

# STORMWATER COLLECTION SYSTEM:

THE STORM WATER COLLECTION SYSTEM SERVING THIS SITE IS INTENDED TO BOTH COLLECT STORM WATER RUNOFF AND TO PROVIDE PARTIAL TREATMENT OF THE STORM WATER PRIOR TO DISCHARGE. THIS SYSTEM COLLECTS RUNOFF GENERATED FROM THE SITE THROUGH THE USE OF CATCH BASINS. EACH CATCH BASIN IS EQUIPPED WITH A DEEP SUMP (WHICH COLLECTS SEDIMENTS AND DEBRIS) AND AN OIL/GAS TRAP (WHICH PREVENTS THE INTRUSION OF HYDROCARBONS AND OTHER FLOATING MATERIALS FROM ENTERING THE DRAINAGE SYSTEM). WHEN THESE TWO BASIC CONTROL MECHANISMS ARE FUNCTIONING PROPERLY THEY WILL PROVIDE A REDUCTION OF CONTAMINANTS AND DEBRIS ENTERING THE STORM WATER COLLECTION AND RECHARGE SYSTEMS, AND IMPROVE DISCHARGE TO EXISTING STORMWATER FACILITIES.

THE DESCRIBED SYSTEMS RELY UPON PROPER MONITORING, OPERATIONS AND MAINTENANCE TO FUNCTION AS DESIGNED AND INTENDED. A PROGRAM OF MONITORING, OPERATIONS AND MAINTENANCE MUST BE ON-GOING THROUGHOUT THE LIFE AND USE OF THE SITE, AND IS THE OWNER'S RESPONSIBILITY. THE ACTIVITIES, DESCRIBED BELOW, ARE TO BE INITIATED AFTER COMPLETION OF THE PROJECT AND ARE NOT DIRECTLY RELATED TO CONSTRUCTION OF THE SITE, EXCEPT AS SPECIFICALLY PROVIDED.

#### MONITORING:

THE DRAINAGE SYSTEMS ARE TO BE MONITORED BY THE OWNER, WHO SHALL DIRECT AN INDIVIDUAL TO ACT AS THE SYSTEM'S MANAGER. THIS INDIVIDUAL SHALL KEEP A LOG OF ALL INSPECTIONS, OBSERVATIONS AND MAINTENANCE ACTIVITIES. THE LOG SHALL BE MADE AVAILABLE TO THE RIDEM FRESHWATER WETLANDS SECTION WITHIN TEN (10) DAYS OF ANY WRITTEN REQUEST BY THAT AGENCY.

## MONITORING FOR THIS PROJECT SHALL CONSIST OF THE FOLLOWING:

- I. ALL CATCH BASINS SHALL BE INSPECTED SEMI-ANNUALLY TO ENSURE THEY HAVE ADEQUATE SUMP CAPACITY, ALL OIL/GAS TRAPS ARE IN-PLACE, ALL GRATES AND FRAMES ARE FREE FROM STRUCTURAL DAMAGE, AND ARE DRAINING FREELY.
- 2. ALL DRAINAGE MANHOLES AND RECHARGE SYSTEMS SHALL BE ANNUALLY INSPECTED TO ENSURE THAT THEY ARE FREE FROM STRUCTURAL DAMAGE, ARE DRAINING FREELY AND ARE NOT PONDING WATER.
- 3. ALL OUTLET DRAINAGE SYSTEMS SHALL BE ANNUALLY INSPECTED TO ENSURE THAT NO EROSION IS OCCURRING AT OUTLETS, ALL OUTLETS ARE FREE-FLOWING AND NO DAMAGE HAS OCCURRED AS PART OF SITE MAINTENANCE OR RELATED ACTIVITIES.

### MAINTENANCE:

- I. PARKING AREAS AND ACCESS WAYS SHALL BE SWEPT CLEAN OF DEBRIS AND ACCUMULATION OF SILT OR SAND ON A REGULAR BASIS. A SPRING AND FALL CLEANING SCHEDULE IS RECOMMENDED.
- 2. ALL CATCH BASINS SHALL HAVE THE SUMPS CLEANED AT ANY TIME OF THE YEAR WHEN 2' OR LESS SPACE EXISTS BELOW THE OUTLET INVERT, OR A MINIMUM OF ONCE PER YEAR, REGARDLESS OF SUMP ACCUMULATION. ALL DEBRIS FROM THE CLEANING SHALL BE DISPOSED OF IN NON-WETLAND AREAS AND IN A MANNER AS PRESCRIBED BY LOCAL AND STATE REGULATIONS.
- 3. ALL HYDROCARBON TRAPS SHALL BE CHECKED FOR PHYSICAL INTEGRITY AND RE-SEALED IMMEDIATELY AFTER EACH CATCH BASIN CLEANING.
- 4. OIL ABSORBING "PILLOWS" OR OTHER MEANS SHALL BE USED TO REMOVE ACCUMULATIONS OF HYDROCARBONS (OIL/GREASE) IN CATCH BASINS THAT ARE REGULARLY OBSERVED TO CONTAIN HYDROCARBONS, THAT DO NOT EVAPORATE BETWEEN INSPECTIONS.
- 5. ALL BROKEN, LEAKING OR OTHERWISE DAMAGED STRUCTURES SHALL BE REPAIRED PROMPTLY UPON DISCOVERY. CATCH BASIN GRATES OR MANHOLE COVERS SHALL BE REPLACED WITH SIMILAR WEIGHT AND LOADING-CHARACTERISTIC REPLACEMENT PARTS. THE REPLACEMENT PARTS FOR ANY PIPE OR DRAINAGE STRUCTURE SHALL MATCH THE ORIGINAL DESIGN SPECIFICATIONS.
- 6. ANY VISIBLY-ERODED SITE AREAS SHALL BE REPAIRED IMMEDIATELY.

## SITE CONSTRUCTION NOTES:

## GENERAL NOTES:

- I. ALL WORK AND MATERIALS SHALL CONFORM WITH THE PROVISIONS OF THE RIDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (2004), THE PROJECT SPECIFICATIONS AND APPLICABLE CITY OF WOONSOCKET STANDARDS OR REQUIREMENTS.
- 2. UNDERGROUND UTILITY INFORMATION SHOWN ON THE DRAWINGS HAS BEEN PLOTTED BY THE SURVEYOR FROM RECORD DATA AND MAY NOT BE CORRECT. PRIOR TO ANY EXCAVATION, CONTACT DIG SAFE TO ESTABLISH MORE PRECISE LOCATIONS ON THE GROUND.
- 3. INSTALL 4 INCHES OF LOAM AND SEED IN ALL AREAS DISTURBED BY CONSTRUCTION THAT ARE NOT DESIGNATED FOR ANOTHER SURFACE TREATMENT.

# GENERAL CONSTRUCTION REQUIREMENTS:

- I. ANY REFUELING OF CONSTRUCTION VEHICLES AND EQUIPMENT SHALL TAKE PLACE AT LEAST 100 FEET DISTANCE FROM WETLAND AREAS. FUELING AND MECHANICAL ADJUSTMENTS TO EQUIPMENT SHALL NOT OCCUR NEAR THE ENTRANCE TO ANY DRAINAGE SYSTEM.
- 2. ANY ON-SITE DISPOSAL OF SOLID WASTE, INCLUDING EARTH MATERIALS SHALL NOT OCCUR WITHIN 100 FEET OF WETLAND AREAS OR WITHIN THE CONSTRUCTION AREA (UNLESS OTHERWISE DESIGNATED). ANY MATERIAL NOT RE-USED ON SITE SHALL BE HAULED OFF SITE TO AN AUTHORIZED, LEGAL LOCATION.
- 3. ALL CONTRACTORS AND SUBCONTRACTORS SHALL BE INFORMED THAT THE CLEANING OF EQUIPMENT IS PROHIBITED IN AREAS WHERE THE WASH-WATER WILL DRAIN DIRECTLY TO SITE DRAINAGE SYSTEMS.
- 4. THE CONTRACTOR IS RESPONSIBLE FOR DUST CONTROL, THIS OPERATION SHALL INCLUDE SWEEPING ALL PAVED SURFACES LOCATED IN THE SITE AREA AND ANY OFF-SITE AREAS THAT ARE IMPACTED BY SITE CONSTRUCTION ON A REGULAR BASIS.
- 5. THE CONTRACTOR SHALL LIMIT OPERATIONS THAT RESULT IN THE GENERATION OF AIRBORNE SEDIMENT. ONLY CLEAN, POTABLE WATER SHALL BE USED TO CONTROL DUST.

# EROSION AND SEDIMENTATION CONTROL

- I. ALL PERIMETER EROSION AND SEDIMENTATION CONTROLS MUST BE INSTALLED PRIOR TO THE COMMENCEMENT OF EARTHWORK AT THE SPECIFIC AREAS INDICATED ON THE PLANS. VEGETATIVE CLEARING MAY OCCUR PRIOR TO INSTALLATION OF SUCH CONTROLS, BUT NO GRUBBING, GRADING, FILLING, OR OTHER SOIL DISTURBANCE SHALL OCCUR PRIOR TO CONTROL INSTALLATION.
- 2. NO WORK IS TO OCCUR ON THE WETLAND SIDE OF PERIMETER EROSION AND SEDIMENTATION CONTROLS. ALL PERIMETER CONTROLS SERVE AS THE PROJECT LIMIT OF CLEARING AND SURFACE DISTURBANCE.

- 3. STONES, BRUSH, CONSTRUCTION DEBRIS, LITTER, OR OTHER SUCH MATERIALS SHALL NOT BE DEPOSITED ON THE WETLAND SIDE OF PERIMETER EROSION AND SEDIMENTATION CONTROLS.
- 4. ALL PERIMETER EROSION AND SEDIMENTATION CONTROLS MUST BE PROPERLY MAINTAINED AND MUST REMAIN IN PLACE UNTIL SOILS HAVE STABILIZED TO THE SATISFACTION OF THE ENGINEER AND/OR CRMC. CONTROLS ARE TO BE INSPECTED WEEKLY AND IMMEDIATELY FOLLOWING ALL PRECIPITATION EVENTS THAT INCLUDE RAINFALL OF O.I" OR MORE.
- 5. THE ENGINEER RESERVES THE RIGHT TO SPECIFY ADDITIONAL CONTROLS AS CONDITIONS MAY WARRANT. ACCESSIBLE RESERVES OF HAY BALES AND STAKES ARE TO BE MAINTAINED ON SITE FOR ROUTINE MAINTENANCE AND IN THE EVENT OF UNANTICIPATED PROBLEMS REQUIRING IMMEDIATE RESPONSE.
- 6. THE TOE OF FILL SLOPES SHALL REMAIN AT LEAST ONE FOOT INSIDE OF ALL EROSION CONTROLS. UNDER NO CIRCUMSTANCE SHALL THE EROSION CONTROLS BE COVERED WITH FILL MATERIAL. ANY FILL MATERIAL THAT IS PLACED ON OR AGAINST EROSION CONTROLS SHALL BE IMMEDIATELY REMOVED.
- 7. ALL HAY BALES ARE TO BE INSTALLED IN ACCORDANCE WITH THE DETAILS. THEY SHALL BE DOUBLE STAKED AND INSTALLED WITH THE LOWER 4 INCHES BURIED AND BACK FILLED WITH COMPACTED SOIL MATERIAL.
- 8. HAY BALE CHECK DAMS ARE TO INSTALLED AT ANY AREA WHERE STORM WATER HAS THE OPPORTUNITY TO DRAIN AND SCOUR ALONG THE TOE OF NEWLY-CREATED SLOPES LOCATED INSIDE THE PERIMETER HAY BALES.
- 9. ALL DISTURBED SOILS EITHER NEWLY CREATED, OR EXPOSED, LOCATED WITHIN 50 FEET OF WETLANDS PRIOR TO OCTOBER IS OF ANY CALENDAR YEAR SHALL BE SEEDED OR PROTECTED BY THAT DATE. ANY AREAS THAT DO NOT HAVE ADEQUATE VEGETATIVE STABILIZATION BY NOVEMBER IS OF THE SAME YEAR MUST BE STABILIZED BY INSTALLING EROSION CONTROL MATTING, HAY MULCH, OR EQUIVALENT.
- 10. SOIL STOCKPILES TO REMAIN IDLE MORE THAT 30 CALENDAR DAYS ARE TO BE RINGED WITH EITHER SILT FENCE OR STAKED HAY BALES AND SEEDED WITH A CONSERVATION GRASS MIX.
- II. ANY DISTURBED SOILS NOT DESIGNATED FOR OTHER SURFACE TREATMENT ARE TO BE LOAMED ( 4 INCHES) AND SEEDED IMMEDIATELY FOLLOWING FINAL GRADING.
- 12. APPROPRIATE PRECAUTIONS SHOULD BE TAKEN TO PREVENT CONSTRUCTION EQUIPMENT FROM TRACKING SOIL BEYOND PROJECT LIMITS. TEMPORARY CRUSHED-STONE CONSTRUCTION ENTRANCES ARE TO UTILIZED TO CONTROL SUCH TRACKING. STONE IS TO BE REPLACED ROUTINELY WHEN IT BECOMES LADEN WITH SOIL AND LOOSES IT EFFECTIVENESS.
- 13. THE CONTRACTOR IS RESPONSIBLE FOR PROPER EROSION CONTROL BOTH ON AND OFF SITE AND SHALL UTILIZE EROSION CONTROL MEASURES WHERE NEEDED, REGARDLESS OF WHETHER THE CONTROLS ARE SPECIFIED ON

#### DRAINAGE WORK:

- I. THE DRAINAGE SYSTEM SHALL BE INSTALLED BY STARTING AT THE DOWNGRADIENT END AND WORKING UPGRADIENT.
- 2. SILT FENCE SHALL BE INSTALLED AT THE OUTFALL OF ALL TEMPORARY BASINS AND SWALES AND SHALL REMAIN IN PLACE UNTIL ALL TRIBUTARY AREAS ARE STABILIZED.
- 3. RUNOFF SHALL NOT BE ALLOWED TO ENTER PIPES FROM UN-STABILIZED SURFACES.
- 4. TRENCH EXCAVATIONS SHALL BE LIMITED TO THE MINIMUM LENGTH REQUIRED FOR DAILY PIPE INSTALLATION. ALL TRENCHES SHALL BE BACK FILLED AS SOON AS POSSIBLE. THE UPSTREAM ENDS OF PIPES SHALL BE CLOSED NIGHTLY WITH PLYWOOD CAPS.
- 5. IT IS IMPORTANT THAT BINDER COURSE BE INSTALLED IN PARKING AND ACCESS ROADWAYS AS SOON AS FEASIBLE AS THESE AREAS WILL FUNCTION AS A CONDUIT FOR RUNOFF. FRAME \$ GRATE/COVER SETS MUST BE INSTALLED TO THE ELEVATION OF THE TOP OF THE BINDER COURSE. A SECOND ADJUSTMENT WILL BE NECESSARY PRIOR TO INSTALLING THE SURFACE COURSE.

## WATER SUPPLY, SEWER AND SITE UTILITIES:

- I. CARE SHALL BE TAKEN TO ASSURE THAT UTILITY TRENCHES DO NOT CHANNELIZE RUNOFF TOWARDS WETLAND AREAS, EXISTING STREETS AND OTHER OFF-SITE SENSITIVE AREAS.
- 2. WATER LINES AND APPURTENANCES SHALL BE INSTALLED IN ACCORDANCE WITH THE CONSTRUCTION SPECIFICATIONS AND LOCAL OR STATE REQUIREMENTS.
- 3. SEWER LINES, MANHOLES AND APPURTENANCES SHALL BE INSTALLED IN ACCORDANCE WITH THE CONSTRUCTION SPECIFICATIONS AND LOCAL OR STATE REQUIREMENTS.

# LANDSCAPING:

- I. LANDSCAPING SHALL OCCUR AS SOON AS POSSIBLE AFTER GENERAL CONSTRUCTION OPERATIONS IN ORDER TO PROVIDE PERMANENT STABILIZATION OF DISTURBED SURFACES.
- 2. THE CONTRACTOR SHALL UTILIZE SLOPE STABILIZATION METHODS AND MATERIALS THAT MAY BE ADJUSTED TO VARYING SITE CONDITIONS. EROSION CONTROL BLANKETS OR MIRAFI MIRAMET (OR SIMILAR PRODUCTS) SHALL BE MADE AVAILABLE ON SITE FOR EMERGENCY USE.
- 3. IF THE SEASON OR ADVERSE WEATHER CONDITIONS DO NOT PERMIT PROPER GROWTH OF VEGETATION, TEMPORARY MULCHING WITH STRAW OR OTHER METHODS SHALL BE PROVIDED.
- 4. ALL DISTURBED SURFACES TO BE PLANTED SHALL RECEIVE A MINIMUM OF 4" OF TOPSOIL WITH THE SURFACE SMOOTHED TO THE SPECIFIED GRADES. REFER TO LANDSCAPE PLANS FOR ADDITIONAL INFORMATION.

DEPARTMENT OF ELIVIRONMENTAL MANAGEMENT

OFFICE OF WATER RESOURCES

FRESHWATE | WETLANDS PROGRAM

APPROVE ) WITH CONDITIONS

AS SPECIFIED IN THE LETTER OF APPROVAL

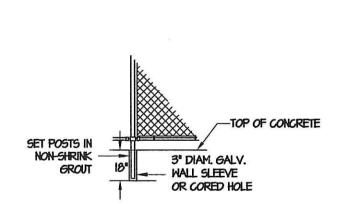
NO CHANGES ALLOW ED WITHOUT PRIOR APPROVAL

APPROVED PLANS MUST BE AT CONSTRUCTION

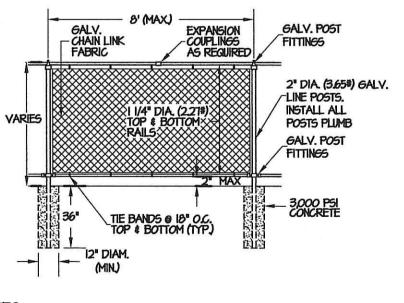
MAY 2 5 2007

MAY 225520097 FILE # 07-0088

5. SEED APPLICATION SHALL BE IN ACCORDANCE WITH THE MANUFACTURERS DIRECTIONS.



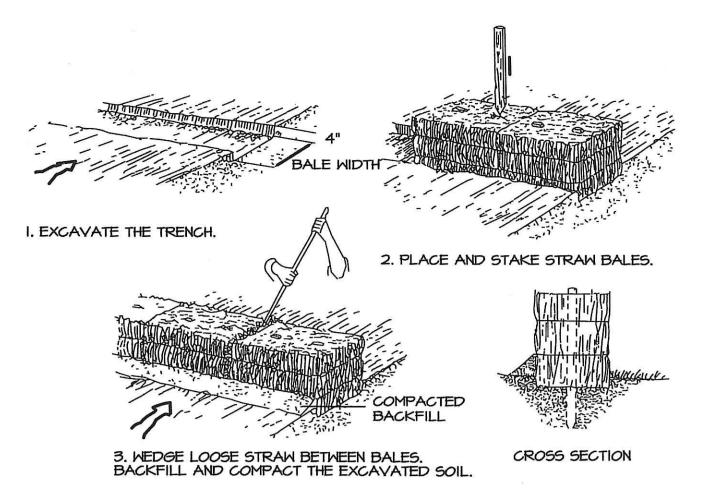
# WALL FENCE DETAIL



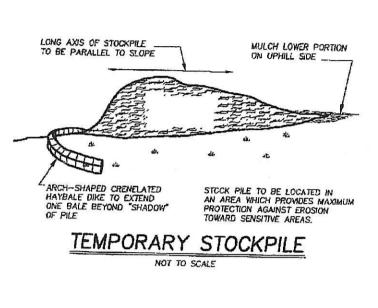
- I. ALL COMPONENTS TO BE VINYL COATED & FINISHED BLACK. 2. PROVIDE 2 1/2" DIA. (5.74#) END AND CORNER POSTS WITH I I/4" DIA. (2.27#) INTERMEDIATE RAIL AND 3/8" TRUSS ROD WITH TURNBUCKLE.
- 3. REFER TO SITE DRAWINGS FOR FABRIC SIZE AND LOCATION OF VINYL SLATS (VERTICAL).

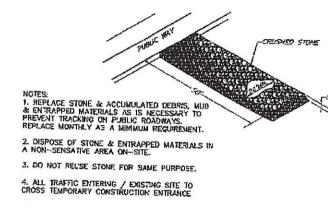
angartin wence 4' CHAIN LINK FENCE DETAIL

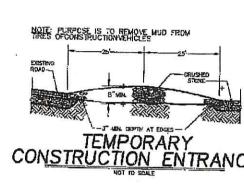
NOT TO SCALE

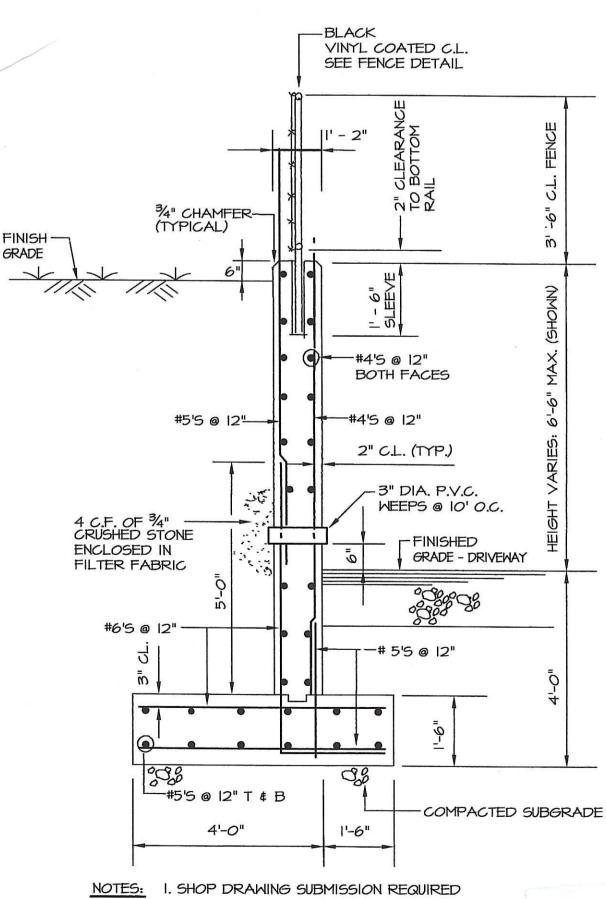


# HAY BALE DETAIL









2. PROVIDE EXPANSON JOINTS AT 64' O.C. MAX.

3. 4000 PSI CONCRETE/GRADE 60 REINFORCING

RETAINING WALL DETAIL SCALE 为" = 1'-0"

OF

Copyright @ 2006 by a 1 deelgns ltd. All rights reserved. No part of this publication may be reprodu stored in a retrieval system

S 7 

GENERAL NOTES \$ EROSION CONTROL

C-IDHG **C-2** 

1/26/07

