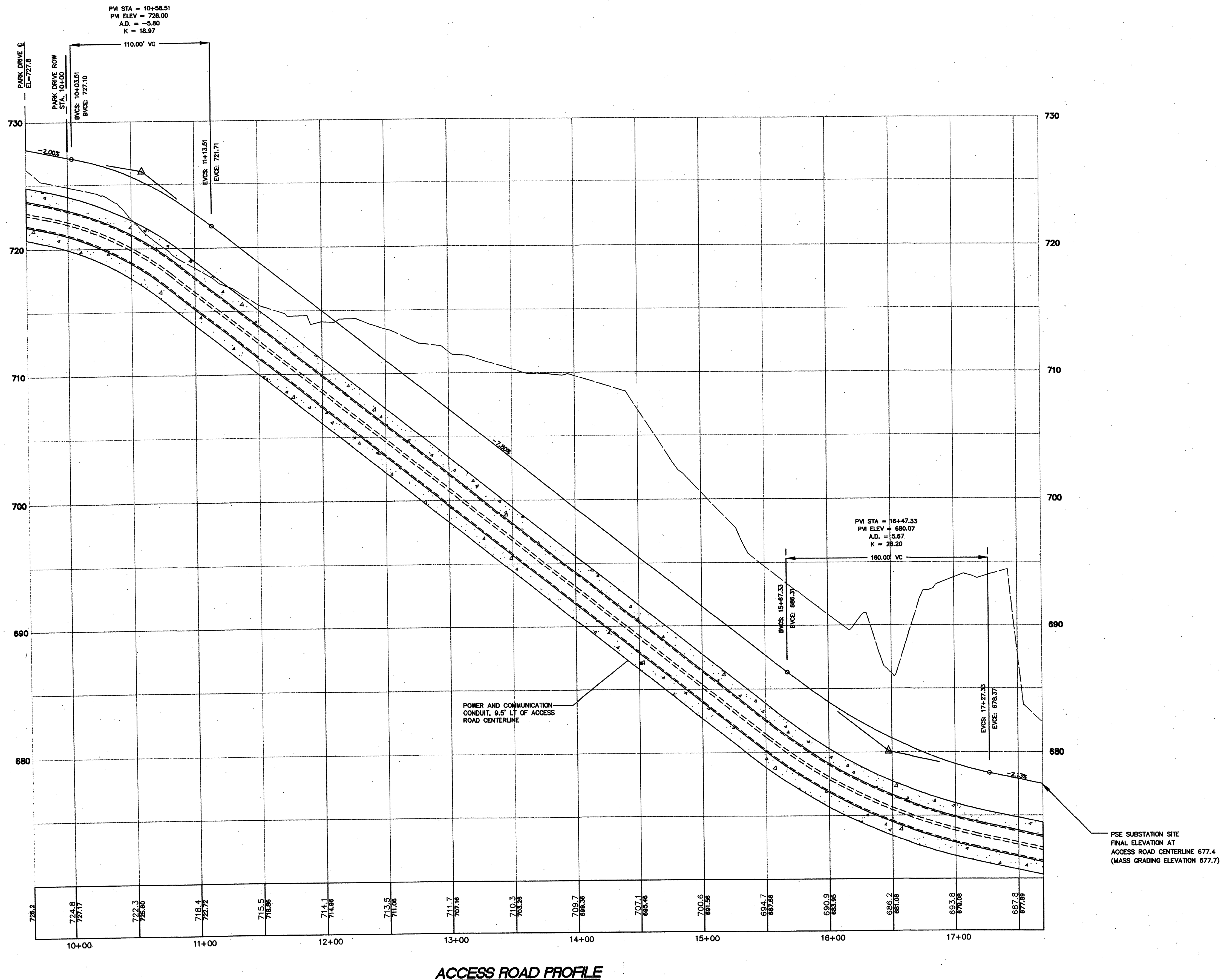
Access Road Grading Plan

PTBX0023  
Project No.  
D-13088  
File No.  
6 OF  
Sheet No.

GDR



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SUBMITTED	5/04/01
MDRT REVIEW COMMENTS	5/21/01
RESUBMITTED	6/13/01
REVISIONS	APPD.

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APPROVAL CONDITIONS

By \_\_\_\_\_ Date \_\_\_\_\_

PLANNING		ENGINEERING	
Lucy Sloman	Date	Mark Keller	Date
Kern Niven	Date	Dan Ervin	Date
Reviewed and Determined to be not applicable		Reviewed and Determined to be not applicable	
Bill Hoffman	Date	Bob Brock	Date

5/4/01

Date

SLSC

Designed

OXA

Drawn

JTE

Checked By

DAVID EVANS  
AND ASSOCIATES, INC.  
415 - 118TH AVENUE S.E.  
BELLEVUE, WA 98006-3817  
P.O. BOX 3171  
TACOMA, WA 98404 (206) 922-2760

**ISSAQUAH HIGHLANDS**

Port Blakely Communities, Inc.  
1775 12th Avenue NW, Suite 101  
Issaquah, Washington 98027

EXP. 04-02-03

**PSE Sub-Station**

CONSTRUCTION PLANS

Issaquah, Washington

**Access Road Profile**

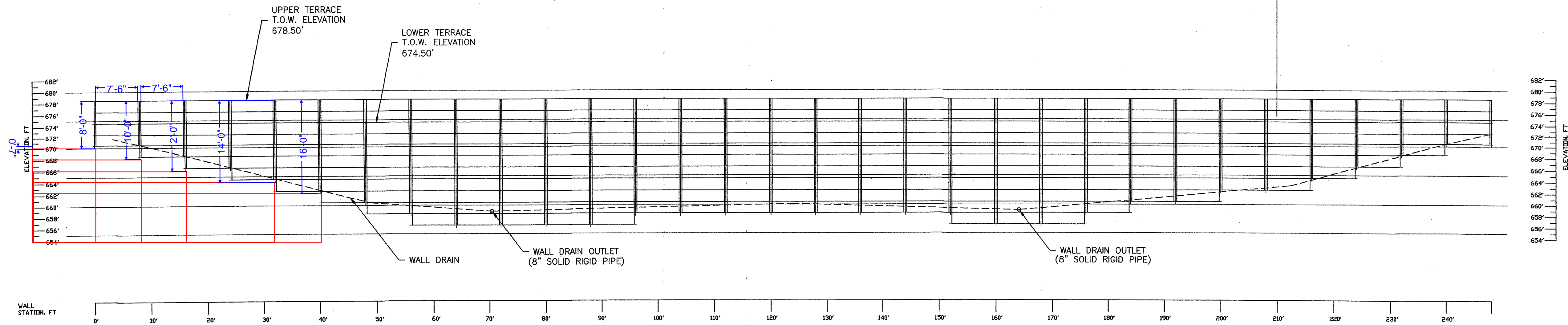
Project No.  
**D-13088**

File No.  
**7 OF**

Sheet No.



# Welded Wire Retaining Wall Profile and Specifications



HILFIKER WELDED WIRE WALL – UNFOLDED FRONT FACE ELEVATION  
Scale: 1"=10'

ESTIMATED WALL AREA=4,400 SF (CONTRACTOR TO VERIFY)

## SPECIFICATIONS FOR HILFIKER WELDED WIRE SOIL RETAINING WALL

### General:

1. The contractor shall have an approved set of plans and specifications on site at all times during the construction of the wall. The wall layout is the responsibility of the contractor.
2. The contractor shall make arrangements to purchase all welded wire wall materials, including wire mesh reinforcement mats, backing materials, and all necessary incidentals from Hilfiker Retaining Walls, 3900 Broadway, P.O. Box 2012, Eureka, CA 95502, (707)443-5093.
3. A professional engineer or representative shall observe and monitor the construction of the wall.
4. All wall materials shall be approved by the geotechnical engineer prior to installation.
5. The contractor may use longer reinforcing wire than the design sections for ease of construction. The reinforcing wire may not be shorter unless approved by the wall designer.

### Subgrade Preparation:

1. The subgrade shall be prepared by removing surficial unsuitable soil, exposing dense, inorganic, native soils as approved by the geotechnical engineer.
2. Rock spalls shall be placed beneath the wall in accordance with the NGA geotechnical report dated December 8, 2000 and the Figure 2.
3. The rock spill layer shall be covered with Mirafi 140N filter fabric or equivalent.
4. A generally level bench with a minimum width equal to the design length of the welded wire mat is required for placement of the reinforced fill.
5. The excavation shall be cleaned of all excess material and protected, as necessary, from construction traffic to maintain the integrity of the subgrade.

### Drainage:

1. A specific drainage system is shown on the plans. Alternative drains can be used based on conditions found in the field and the material used within the reinforced zone. Changes to the drainage system shall be approved by the geotechnical engineer prior to construction.
2. Surface water shall not be allowed to pond in or near the reinforced fill zone or prepared subgrade during or after construction.

### Fill Placement:

1. Structural fill, consisting of granular import soils or on-site material with no portion greater than 6 inches in size, shall be placed on the welded wire mat and behind the reinforced fill zone. The geotechnical engineer shall approve the material placed in the reinforced and retained zones before placement.
2. Reinforced and retained fills shall have parameters equal to or better than those used in the design with less than 25% passing the number 200 sieve.
3. Soil density tests shall be performed as designated by the geotechnical engineer.
4. Reinforced and retained fills shall be compacted to at least 92% of the Maximum Dry Density (MDD) as determined by ASTM D-1557.
5. The soil shall be placed in relatively uniform horizontal lifts not exceeding 8 inches in thickness. The lift thickness shall not exceed the manufacturer's recommended depth for the compactive device used on the project.
6. The crushed rock blanket behind the face of the wall shall be placed in 4-inch lifts and compacted to a non-yielding condition using hand-operated compactors.

### Welded Wire Mat Placement:

1. Wire reinforcing and facing material shall be placed in accordance with the manufacturer's recommendations.
2. Vertical and horizontal tolerances shall be according to manufacturer's recommendations.
3. The welded wire mats and facing materials shall be placed at the proper elevation and location.
4. Welded wire mats shall consist of the specified longitudinal and transverse wire sizes spaced 6 inches and 12 inches apart, respectively. The contractor may use heavier mats for ease of construction.
5. Steel backing mats shall be W5 vertical x W2.5 horizontal (Min.) welded wire fabric.

### Inspection:

The construction shall be periodically inspected under the direction of an engineer registered in the State of Washington with experience in the design of reinforced earth retaining walls.

### Design Parameters:

Reinforced Wall Fill:  $\phi = 34^\circ$ ,  $\gamma = 130$  PCF  
Retained Backfill:  $\phi = 30^\circ$ ,  $\gamma = 130$  PCF  
Foundation Soil:  $\phi = 36^\circ$ ,  $\gamma = 130$  PCF

### External Stability:

Minimum Factor of Safety against Base Sliding = 1.5  
Minimum Factor of Safety against Overturning = 2.0  
Minimum Factor of Safety against Bearing Capacity = 3.0

### External Loading:

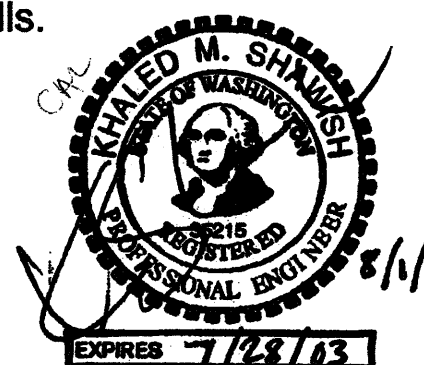
250 PSF Live Surcharge, 25 feet wide and a minimum of 5 feet from face of wall

### Internal Stability:

Minimum Factor of Safety Against Wire Overstress = 2.0  
Minimum Factor of Safety Against Wire Pullout = 1.5  
Percent Coverage of Wire = 100%

APPROVED BY PORT BLAKELY FOR MDRT REVIEW AND APPROVAL	
Ben Giddings	Date

APPROVED FOR CONSTRUCTION ONLY SHEETS WITH AUTHORIZATION SIGNATURES HAVE BEEN APPROVED FOR CONSTRUCTION			
Planning		Engineering	
Lucy Sloman	8.8.01	Mark Keller	8.7.01
Date	Date	Date	Date
Kevin Niyen	8/14/01	Ben Enjin	8/7
Date	Date	Date	Date
Bill Hoffman	8/14/01	Bob Brock	8/14/01
Date	Date	Date	Date



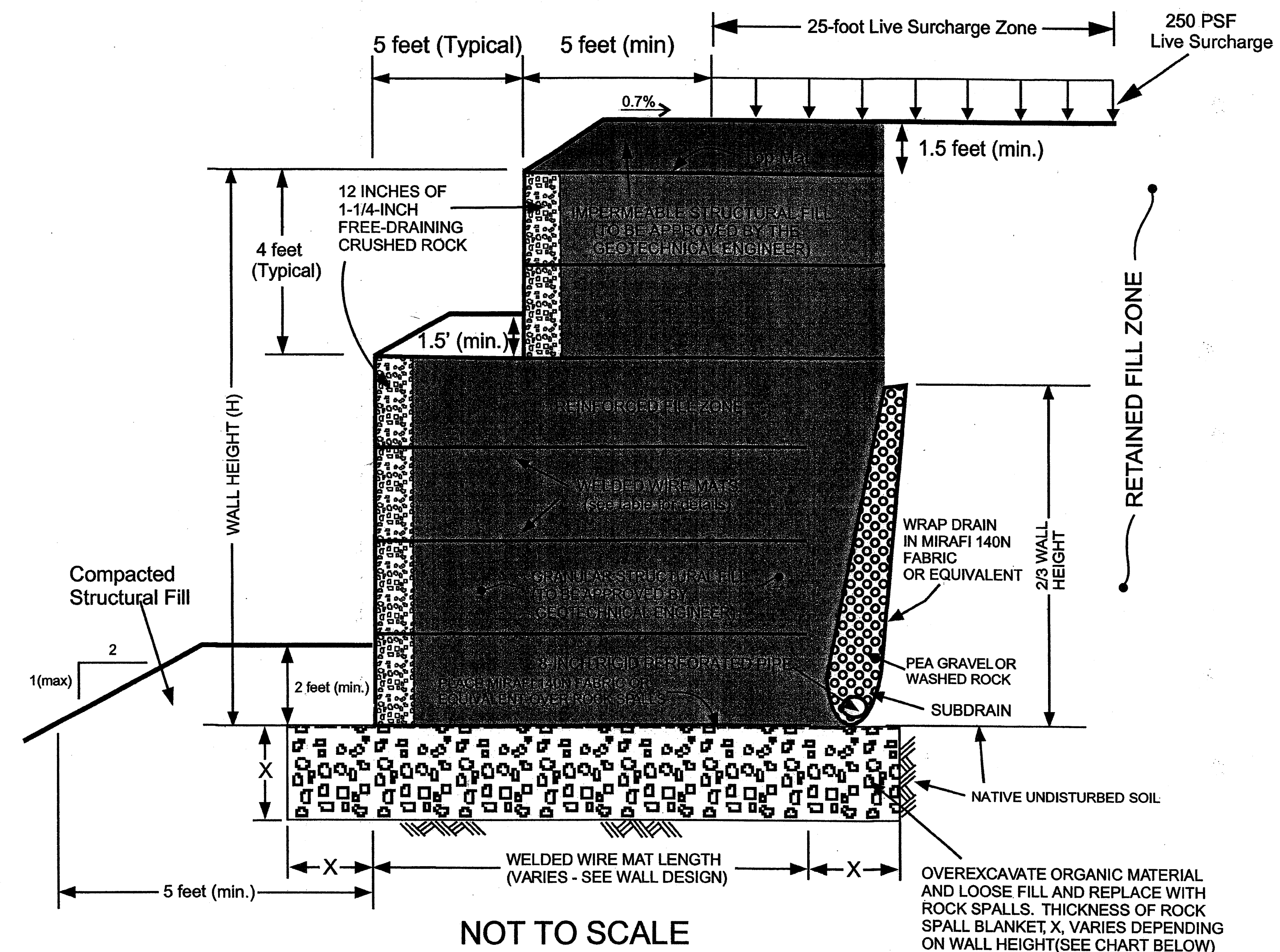
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GEOTECHNICAL ENGINEERS & GEOLOGISTS

Issaquah Highlands PSE Substation Welded Wire Retaining Wall	
FILE NO. 3035K00	FIGURE D-13088 8 of 23 GDR



## Typical Welded Wire Retaining Wall Cross-Section and Design Table

Wall Height (ft)	Wire Size Long. x Trans. (6" x 12" spacing)	Number	Mat Length (ft)	Reinforcing Layer Number and Elevation above Base Layer(ft)											
				1	2	3	4	5	6	7	8	9	10	11	12
2	W4.5 x W3.5	2	6	0	2										
4	W4.5 x W3.5	3	6	0	2	4									
6	W4.5 x W3.5	4	7	0	2	4	6								
8	W4.5 x W3.5	5	7	0	2	4	6	8							
10	W7.0 x W3.5	1	9	0											
	W4.5 x W3.5	5	9		2	4	6	8	10						
12	W7.0 x W3.5	2	11	0	2										
	W4.5 x W3.5	5	11			4	6	8	10	12					
14	W7.0 x W3.5	3	13	0	2	4									
	W4.5 x W3.5	5	13				6	8	10	12	14				
16	W7.0 x W3.5	5	15	0	2	4	6	8							
	W4.5 x W3.5	4	15						10	12	14	16			
18	W7.0 x W3.5	6	16	0	2	4	6	8	10						
	W4.5 x W3.5	4	16							12	14	16	18		
20	W7.0 x W3.5	7	18	0	2	4	6	8	10	12					
	W4.5 x W3.5	4	18								14	16	18	20	
22	W7.0 x W3.5	8	20	0	2	4	6	8	10	12	14				
	W4.5 x W3.5	4	20									16	18	20	22



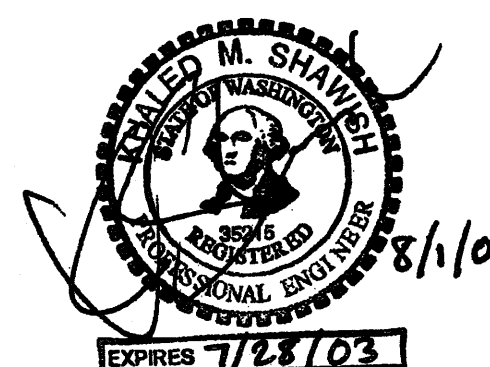
Wall Height (ft)	Thickness of Rock Spall Layer, X (ft)
Less than 8	2
8 to 14	3
14 to 22	4


APPROVED FOR CONSTRUCTION			
ONLY SHEETS WITH AUTHORIZATION SIGNATURES HAVE BEEN APPROVED FOR CONSTRUCTION			
Planning		Engineering	
W.S.	8.8.01	<i>[Signature]</i>	8.20.01
Lucy Stoman	Date	Mark Keller	Date
<i>[Signature]</i>	8/6/01	<i>[Signature]</i>	8.7
Keith Niven	Date	Dan Ervin	Date
<i>[Signature]</i>	8/26/01	<i>[Signature]</i>	8/16/01
Bill Hoffman	Date	Bob Brock	Date

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MDRT REVIEW AND APPROVAL**

\_\_\_\_\_  
Ben Giddings

\_\_\_\_\_  
Date



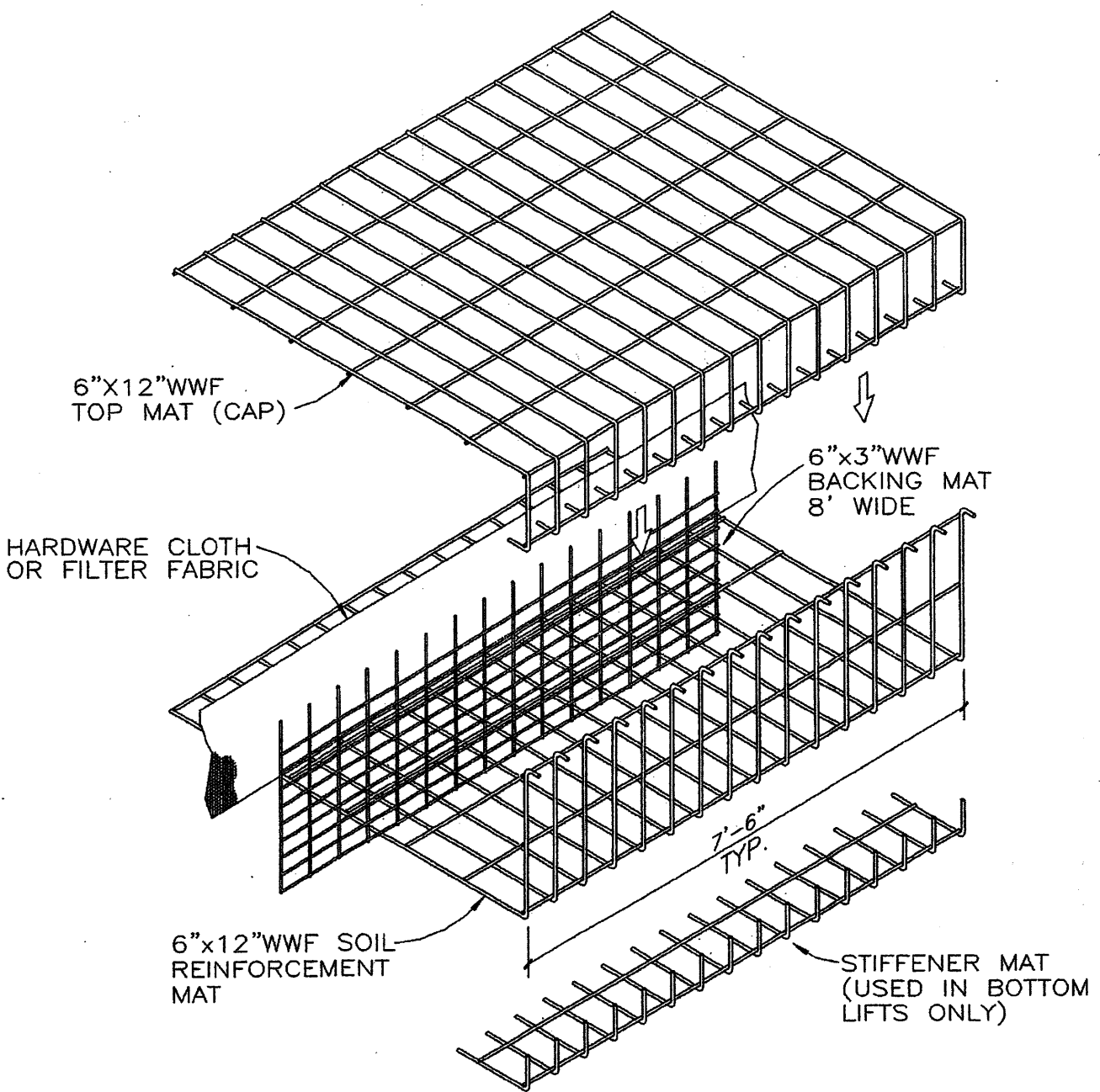
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## Issaquah Highlands PSE Substation Welded Wire Retaining Wall

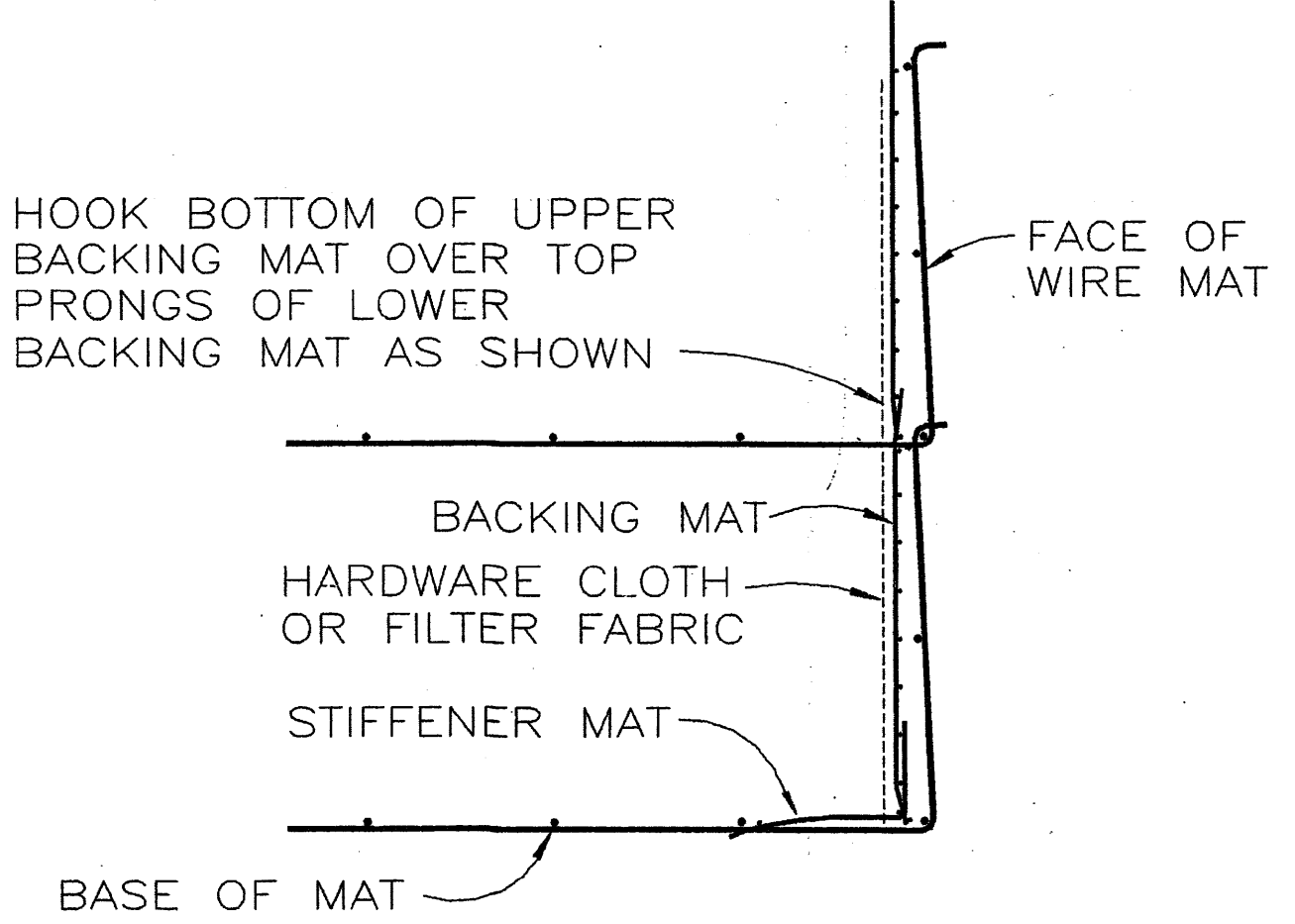
FILE NO. 3035k00	FIGURE <b>D-13088</b> 9 of 11 608
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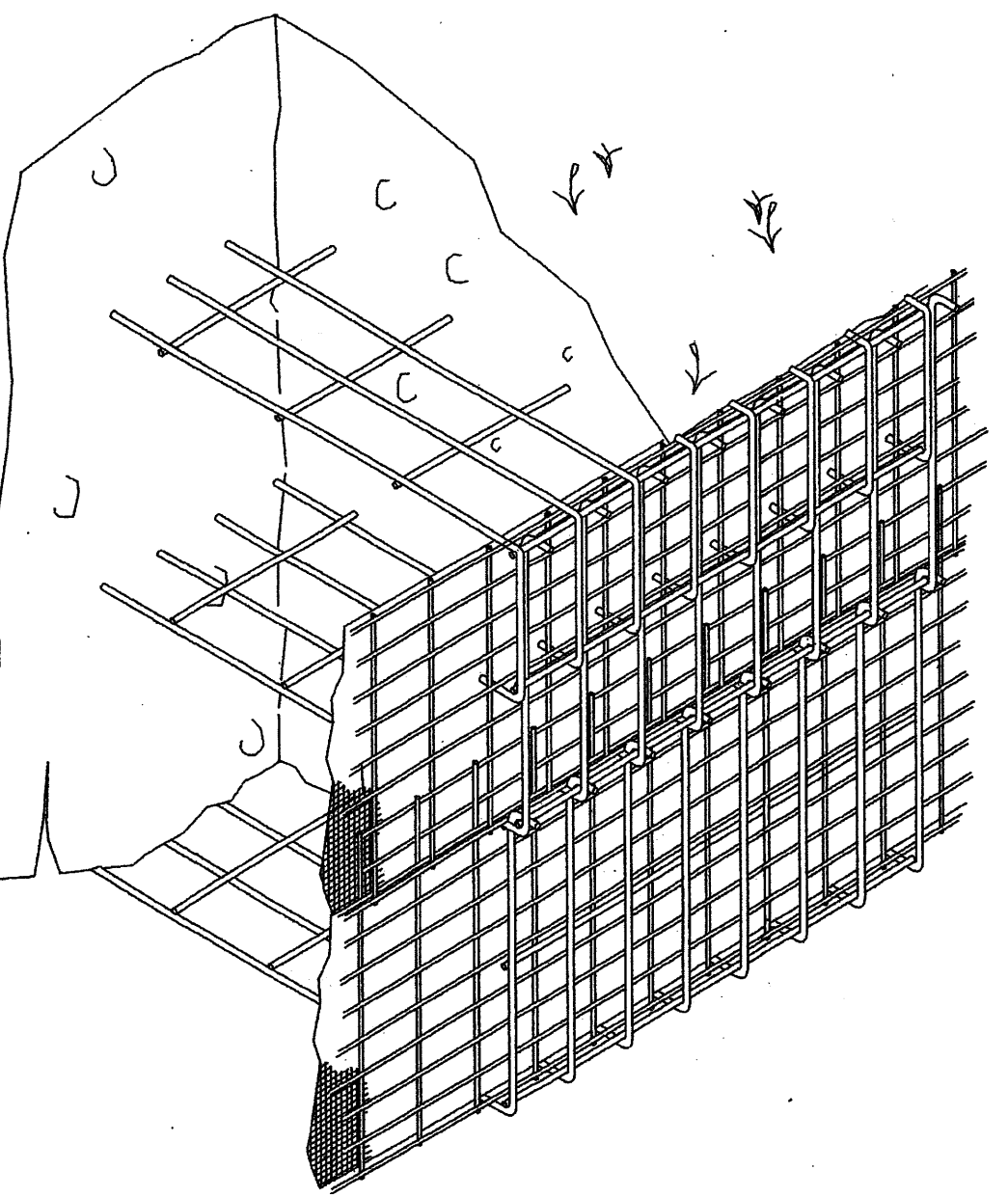
# Welded Wire Retaining Wall Construction Details



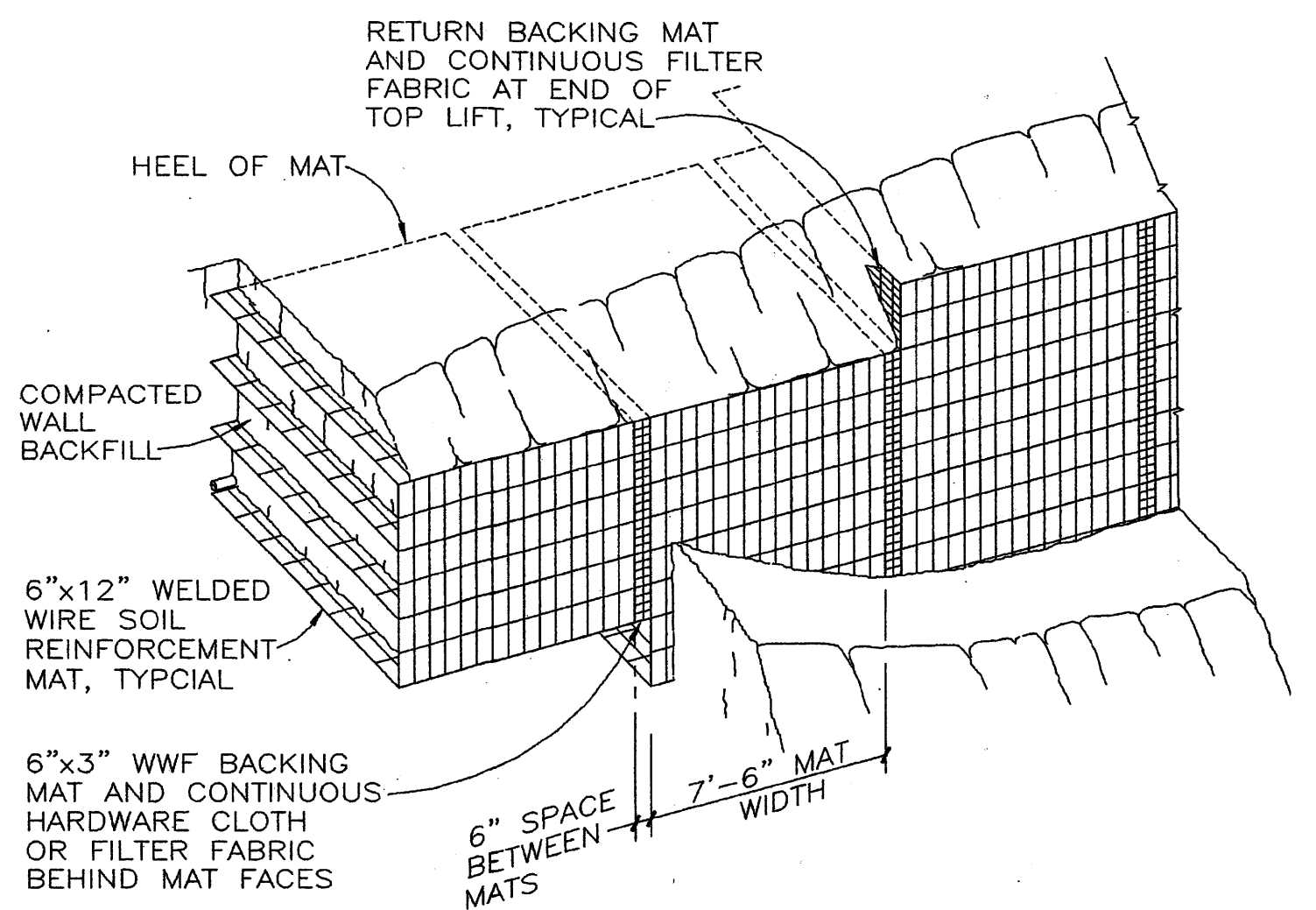
WALL COMPONENTS  
NOT TO SCALE



WALL FACE DETAIL  
NOT TO SCALE









ASSEMBLED WALL COMPONENTS  
NOT TO SCALE



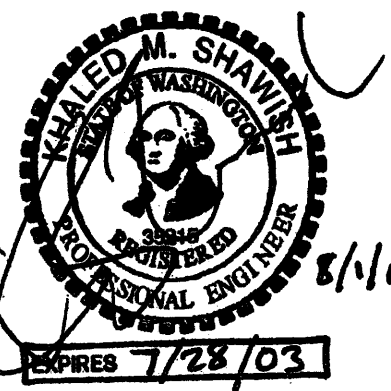
PICTORIAL ELEVATION  
NOT TO SCALE

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Ben Giddings	Date

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Planning	Engineering
 8.8.01 Lucy Sloman Date	 8.7.01 Mark Keller Date
 8/16/01 Keith Nien Date	 8.7 Dan Epin Date
 8/16/01 Bill Hoffman Date	 8/16/01 Bob Brock Date



**HILFIKER RETAINING WALLS**  
P.O. Box 2012 Eureka, Ca. 95502-2012  
707/443-5093 Fax 707/443-2891 Toll-Free 800/762-8962



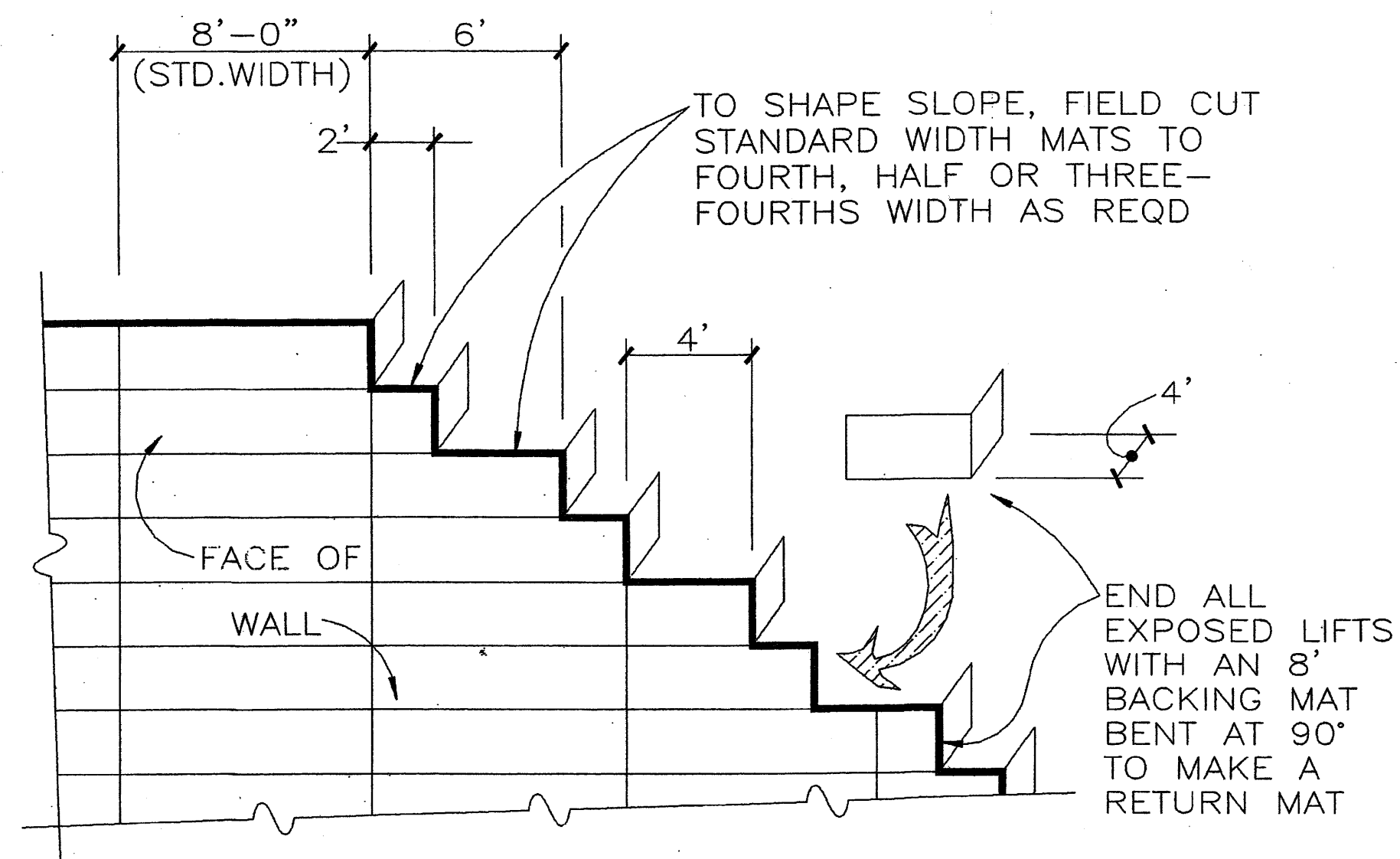
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Issaquah Highlands PSE Substation  
Welded Wire Retaining Wall

FILE NO. 3035K00  
FIGURE D-13088  
10 of 11  
GDR

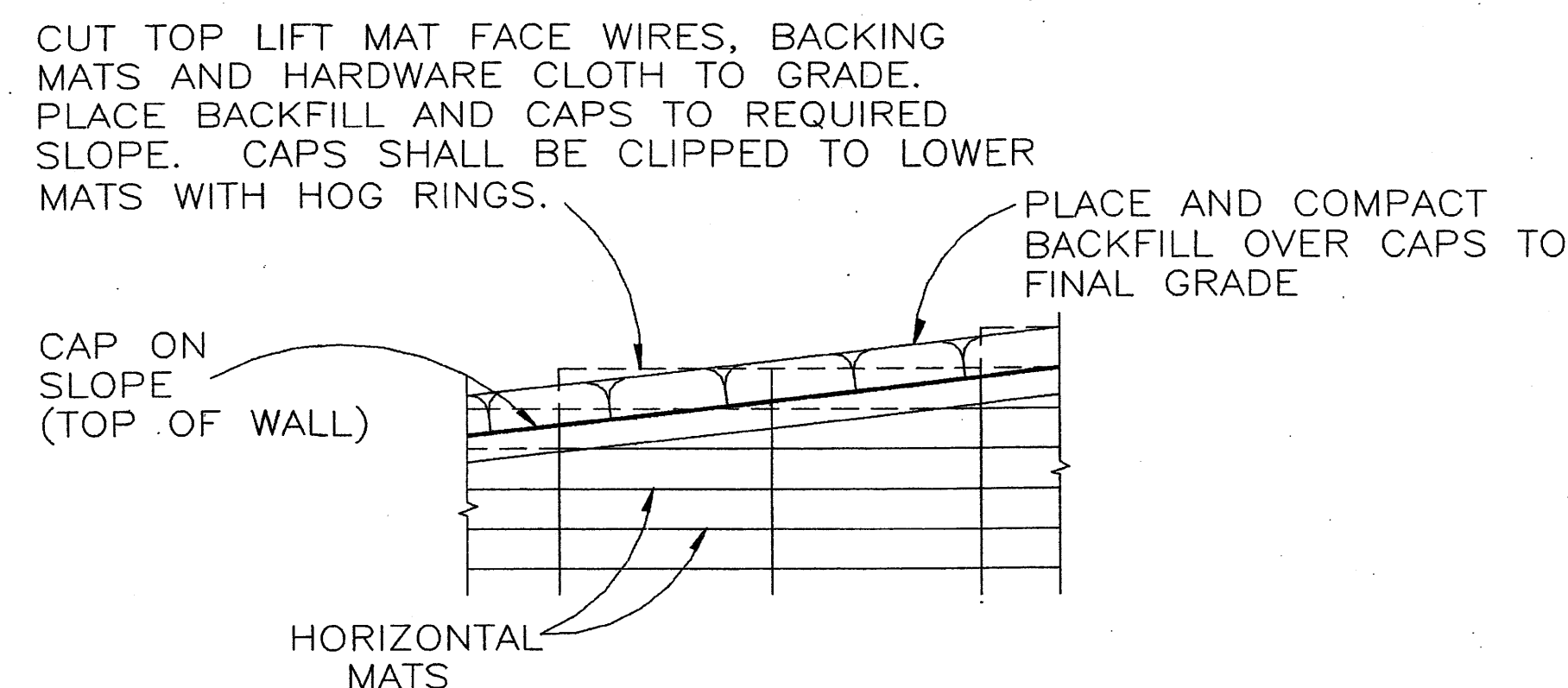


# Welded Wire Retaining Wall Construction Details

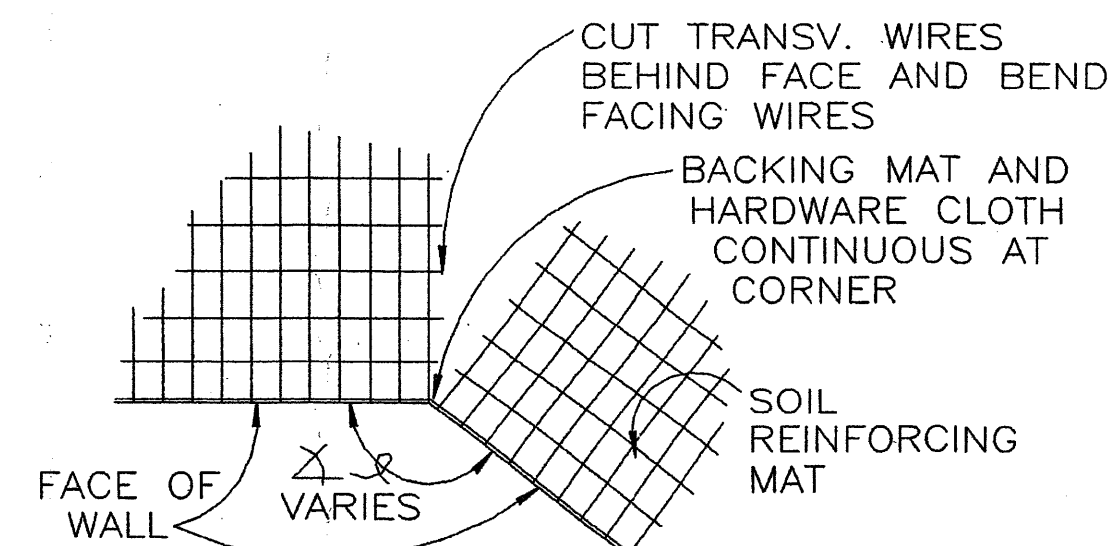


**PARTIAL TOP MAT DETAILS**  
NOT TO SCALE

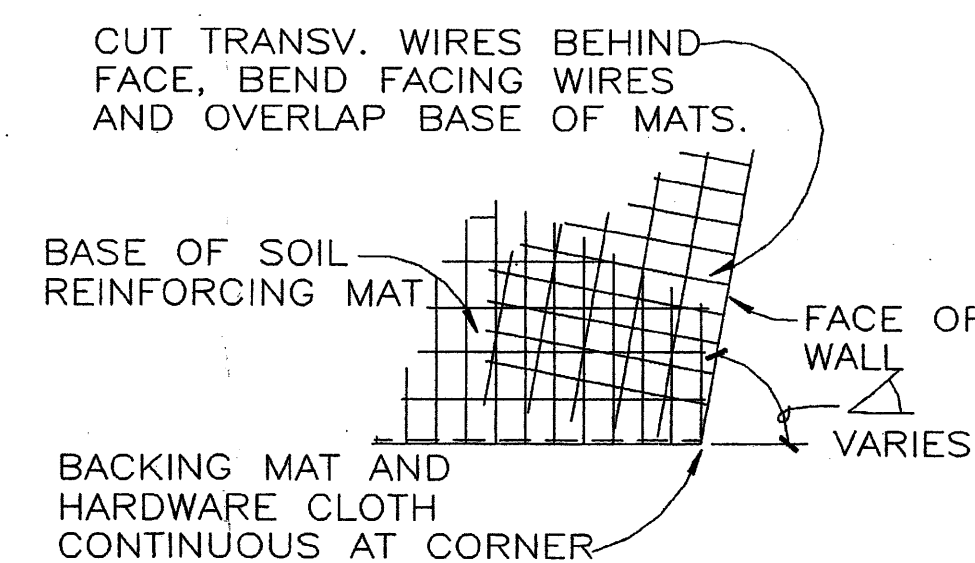
CAP MATS ARE NOT SHOWN FOR CLARITY



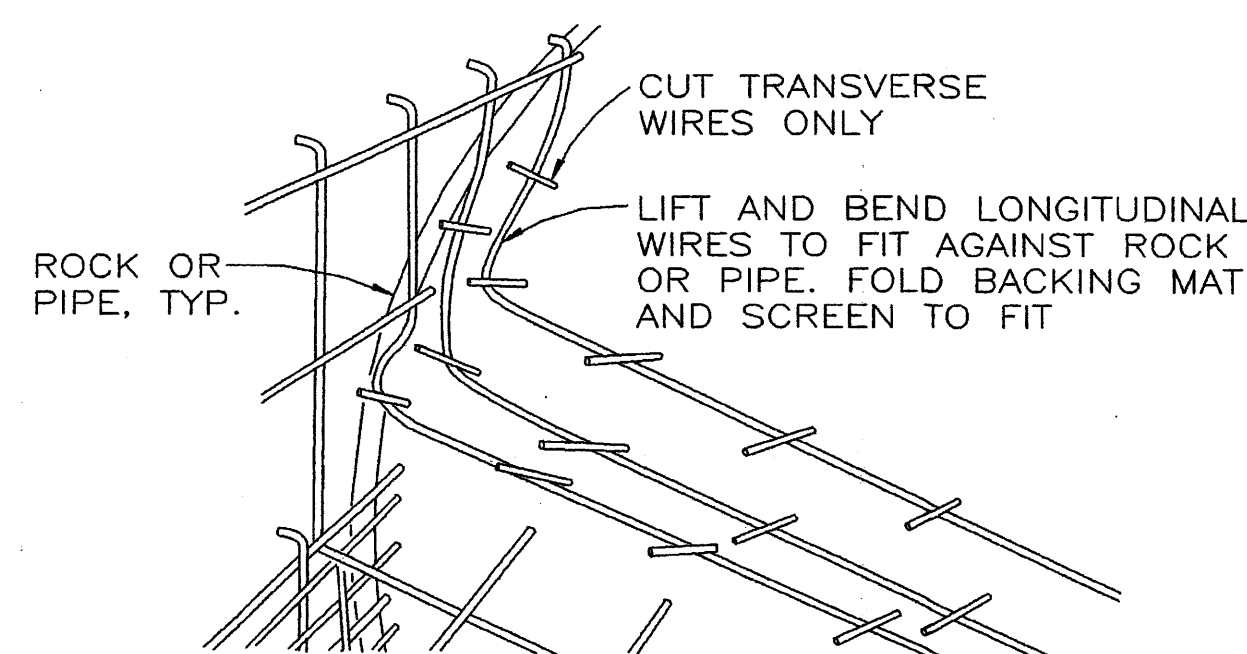
**SLOPED CAP DETAIL**  
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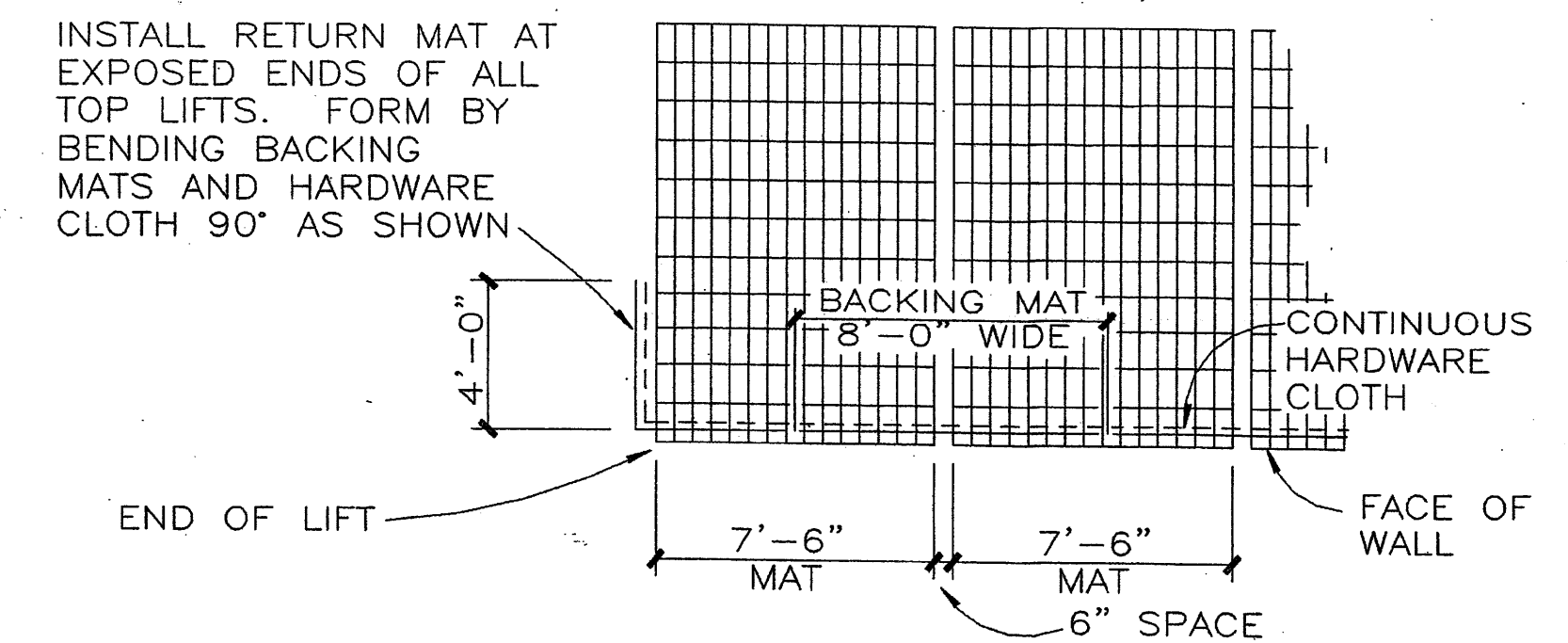
**CONCAVE ANGLE**  
NOT TO SCALE



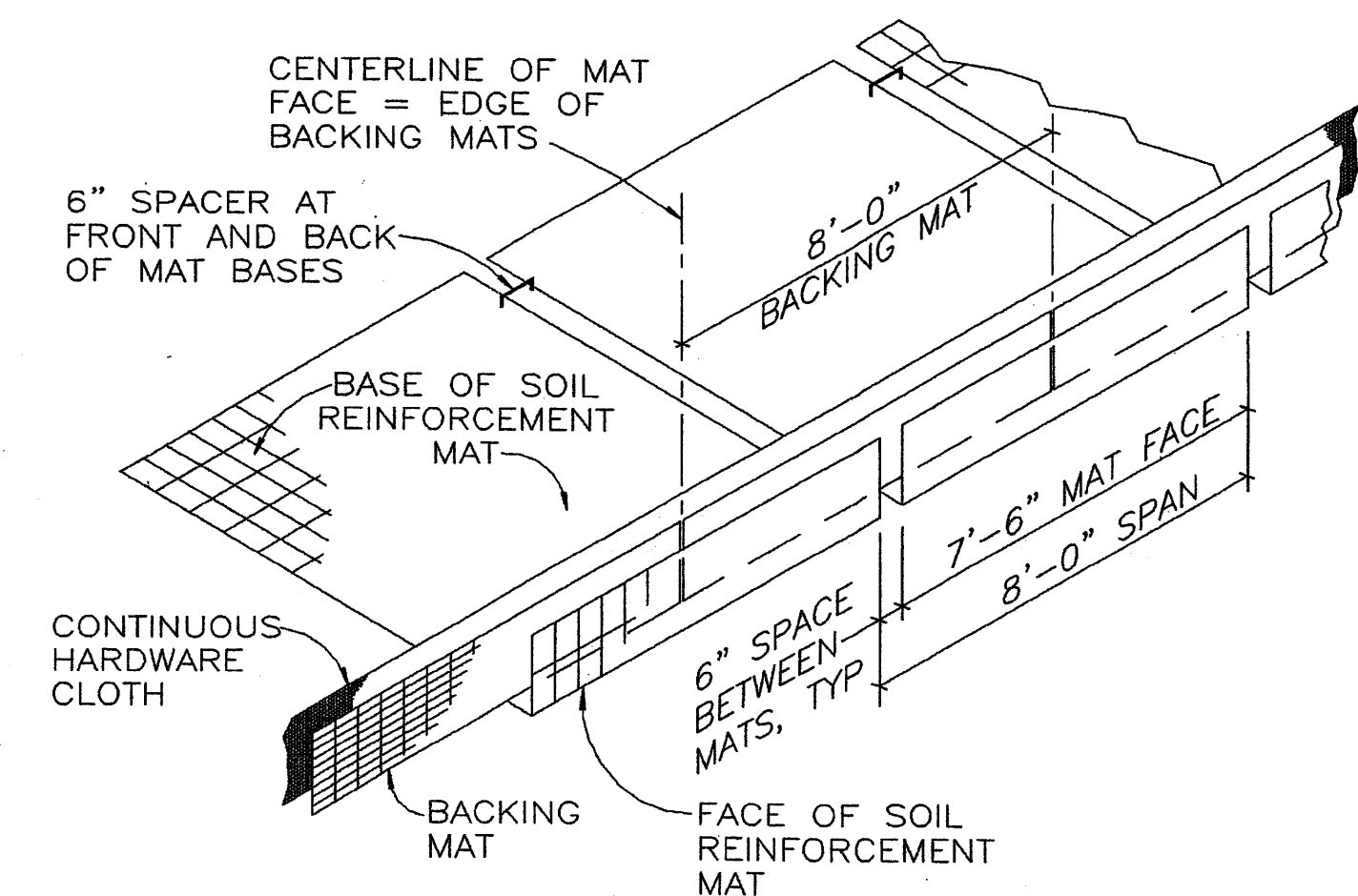
**CONVEX ANGLE**  
NOT TO SCALE



**FITTING MATS TO OBSTRUCTION**  
NOT TO SCALE



**DETAIL AT END OF TOP LIFT**  
NOT TO SCALE



**WALL COMPONENTS DETAIL**  
NOT TO SCALE

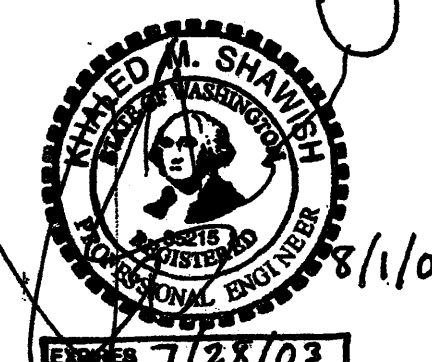
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Ben Giddings Date

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Planning	Engineering		
Lucy Sloman	8/8/01	Mark Keller	8/7/01
Keith M. Owen	8/9/01	Ben Edwin	8/7
Bill Hoffman	8/9/01	Bob Brock	8/16/01
Date	Date	Date	Date



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Issaquah Highlands PSE Substation  
Welded Wire Retaining Wall

FILE NO. 3035K00 FIGURE 13088  
11 of 11  
EDR