

HUDSON SHORES PARK SUSTAINABLE SHORELINE DESIGN

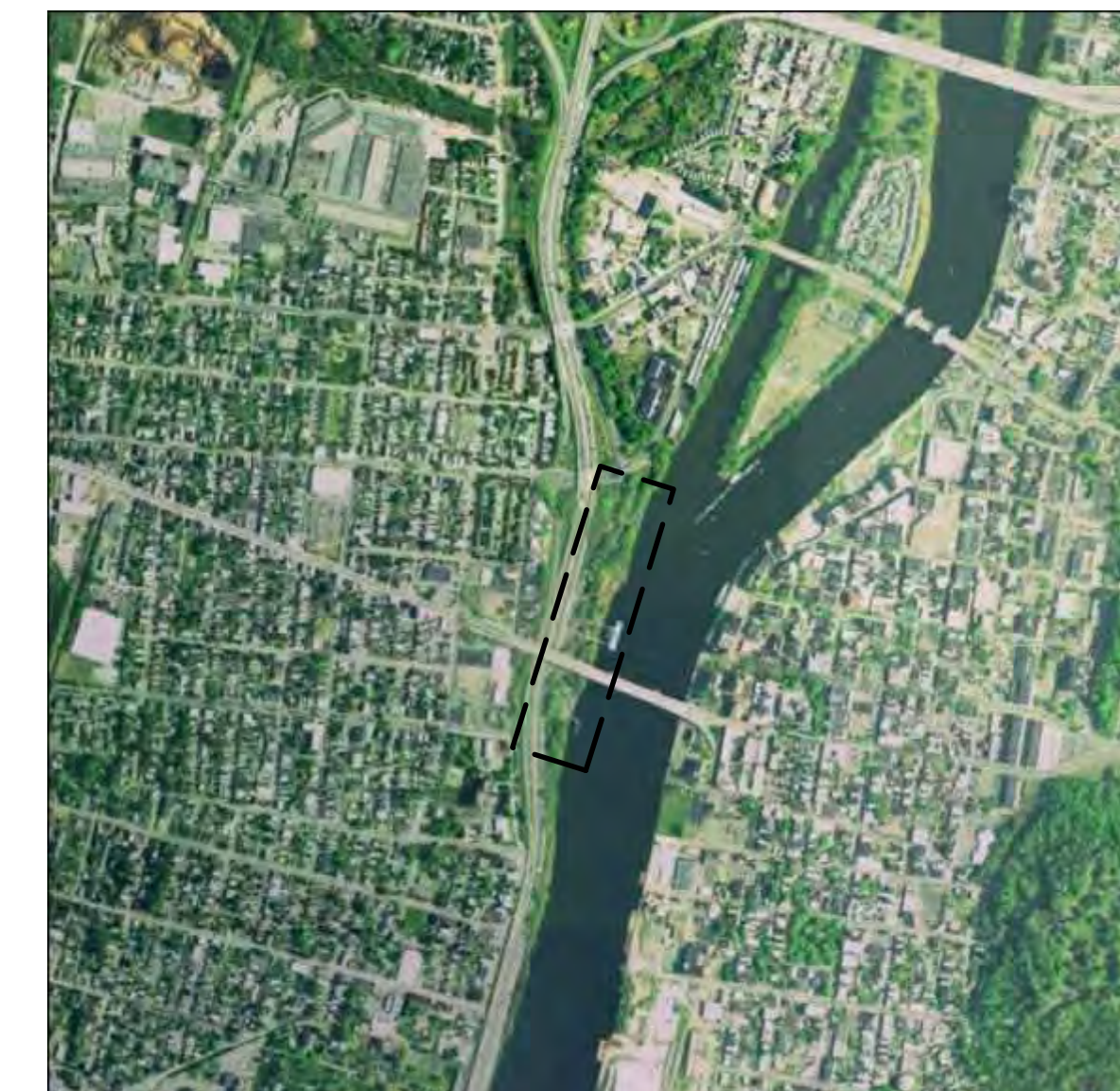
PREPARED FOR:

NEW ENGLAND INTERSTATE WATER POLLUTION CONTROL COMMISSION
 650 SUFFOLK STREET
 SUITE 410
 LOWELL, MA 01854

DRAWINGS - DRAFT FINAL DESIGN

NOT TO BE USED FOR CONSTRUCTION

PROJECT LOCATION:



DRAWING NO.	TITLE
G001	COVER SHEET
G002	GENERAL NOTES
V101	EXISTING CONDITIONS
C001	DEMOLITION PLAN
C101	INVASIVE SPECIES REMOVAL
C201	PROPOSED SLOPE REGRADING
L100	LANDSCAPE PLAN 1
L101	LANDSCAPE PLAN 2
L102	LANDSCAPE PLAN 3
L103	LANDSCAPE PLAN 4
L400	STAIR AND BOULDER ENLARGEMENT
C500	EROSION & SEDIMENT CONTROL DETAILS
C501	PLANTING DETAILS
C502	PLANTING & SITE DETAILS

DIG-SAFE

CONTRACTOR SHALL CALL DIG-SAFE CALL CENTER AT 1-888-344-7233 AT LEAST 72 HOURS PRIOR TO STARTING ANY EXCAVATION. SATURDAYS, SUNDAYS, AND LEGAL HOLIDAYS ARE NOT TO BE INCLUDED IN THE REQUIRED 72 HOUR NOTICE.

THIS DOCUMENT WAS PREPARED FOR THE HUDSON RIVER ESTUARY PROGRAM, NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION, WITH SUPPORT FROM THE NEW YORK STATE ENVIRONMENTAL PROTECTION FUND, IN COOPERATION WITH THE NEW ENGLAND INTERSTATE WATER POLLUTION CONTROL COMMISSION. THE VIEWPOINTS EXPRESSED HERE DO NOT NECESSARILY REPRESENT THOSE OF NEIWPCC OR NYS DEC, NOR DOES MENTION OF TRADE NAMES, COMMERCIAL PRODUCTS, OR CAUSES CONSTITUTE ENDORSEMENT OR RECOMMENDATION FOR USE.



Department of Environmental Conservation

Hudson River Estuary Program

JOB MANAGER M. STOTTLER DESIGN E. REDDING/J. WESOLOWSKI DRAFTING C. JENKINS CHECK

REV NO	DATE	DESCRIPTION	DWN	PROJ
			CHK	APP.
REVISIONS				



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<p>NEW ENGLAND INTERSTATE WATER POLLUTION CONTROL COMMISSION</p>	COVER	
	PREPARED BY: CHJ/JSW	DWG. NO: G001
<p>NEW YORK STATE OF OPPORTUNITY</p>	<p>Department of Environmental Conservation</p>	<p>Hudson River Estuary Program</p>
SCALE: AS NOTED	CONTRACT NO.	

JOB MANAGER M. STOTTLER DESIGN E. REDDING/J. WESOLOWSKI DRAFTING C. JENKINS CHECK

GENERAL NOTES

- THE CITY OF WATERLIET (THE CITY) WILL DESIGNATE AN AUTHORIZED REPRESENTATIVE TO REPRESENT THE CITY DURING THE CONSTRUCTION PHASE. THIS AUTHORIZED REPRESENTATIVE MAY BE CITY STAFF OR A CONSULTANT. THE CITY'S STAFF AND/OR AUTHORIZED REPRESENTATIVES ARE COLLECTIVELY REFERRED TO HEREIN AS THE CITY.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO FULFILL ALL REQUIREMENTS OF THE CONTRACT AND ALL AMENDMENTS THERETO, INCLUDING BUT NOT LIMITED TO, GENERAL CONDITIONS, SPECIAL CONDITIONS, SPECIFICATIONS AND THESE DRAWINGS IN ORDER TO COMPLETE THIS PROJECT.
- THE CONTRACTOR SHALL ASSUME THERE WILL BE A KICKOFF MEETING IN THE WATERLIET AREA AT THE START OF THE PROJECT (THE PRIME CONTRACTOR AND SUBCONTRACTORS SHALL ATTEND) AND WEEKLY UPDATE CONFERENCE CALLS DURING THE TREATMENT PROCESS (SUBCONTRACTORS SHALL ATTEND AS NEEDED). DAILY FIELD REPORTS SHALL BE DELIVERED TO THE CITY FOR REVIEW AND ACCEPTANCE.
- PRIOR TO THE COMMENCEMENT OF THE WORK, THE CONTRACTOR SHALL SUBMIT A HEALTH AND SAFETY PLAN DETAILING THE HEALTH AND SAFETY SYSTEMS AND PROCEDURES WHICH WILL APPLY DURING THE TERM OF THE CONTRACT. THE HEALTH AND SAFETY PLAN WILL BE REVIEWED BY AND WILL BE SUBJECT TO APPROVAL BY THE CITY.
- THE CONTRACTOR SHALL HOLD DAILY SAFETY MEETINGS BEFORE THE START OF WORK.
- ALL WORK SHALL BE COORDINATED AND PERFORMED IN ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL REGULATIONS.
- THE CITY IS AUTHORIZED TO ISSUE STOP WORK ORDERS DIRECTING THAT CONSTRUCTION ACTIVITIES CEASE IMMEDIATELY. THE CONTRACTOR SHALL, EFFECTIVE IMMEDIATELY UPON STOP WORK ORDER ISSUANCE, CEASE TO ISSUE ANY FURTHER ORDERS AND/OR SUBCONTRACTS FOR MATERIALS OR SERVICES IN SUPPORT OF THIS CONTRACT. THE CONTRACTOR SHALL IMMEDIATELY COMPLY WITH THE ORDER AND TAKE ALL REASONABLE STEPS TO MINIMIZE THE INCURRENCE OF COSTS ALLOCABLE TO THE WORK COVERED BY THIS ORDER DURING THE PERIOD OF WORK STOPPAGE.
- ALL MATERIALS SHALL BE PROVIDED AND WORK SHALL BE PERFORMANCE IN CONFORMANCE WITH THE NEW YORK STATE DEPARTMENT OF TRANSPORTATION OFFICE OF ENGINEERING STANDARD SPECIFICATIONS DATED MAY 1, 2008, AS AMENDED, AND ALL ADDENDA THERETO, UNLESS NOTED OTHERWISE.
- THE CITY SHALL OBTAIN AND PAY FOR ALL RELEVANT LOCAL, STATE AND/OR FEDERAL PERMITS PRIOR TO THE START OF CONSTRUCTION, INCLUDING HERBICIDE TREATMENT PERMITS.
- THE CONTRACTOR SHALL COMPLY WITH ALL CONDITIONS CONTAINED IN RELEVANT PERMITS ISSUED FOR THIS PROJECT.
- THE CONTRACTOR SHALL OBTAIN ALL PERMITS FOR ANY TEMPORARY FACILITIES.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PERFORMANCE AND COMPLETION OF THE WORK AND SHALL RETAIN COMPETENT STAFF AT THE SITE AT ALL TIMES WHEN WORK IS IN PROGRESS.
- NO WETLANDS SHALL BE DISTURBED UNLESS INDICATED ON THE PLANS AND ALL APPROPRIATE PERMITS ARE IN PLACE.
- SHOULD HAZARDOUS/UNSUITABLE MATERIAL BE ENCOUNTERED, THE CONTRACTOR SHALL STOP WORK IMMEDIATELY AND NOTIFY THE CITY. THE CONTRACTOR WILL BE RESPONSIBLE TO NOTIFY THE APPROPRIATE REGULATORS AND ADDRESS REGULATORY REQUIREMENTS AND/OR GUIDANCE INCLUDING CALLING THE NYS SPILL HOTLINE AT 1-800-457-7362 IF NEEDED.
- PRECAUTIONS SHALL BE TAKEN BY THE CONTRACTOR TO PREVENT ANY IMPACTS TO AREAS OUTSIDE OF THE LIMITS OF PROPOSED WORK. THE CONTRACTOR SHALL SUBMIT TO THE CITY FOR APPROVAL ANY IMPACTS TO AREAS OUTSIDE THE LIMITS OF PROPOSED WORK AT LEAST TWO WEEKS IN ADVANCE OF THE PROPOSED IMPACT. IF THE CONTRACTOR'S ACTIVITY ADVERSELY AFFECTS ANY AREA OUTSIDE THE LIMIT OF PROPOSED WORK, THE CONTRACTOR SHALL IMMEDIATELY RESTORE THE AREA TO ITS PRE-CONSTRUCTION CONDITION.
- SURVEY DATA ARE BASED ON 1998 LIDAR DATA AND NOVEMBER 2017 TOPOGRAPHIC SURVEY BY WESTON AND SAMPSON. COORDINATES SHOWN ARE EXPRESSED IN U.S. SURVEY FEET AND REFERENCED TO THE NORTH AMERICAN DATUM OF 1983 (NAD83), NEW YORK STATE PLANE COORDINATE SYSTEM.
- ELEVATIONS ARE SHOWN IN NORTH AMERICAN VERTICAL DATUM 88.
- THE HUDSON RIVER PARK PORTION OF THE SURVEY IS IN ZONE AE, AN AREA SUBJECT TO INUNDATION BY THE 100-YEAR FLOOD WITH THE BASE FLOOD ELEVATION DETERMINED. REFER TO FLOOD INSURANCE RATE MAP NO. 36001C0202D, PANEL NO. 202 OF 434 WHICH BEARS AN EFFECTIVE DATE OF MARCH 16, 2015.
- THE CONTRACTOR SHALL BE ADVISED THAT THE PROJECT IS LOCATED IN AN AREA PRONE TO FLOODING AND SEVERE WEATHER IS KNOWN TO OCCUR AT THIS LOCATION. THE CONTRACTOR SHALL TAKE NECESSARY PRECAUTIONS TO PROTECT THE PROJECT WHILE UNDER CONSTRUCTION, WHICH MAY INCLUDE SEQUENCING THE PROJECT TO PROTECT TEMPORARY AND PERMANENT STRUCTURES. THIS INCLUDES, BUT IS NOT LIMITED TO, PROTECTION FROM STORMS, FLOODS, BOAT WAKES, CURRENT, WIND, AND RECREATIONAL USERS. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE PROTECTION OF THE PROJECT SITE, TEMPORARY FACILITIES, FALSEWORK, EQUIPMENT, PERSONNEL, WORK, MATERIALS, AND OTHER PROPERTIES, BOATS, THE PUBLIC, OR INDUSTRY. FALSEWORK SHALL BE REMOVED IF WEATHER IS ANTICIPATED TO THREATEN THE PROJECT, THE HUDSON RIVER, OR OTHER PROPERTY.
- NO ADDITIONAL PAYMENT WILL BE MADE FOR WORK ACTIVITIES IMPACTED DUE TO FLUCTUATIONS IN THE WATER SURFACE ELEVATIONS. NO ADDITIONAL PAYMENT WILL BE MADE FOR INCREASED POLLUTION PREVENTION, FALSEWORK, OR TEMPORARY FACILITIES REQUIRED DUE TO VARYING WATER SURFACE ELEVATIONS.
- THE CONTRACTOR SHALL PREVENT THE TRANSPORT OF INVASIVE PLANT MATERIAL TO AND FROM THE SITE. EQUIPMENT, VEHICLES, PERSONAL GEAR, AND IMPORTED MATERIALS SHALL BE CLEAN AND FREE OF PLANT MATERIAL. ALL EQUIPMENT SHALL BE CLEANED USING PRESSURE WASH PRIOR TO SITE MOBILIZATION. THE EQUIPMENT WILL BE EXAMINED AND PHOTOGRAPHED BY THE CITY UPON ARRIVAL AT THE SITE. IF EQUIPMENT IS NOT ACCEPTABLE, THE CONTRACTOR WILL BE REQUIRED TO CONDUCT ADDITIONAL CLEANING PRIOR TO INITIATING SITE ACTIVITIES.
- THE CONTRACTOR IS RESPONSIBLE TO DESIGN AND INSTALL ALL TEMPORARY FACILITIES SO THAT THEY REMAIN IN PLACE AND FUNCTIONING. ALL TEMPORARY FACILITIES SHALL BE LOCATED TO AVOID IMPACTS TO SUBMERGED AQUATIC VEGETATION (SAV), WETLANDS, AND OTHER SENSITIVE RESOURCES.
- ACCESS TO THE SITE WILL BE COORDINATED WITH THE CITY. THE USE OF VEHICLES ON THE SITE WILL FOLLOW GUIDELINES PROVIDED BY THE CITY.
- ONLY MATERIALS ACCEPTABLE TO THE CITY SHALL BE USED IN THE FILL MIXTURE OR THE SOIL CHOKING OF THE RIP RAP.
- IF EXCAVATED MATERIALS ARE TO BE HAULED, THE MATERIAL MUST BE COMPLETELY STABILIZED AND TIED DOWN TO PREVENT DISCHARGE INTO THE HUDSON RIVER. THE CONTRACTOR SHALL NOT DISCHARGE EXCAVATED MATERIAL WITHIN THE HUDSON RIVER.
- TEMPORARY STOCKPILING OF EXCAVATED MATERIALS ON APPROVED DESIGNATED AREA IS ACCEPTABLE. STOCKPILES SHALL BE PLACED, GRADED, AND SHAPED FOR PROPER DRAINAGE. COVER TO PREVENT WIND-BLOWN DUST. PROVIDE APPROVED SILT SOCKS OR OTHER CONTAINMENT APPROVED BY THE CITY IN ADVANCE OF PROJECT ACTIVITIES TO PREVENT WATERBORNE SEDIMENTS. TEMPORARY STOCKPILING SITES MUST HAVE AN APPROVED EROSION AND SEDIMENT CONTROL PLAN, IF REQUIRED BY FEDERAL, STATE, OR LOCAL REGULATION.

SOIL AND EROSION CONTROL NOTES

- ALL MATERIALS SHALL BE PROVIDED AND WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE NEW YORK STATE STANDARDS FOR EROSION AND SEDIMENT CONTROL.
- THE CONTRACTOR SHALL INSTALL ALL REQUIRED POLLUTION CONTROL DEVICES PRIOR TO CONSTRUCTION AND SHALL BE RESPONSIBLE FOR THEIR MAINTENANCE, REPOSITIONING AND REMOVAL UPON COMPLETION OF WORK.
- FILTER SOCK SHALL BE INSTALLED AS PER MANUFACTURER'S INSTRUCTIONS. INSTALLATION LOCATIONS SHALL BE APPROVED BY THE CITY. AT TIME OF REMOVAL, THE STAKES AND ANY OTHER ANCILLARY MATERIALS ASSOCIATED WITH THE FILTER SOCK SHALL BE REMOVED FROM THE SITE.
- ALL EXPOSED AREAS, INCLUDING STOCKPILES, THAT WILL BE LEFT EXPOSED MORE THAN FOURTEEN (14) DAYS, AND NOT SUBJECT TO CONSTRUCTION TRAFFIC, WILL IMMEDIATELY RECEIVE TEMPORARY SEEDING, MULCH, WATER AND ANCHOR AS NECESSARY TO ESTABLISH GRASS AND PREVENT LOSS TO WIND. IF THE SEASON PREVENTS THE ESTABLISHMENT OF A TEMPORARY COVER, THE DISTURBED AREAS WILL BE MULCHED WITH SMALL GRAIN STRAW AT A RATE OF TWO (2) TONS PER ACRE, IN ACCORDANCE WITH STATE STANDARDS.
- PERMANENT VEGETATION TO BE SEEDED ON ALL EXPOSED AREAS IMMEDIATELY AFTER FINAL GRADING. STRAW MULCH TO BE USED FOR PROTECTION UNTIL SEEDING IS ESTABLISHED.
- SHOULD CONTROL OF DUST AT THE SITE BE NECESSARY, THE SITE WILL BE SPRINKLED UNTIL THE SURFACE IS WET, TEMPORARY VEGETATIVE COVER SHALL BE ESTABLISHED, OR MULCH SHALL BE APPLIED IN ACCORDANCE WITH STATE STANDARDS FOR EROSION CONTROL.
- ALL SOIL WASHED, DROPPED, SPILLED, OR TRACKED OUTSIDE THE LIMITS OF DISTURBANCE OR ONTO PUBLIC RIGHTS-OF-WAY SHALL BE REMOVED IMMEDIATELY.
- STOCKPILE AND STAGING LOCATIONS SHALL BE APPROVED BY THE CITY.
- THE CONTRACTOR SHALL INSPECT DISTURBED AREAS OF THE CONSTRUCTION SITE, AREAS USED FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION THAT HAVE NOT BEEN FINALLY STABILIZED, STRUCTURAL PRACTICES, OTHER CONTROLS, AND AREAS WHERE VEHICLES EXIT THE SITE AT LEAST ONCE EVERY SEVEN (7) CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF ANY STORM THAT PRODUCES 0.5 INCHES OR MORE OF RAINFALL AT THE SITE. WHERE SITES HAVE BEEN FINALLY STABILIZED, SUCH INSPECTION SHALL BE CONDUCTED AT LEAST ONCE A MONTH.

CLEARING AND GRUBBING

- THE CONTRACTOR AT ALL TIMES SHALL KEEP THE PREMISES FREE FROM ACCUMULATION OF WASTE MATERIALS OR RUBBISH CAUSED BY ITS OPERATION. GOOD HOUSEKEEPING PRACTICES SHALL BE MAINTAINED ON A CONTINUOUS BASIS FROM WORK SITE TO WORK SITE. DISPOSAL OF ANY WASTE MATERIALS ON THE CONSTRUCTION SITE IS PROHIBITED.
- THE CONTRACTOR SHALL NOT DISTURB SOIL (CLEAR, GRUB, GRADE, EXCAVATE, OR DEWATER) IN AREAS OUTSIDE OF THOSE SPECIFIED ON THE PLAN UNLESS APPROVED BY THE CITY.
- THE CONTRACTOR WILL PROVIDE EMPLOYEE FACILITIES AND WASTE DISPOSAL.
- ALL COMBUSTIBLE WASTE MATERIALS SHALL BE PLACED IN COVERED METAL CONTAINERS AND PROMPTLY DISPOSED OF IN AN APPROVED MANNER AT AN APPROVED WASTE DISPOSAL FACILITY.
- STORAGE AND/OR USE OF CHEMICALS, FUELS, OILS, GREASES, BITUMINOUS MATERIALS, SOLIDS, WASTE WASHINGS, AND CEMENT SHALL BE HANDLED AS TO PREVENT LEACHING OR SURFACE RUN-OFF INTO PUBLIC WATERS OR DRAINS. ALL APPROVED STORAGE AREAS FOR THESE MATERIALS MUST BE DIKED.
- THE CONTRACTOR IS RESPONSIBLE FOR REMOVAL AND PROPER DISPOSAL OF ALL WASTE MATERIAL AND/OR DEBRIS (INCLUDING BUT NOT LIMITED TO INVASIVE-SPECIES PLANT DETRITUS). WASTE MATERIAL AND DEBRIS SHALL NOT BE RELEASED INTO THE RIVER OR BURNED. ALL WASTE MATERIAL AND DEBRIS SHALL BE DISPOSED OF IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL LAWS AND OTHER APPLICABLE CODES, AT A LOCATION APPROVED BY THE CITY.
- THE CONTRACTOR'S EQUIPMENT MUST BE FREE OF HYDRAULIC LEAKS. THE EQUIPMENT WILL BE MAINTAINED IN AN OPERATIONAL CONDITION AT ALL TIMES AND MAY BE INSPECTED BY THE CITY AT ANY TIME FOR HYDRAULIC LEAKS AND GENERAL CONDITION.

WATER POLLUTION CONTROL NOTES

- CARE SHALL BE TAKEN TO PROTECT THE WATER.
- ALL WATER RESOURCES (I.E. GROUND AND SURFACE WATERS), INCLUDING ALL DRAINS, SHALL BE PROTECTED FROM LEACHING AND/OR RUN-OFF OF CHEMICAL POLLUTANTS, SOLID WASTES, AND CONSTRUCTION SITE DEBRIS.
- EQUIPMENT, TOOLS AND TRUCKS USED IN THIS PROJECT SHALL BE CLEANED IN SUCH A MANNER AS TO PREVENT WASH WATER FROM ENTERING ANY WATER BODY.
- SPILLAGE OF HAZARDOUS SUBSTANCES INTO THE WATERWAY IS PROHIBITED BY THE CLEAN WATER ACT OF 1977. MEASURES INCLUDING PROPER MAINTENANCE OF CONSTRUCTION EQUIPMENT, DESIGNATING FUEL/HAZARDOUS SUBSTANCES HANDLING AREAS TO ALLOW SPILLS TO BE CONTAINED BEFORE REACHING THE WATERWAY, INSTRUCTING PERSONNEL NOT TO DISPOSE OF OIL AND OTHER SUCH MATERIALS INTO DRAINS OR INTO THE WATERWAY DIRECTLY, AND OTHER NECESSARY PROCEDURES SHALL BE IMPLEMENTED PRIOR TO ANY CONSTRUCTION ACTIVITIES.
- ABSORBENT MATERIALS SHALL BE RETAINED ONSITE IN THE EVENT THAT A SPILL OCCURS.

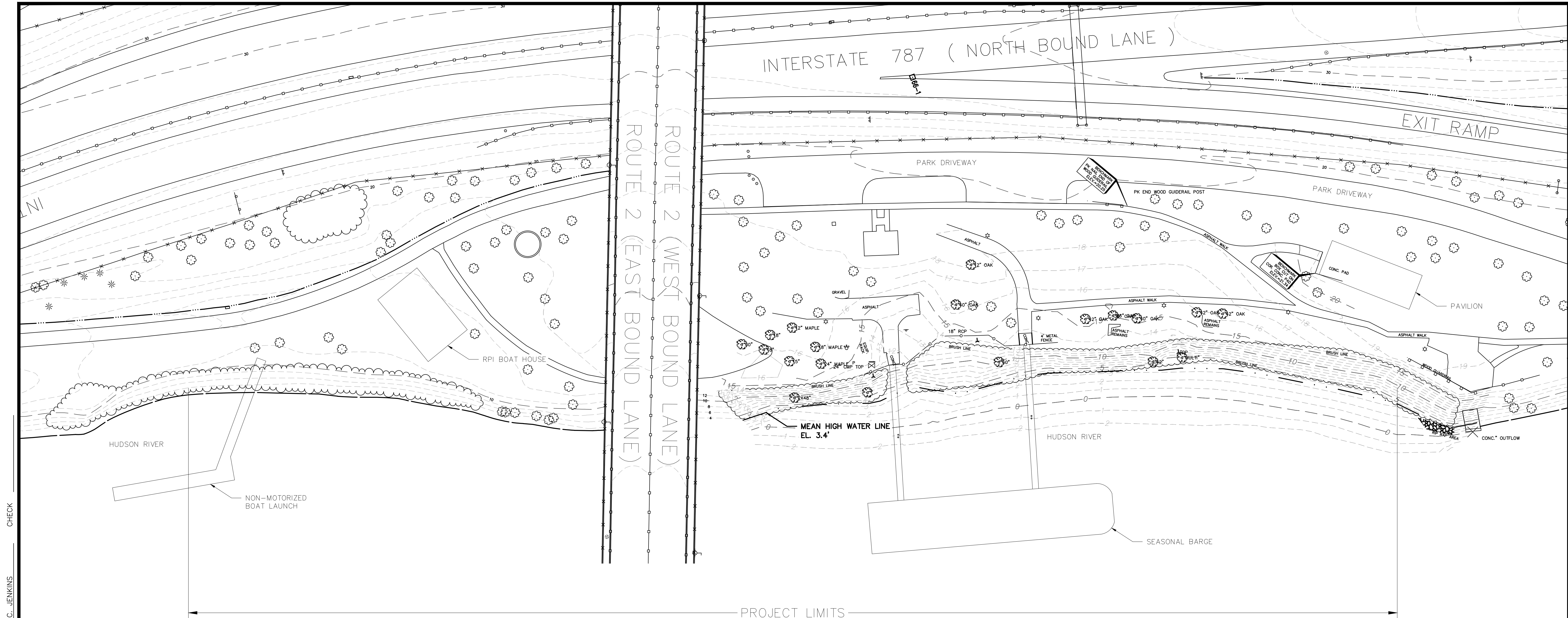
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HUDSON SHORES PARK SUSTAINABLE SHORELINE DESIGN			
		GENERAL NOTES	
PREPARED BY: CHJ/JSW		DWG.NO: G002	
SCALE: AS NOTED		CONTRACT NO.	

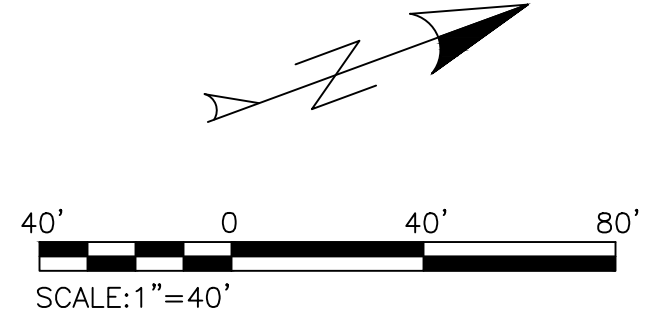


GENERAL SURVEY NOTES:

1. UNDERGROUND UTILITY LOCATIONS SHOWN HEREON ARE BASED ON UTILITY EVIDENCE VISIBLE AT GROUND SURFACE AND RECORD DRAWINGS AND ARE SUBJECT TO FIELD VERIFICATION BY EXCAVATION. UTILITIES SHOWN DO NOT PURPORT TO CONSTITUTE OR REPRESENT ALL UTILITIES LOCATED UPON OR ADJACENT TO THE SURVEYED PREMISES.
2. SURVEY PERFORMED BY WESTON & SAMPSON PE,LS,LA,PC IN NOVEMBER 2017.
3. CONTOURS AND ELEVATIONS SHOWN ON NAVD88 VERTICAL DATUM BASED ON GPS OBSERVATIONS.
4. NORTH ORIENTATION IS TRUE NORTH BASED ON GPS OBSERVATIONS TAKEN AT THE TIME OF THE FIELD SURVEY. MAPPING PREPARED ON NAD83 STATE PLANE COORDINATE SYSTEM-NEW YORK EAST ZONE.
5. MAPPING OUTSIDE OF SURVEYED AREA IS PER AERIAL MAPPING BY OTHERS

SURVEY LEGEND

	EDGE OF WOODS		CHAIN LINKED FENCE
	DECIDUOUS TREE		OVERHEAD UTILITY WIRES
	CONIFEROUS TREE		WATER LINE & WATER VALVE
	SHRUB/BUSH		CURBING
	SIGN		UNDERGROUND ELECTRIC
	UTILITY POLE		STORM MANHOLE (MHST)
	LIGHT POLE		CATCHBASIN (CB)
	HYDRANT		METAL POST/BOLLARD (BOL)
	WATER SHUTOFF		TOP OF FRAME
	SANITARY MANHOLE (MHSA)		ELECTRIC MANHOLE (MHE)
	GUY WIRE		MISC. MANHOLE (MH)
	EDGE OF WATER		TELEPHONE MANHOLE (MHT)
	METAL FENCE		MAJOR CONTOUR LINE
			MINOR CONTOUR LINE



JOB MANAGER M. STOTTLER DESIGN E. REDDING/J. WESOLOWSKI DRAFTING C. JENKINS CHECK

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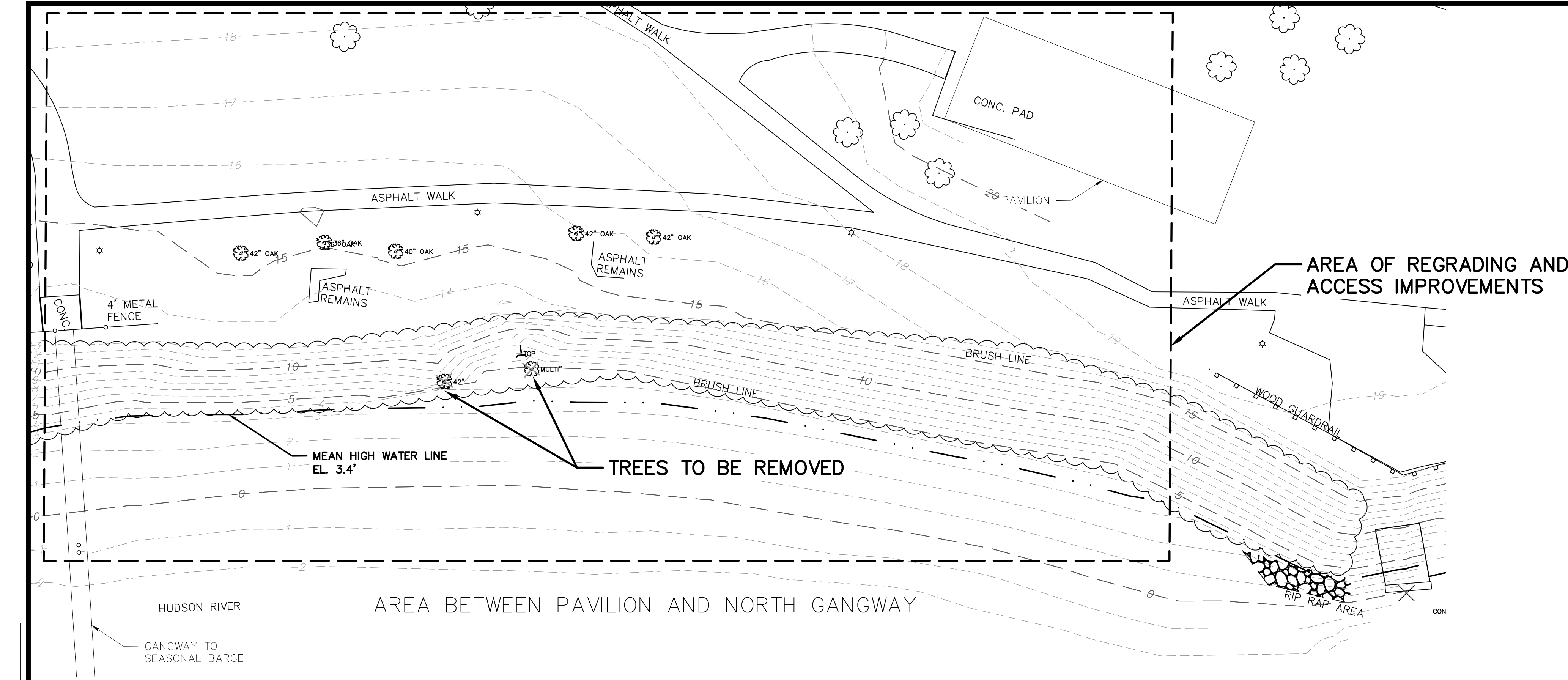
NEIWPCC
 New England Interstate Water Pollution Control Commission

EXISTING CONDITIONS

PREPARED BY: **CHJ/JSW** DWG. NO: **V101**

SCALE: AS NOTED CONTRACT NO.

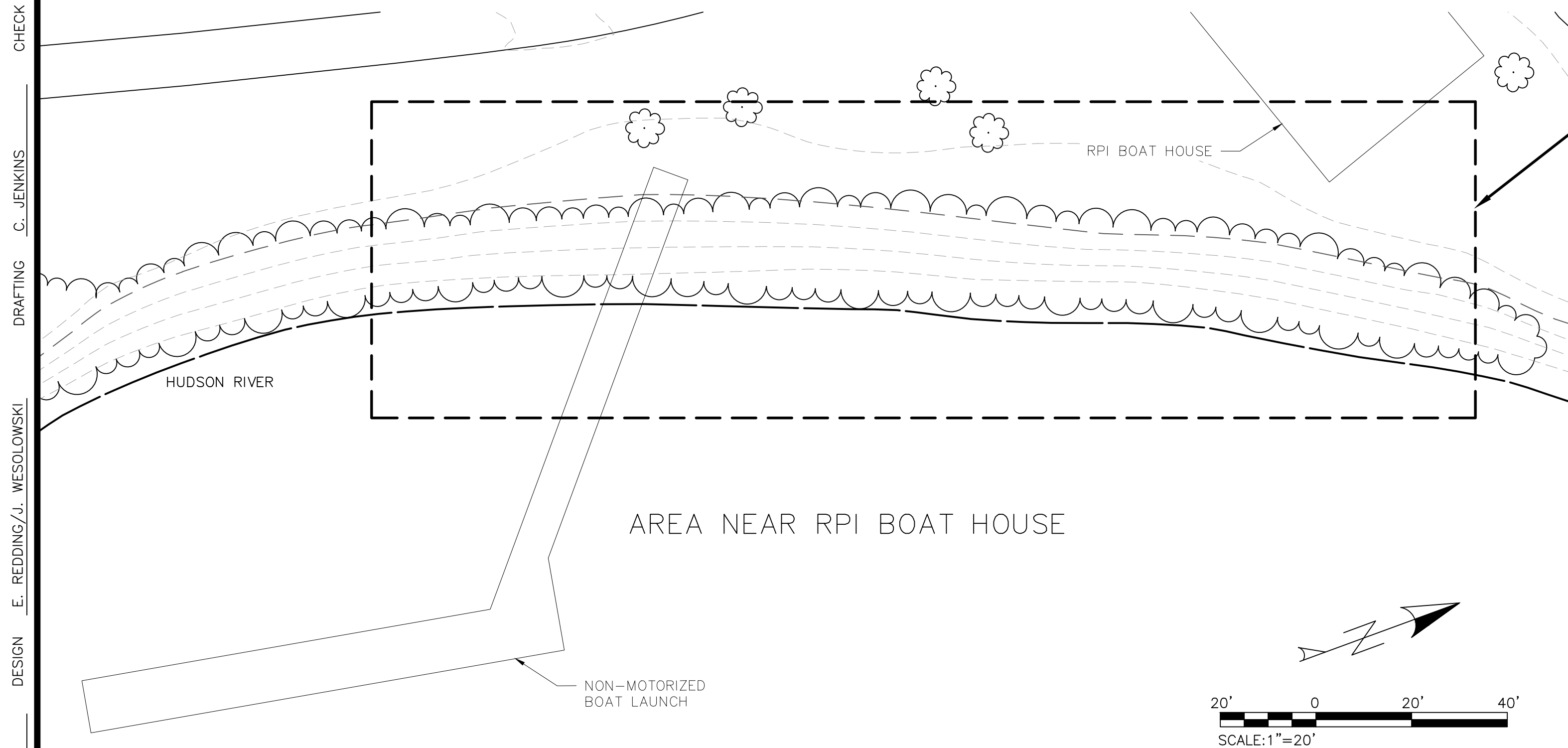
NEW YORK STATE OF OPPORTUNITY Department of Environmental Conservation Hudson River Estuary Program



AREA OF REGRADING AND ACCESS IMPROVEMENTS

TRES TO BE REMOVED

AREA BETWEEN PAVILION AND NORTH GANGWAY



ACCESS IMPROVEMENTS AND REMOVAL OF INVASIVE SPECIES WITHIN RIPRAP

AREA NEAR RPI BOAT HOUSE

SURVEY LEGEND

- EDGE OF WOODS
- DECIDUOUS TREE
- CONIFEROUS TREE
- SHRUB/BUSH
- SIGN
- UTILITY POLE
- LIGHT POLE
- HYDRANT
- WATER SHUTOFF
- SANITARY MANHOLE (MHSA)
- GUY WIRE
- EDGE OF WATER
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- TELEPHONE MANHOLE (MHT)
- MAJOR CONTOUR LINE
- MINOR CONTOUR LINE



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NEIWPCC
New England Interstate Water
Pollution Control Commission

DEMOLITION PLAN

PREPARED BY:
CHJ/JSW

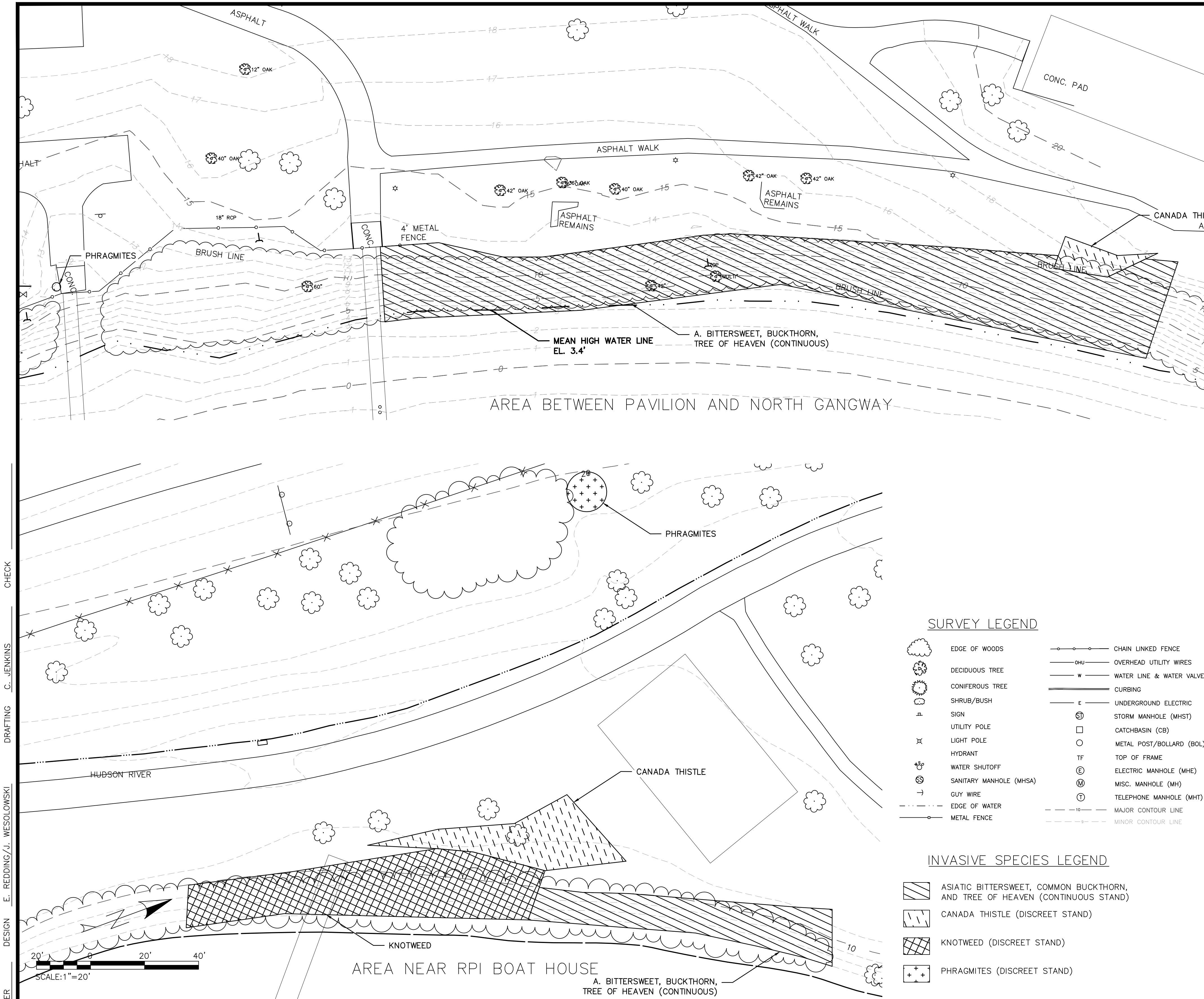
SCALE: AS NOTED

DWG. NO.:
C001

CONTRACT NO.

Department of
Environmental
Conservation

Hudson River
Estuary Program



- INVASIVE AND NON-NATIVE PLANT TREATMENT PROCEDURE**
- PRIOR TO TREATMENT/ INVASIVE REMOVALS, THE CONTRACTOR SHALL SUBMIT FOR APPROVAL BY THE OWNER'S REPRESENTATIVE AN INVASIVE SPECIES TREATMENT PLAN. AT A MINIMUM, THE TREATMENT PLAN SHALL INCLUDE THE FOLLOWING:
 - MEANS AND METHODS OF APPLICATION FOR TARGETED SPECIES
 - SCHEDULE OF ACTIVITIES
 - COPIES OF APPLICATOR CERTIFICATIONS
 - MATERIAL SAFETY DATA SHEETS FOR ALL CHEMICALS TO BE USED
 - SAMPLE TREATMENT REPORTING FORMS
 - INVASIVE SPECIES KNOWN TO BE ON THE SITE THAT ARE TO BE TREATED ARE SHOWN IN THE TABLE BELOW. (PER 6 NYCRR PART 575 - PROHIBITED AND REGULATED INVASIVE SPECIES DATED 9.10.14) THERE MAY BE ADDITIONAL INVASIVE AND NON-NATIVE SPECIES ON THE SITE WHICH MAY BE TREATED AT A LATER DATE.

COMMON NAME	SPECIES
ASIATIC BITTERSWEET	<i>Celastrus orbiculatus</i>
COMMON BUCKTHORN	<i>Alnus glutinosa</i>
CANADA THISTLE	<i>Cirsium arvense</i>
GIANT KNOTWEED	<i>Reynoutria sachalinensis</i>
PHRAGMITES	<i>Phragmites australis</i>
TREE OF HEAVEN	<i>Ailanthus altissima</i>

- TREATMENT APPLICATIONS, CONDUCTED BY THE CONTRACTOR, SHALL BE CONDUCTED BY A MINIMUM OF TWO PERSON TREATMENT CREW. ALL APPLICATORS SHALL BE NEW YORK STATE CERTIFIED COMMERCIAL PESTICIDE APPLICATORS (CATEGORY 5A AQUATIC VEGETATION CONTROL) AND/OR A CERTIFIED COMMERCIAL PESTICIDE TECHNICIAN.
- CONTRACTORS SHALL UTILIZE SPECIFIC TREATMENT METHODS FOR EACH TARGET SPECIES. VARIOUS METHODS MAY NEED TO BE EMPLOYED FOR EACH SPECIES AS WELL (E.G., LOW VOLUME FOLIAR HERBICIDE APPLICATION FOR LARGER STANDS AND THE CUT AND TREAT METHOD FOR SMALLER STANDS). THE SEASONAL TIMING OF INVASIVE TREATMENT MAY VARY BY SPECIES AND THE DENSITY OF TREATMENT AREAS AS WELL. TREATMENTS TO BE APPLIED INCLUDE, BUT ARE NOT LIMITED TO THE FOLLOWING:
 - LOW VOLUME FOLIAR TREATMENT** - AN APPROPRIATE LOW VOLUME HERBICIDE MIXTURE APPLIED TO TARGETED PLANTS DURING FOLIAR SEASON. IT IS ASSUMED THAT LOW-VOLUME FOLIAR TREATMENTS WILL BE PRIMARILY APPLIED TO HERBACEOUS SPECIES AND TO TREE AND SHRUB SPECIES LESS THAN 10 FEET TALL. LOW VOLUME FOLIAR APPLICATIONS SHALL BE CAREFULLY SPECIED TO TARGET SPECIES ONLY.
 - CUT AND TREAT** - CUTTING THE STEM OF THE PLANT, REMOVING THE CUTTINGS AND TREATING THE CUT STEM WITH AN HERBICIDE. THIS METHOD MAY BE APPROPRIATE FOR SMALL POPULATIONS THAT ARE VERY CLOSE TO DESIRABLE, NON-TARGET SPECIES. CUT AND TREAT SHALL PRIMARILY BE USED TO KILL WOODY SHRUBS AND TREES. THIS TREATMENT SHALL BE USED TO SELECTIVELY REMOVE BLACK ALDER AND TREE OF HEAVEN WHERE DIRECTED, AND MAY ALSO BE USED ON HONEYSUCKLE AND BUCKTHORN SHRUBS.
 - STEM INJECTION** - HERBICIDE IS INJECTED DIRECTLY INTO THE STEM OF AN HERBACEOUS PLANT. THIS METHOD MAY BE APPROPRIATE FOR TREATING THE KNOTWEED ON THE SITE.
 - OTHER METHODS** - CONTRACTORS ARE ENCOURAGED TO PROVIDE RECOMMENDATIONS FOR OTHER TREATMENT METHODS E.G., HAND PULLING, HAND WICKING.

- ALL CUT HERBACEOUS OR SUCKERING INVASIVE PLANT MATERIALS, SEEDS, BERRIES, AND RHIZOMES SHALL BE DISPOSED OF PROPERLY AT AN APPROVED FACILITY OFF-SITE. PLANT MATERIAL SHALL NOT BE BURNED. CARE SHALL BE TAKEN THAT NO MATERIAL IS RELEASED DURING TRANSPORTATION. CONTRACTOR SHALL PROVIDE HAULING/DISPOSAL TICKETS FROM THE APPROVED FACILITY FOR ALL MATERIALS DISPOSED OF OFFSITE.
- THE CONTRACTOR MUST INFORM CITY'S AUTHORIZED REPRESENTATIVE OF ITS INTENDED SCHEDULE AT ALL TIMES. WHILE IT IS RECOGNIZED THAT RAIN, WIND, AND OTHER VARIABLES MAY CAUSE SCHEDULES TO BE ADJUSTED, THE CONTRACTOR MUST INFORM CITY'S AUTHORIZED REPRESENTATIVE OF ITS INTENDED SCHEDULE ONE WEEK IN ADVANCE.
- THE CONTRACTOR SHALL SECURE THE TREATMENT AREA AND POST PROPER NOTIFICATIONS INDICATING TREATMENTS BEING CONDUCTED, AS DIRECTED BY THE CITY.
- THE CERTIFIED PESTICIDE APPLICATOR SHALL COMPLETE A DAILY PESTICIDE APPLICATION RECORD TO TRACK HERBICIDE APPLICATIONS UNDER THIS SCOPE. TREATMENT RECORDS SHALL CONTAIN, AT A MINIMUM, DATE, APPLICATOR, PRODUCT USED, DOSAGE RATE, AREA TREATED, METHOD OF APPLICATION, TARGET ORGANISM, AND PLACE OF APPLICATION. IN ADDITION TO THE DAILY TREATMENT RECORDS, THE CONTRACTOR MUST DOCUMENT ALL EQUIPMENT MAINTENANCE EVENTS THAT OCCUR DURING TREATMENT ACTIVITIES. A COPY OF THESE TREATMENT AND MAINTENANCE RECORDS SHALL BE SUBMITTED TO CITY IN BOTH HARDCOPY AND ELECTRONIC FORMAT (PDF FORMAT) WITHIN 3 WEEKS OF TREATMENT.
- MATERIAL SAFETY DATA SHEETS FOR ALL CHEMICALS ON SITE SHALL BE POSTED ON-SITE AND REMAIN ACCESSIBLE AT ALL TIMES DURING TREATMENT.
- THE CONTRACTOR IS RESPONSIBLE FOR ADHERING TO ALL FEDERAL, STATE, AND LOCAL REGULATIONS PERTAINING TO THE PURCHASE, TRANSPORT, APPLICATION, AND DISPOSAL OF HERBICIDES. CONTRACTOR IS RESPONSIBLE FOR SECURING ANY PERMITS REQUIRED FOR THE PURCHASE, TRANSPORT, APPLICATION AND DISPOSAL OF HERBICIDES.
- THE PROJECT INVOLVES APPLICATION OF HERBICIDES IN AND ADJACENT TO A STATE-REGULATED WATERWAY AND AS SUCH, THE CONTRACTOR SHALL PROVIDE AND UTILIZE A GLYPHOSATE-BASED HERBICIDE THAT IS AUTHORIZED FOR USE IN AQUATIC APPLICATIONS AND IN NEW YORK STATE. THE CONTRACTOR SHALL FOLLOW THE MANUFACTURER'S SPECIFICATIONS FOR MIXING, DILUTION, AND USE, INCLUDING SPECIFIC INSTRUCTIONS FOR TARGET VEGETATION. PERSONAL PROTECTIVE SAFETY EQUIPMENT AS REQUIRED PER THE HERBICIDE MANUFACTURER'S LABEL SHALL BE WORN FOR ALL HERBICIDE HANDLING AND APPLICATIONS.
- THE CONTRACTOR SHALL PROTECT THE ENVIRONMENT. THE CONTRACTOR IS RESPONSIBLE TO ASSURE THAT TREATMENT CREWS ABIDE BY ALL APPLICABLE ENVIRONMENTAL REGULATIONS, INCLUDING BUT NOT LIMITED TO FEDERAL, STATE AND LOCAL RULES GOVERNING POLLUTION AND THE PROTECTION OF PLANTS AND ANIMALS.

SURVEY LEGEND

	EDGE OF WOODS		CHAIN LINKED FENCE
	DECIDUOUS TREE		OVERHEAD UTILITY WIRES
	CONIFEROUS TREE		WATER LINE & WATER VALVE
	SHRUB/BUSH		CURBING
	SIGN		UNDERGROUND ELECTRIC
	UTILITY POLE		STORM MANHOLE (MHST)
	LIGHT POLE		CATCHBASIN (CB)
	HYDRANT		METAL POST/BOLLARD (BOL)
	WATER SHUTOFF		TOP OF FRAME
	SANITARY MANHOLE (MHSA)		ELECTRIC MANHOLE (MHE)
	GUY WIRE		MISC. MANHOLE (MH)
	EDGE OF WATER		TELEPHONE MANHOLE (MHT)
	METAL FENCE		MAJOR CONTOUR LINE
			MINOR CONTOUR LINE

INVASIVE SPECIES LEGEND

	ASIATIC BITTERSWEET, COMMON BUCKTHORN, AND TREE OF HEAVEN (CONTINUOUS STAND)
	CANADA THISTLE (DISCREET STAND)
	KNOTWEED (DISCREET STAND)
	PHRAGMITES (DISCREET STAND)

JOB MANAGER M. STOTTLE
 DESIGN E. REDDING/J. WESOLOWSKI
 DRAFTING C. JENKINS
 CHECK

REV NO	DATE	DESCRIPTION	DWN	PROJ
			CHK	APP.
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HUDSON SHORES PARK SUSTAINABLE SHORELINE DESIGN

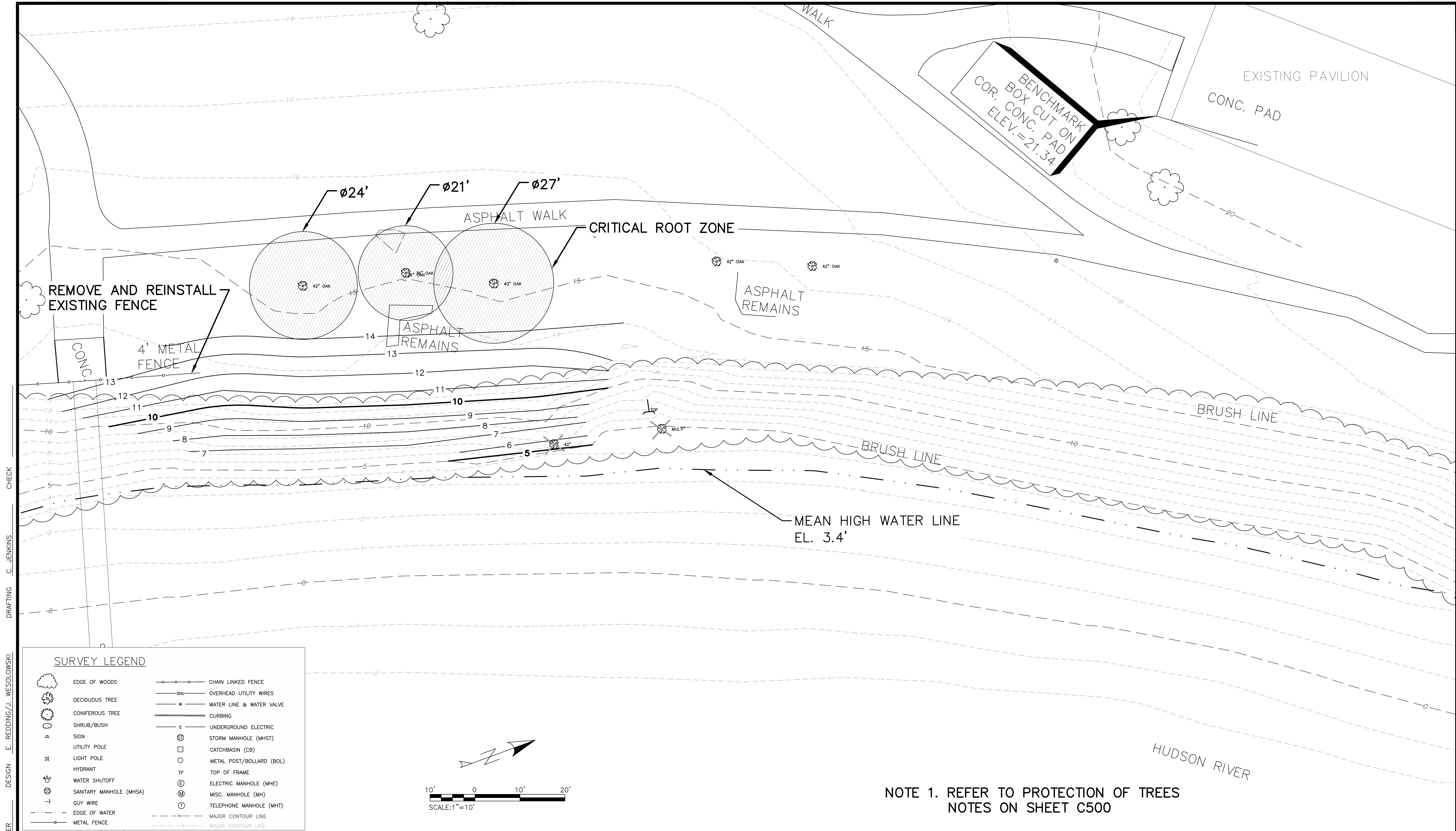
NEIWPCC
 New England Interstate Water Pollution Control Commission

INVASIVE SPECIES REMOVAL

PREPARED BY: **CHJ/JSW** DWG. NO: **C101**

SCALE: AS NOTED CONTRACT NO.

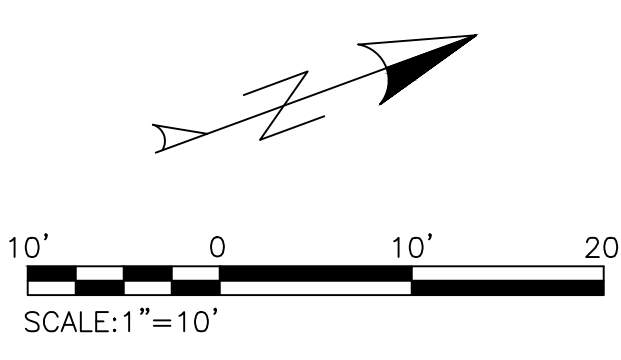
NEW YORK STATE OF OPPORTUNITY Department of Conservation Hudson River Estuary Program



JOB MANAGER M. STOTTLER
 DESIGN E. REDDING/J. WESOLOWSKI
 DRAFTING C. JENKINS
 CHECK

SURVEY LEGEND

EDGE OF WOODS	CHAIN LINKED FENCE
DECIDUOUS TREE	OVERHEAD UTILITY WIRES
CONIFEROUS TREE	WATER LINE & WATER VALVE
SHRUB/BUSH	CURBING
SIGN	UNDERGROUND ELECTRIC
UTILITY POLE	STORM MANHOLE (MHST)
LIGHT POLE	CATCHBASIN (CB)
HYDRANT	METAL POST/BOLLARD (BOL)
WATER SHUTOFF	TOP OF FRAME
SANITARY MANHOLE (MHSA)	ELECTRIC MANHOLE (MHE)
GUY WIRE	MISC. MANHOLE (MH)
EDGE OF WATER	TELEPHONE MANHOLE (MHT)
METAL FENCE	MAJOR CONTOUR LINE
	MINOR CONTOUR LINE



NOTE 1. REFER TO PROTECTION OF TREES NOTES ON SHEET C500

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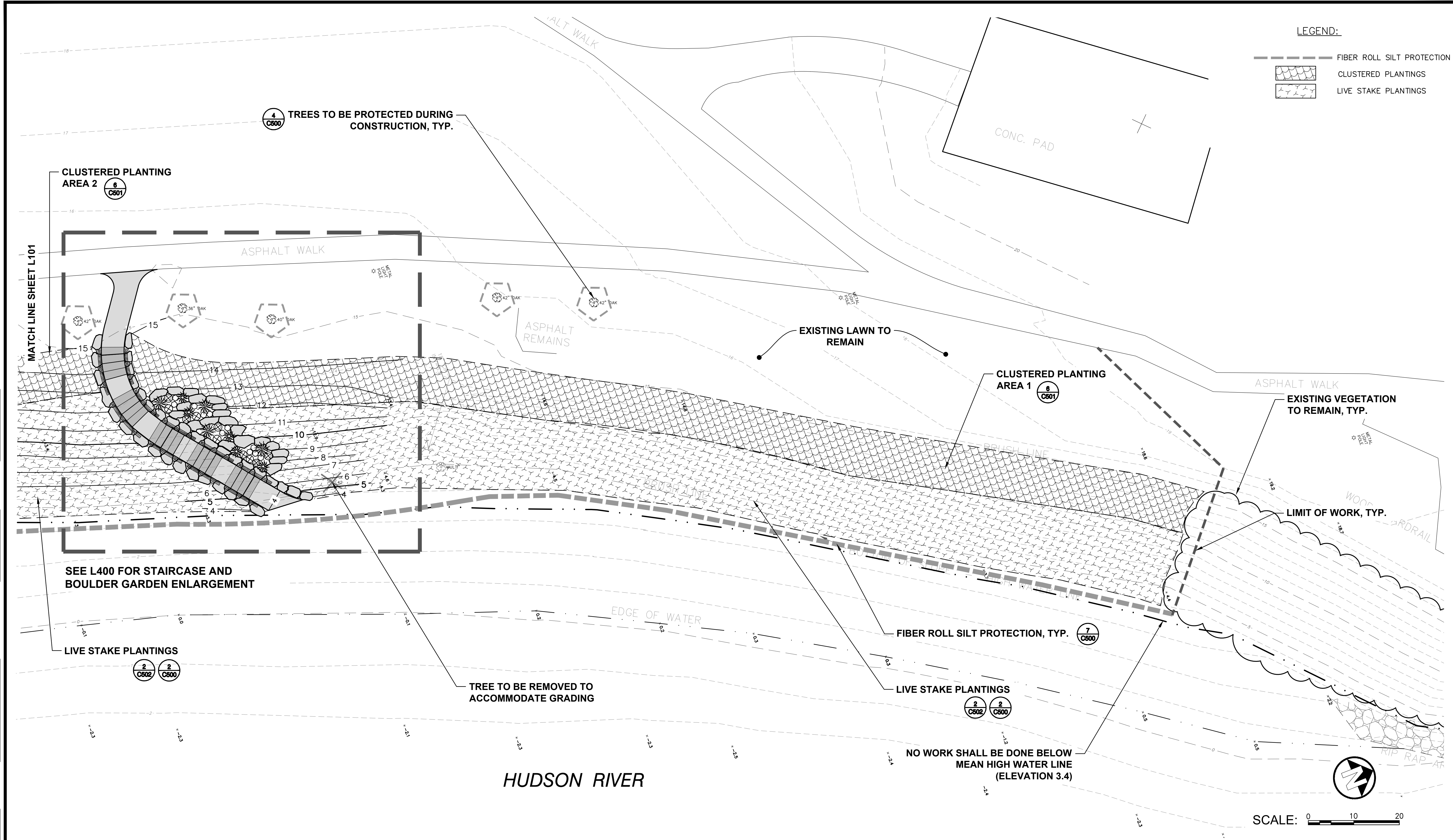
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PROPOSED SLOPE REGRADING

	PREPARED BY: CHJ/JSW
	DWG. NO.: C201
	SCALE: AS NOTED
	CONTRACT NO.

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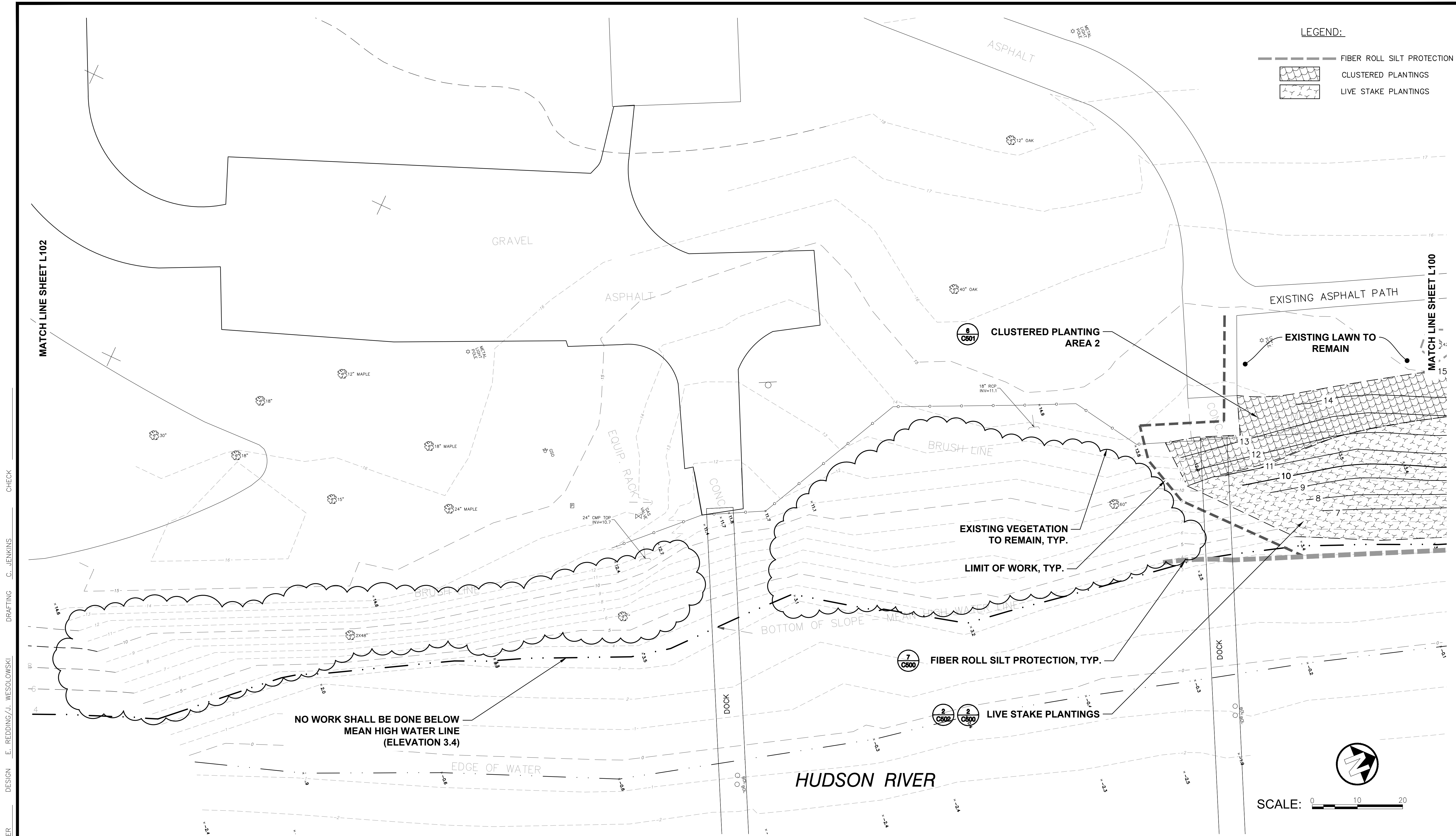
LANDSCAPE PLAN 1

PREPARED BY: **RAM/DPB** DWG. NO: **L100**



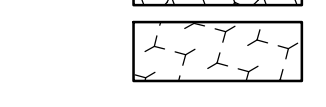
SCALE: AS NOTED CONTRACT NO.

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New England Interstate Water Pollution Control Commission

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation | Hudson River Estuary Program



LEGEND:

-  FIBER ROLL SILT PROTECTION
-  CLUSTERED PLANTINGS
-  LIVE STAKE PLANTINGS

MATCH LINE SHEET L102

MATCH LINE SHEET L100

**NO WORK SHALL BE DONE BELOW
MEAN HIGH WATER LINE
(ELEVATION 3.4)**

JOB MANAGER M. STOTTLER DESIGN E. REDDING/J. WESOLOWSKI DRAFTING C. JENKINS CHECK

REV NO	DATE	DESCRIPTION	DWN	PROJ
			CHK	APP.
REVISIONS				





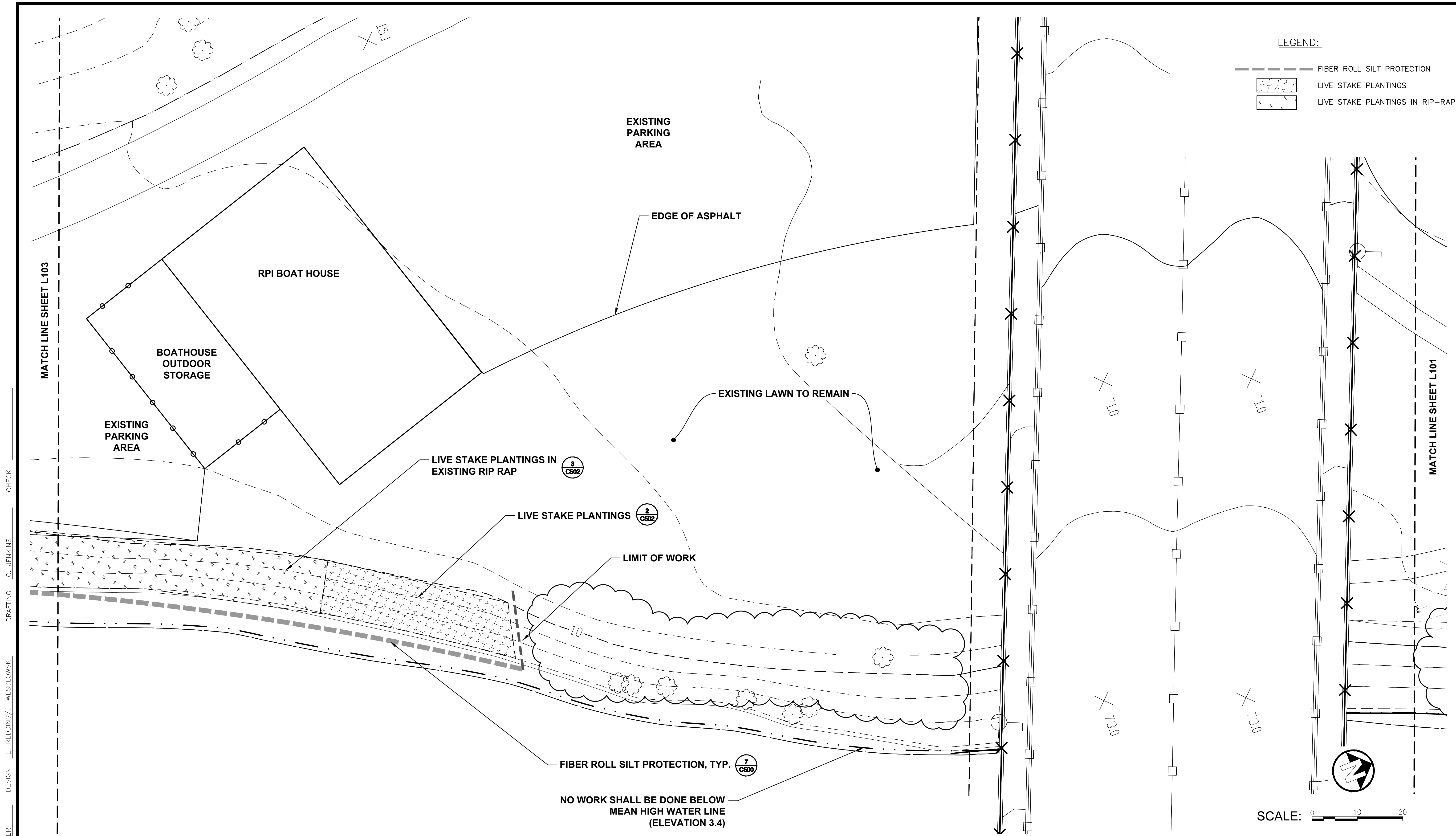
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HUDSON SHORES PARK SUSTAINABLE SHORELINE DESIGN

LANDSCAPE PLAN 2

 New England Interstate Water Pollution Control Commission	PREPARED BY: RAM/DPB
 Department of Environmental Conservation	DWG. NO: L101
 Hudson River Estuary Program	SCALE: AS NOTED
CONTRACT NO.	



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HUDSON SHORES PARK SUSTAINABLE SHORELINE DESIGN

LANDSCAPE PLAN 3

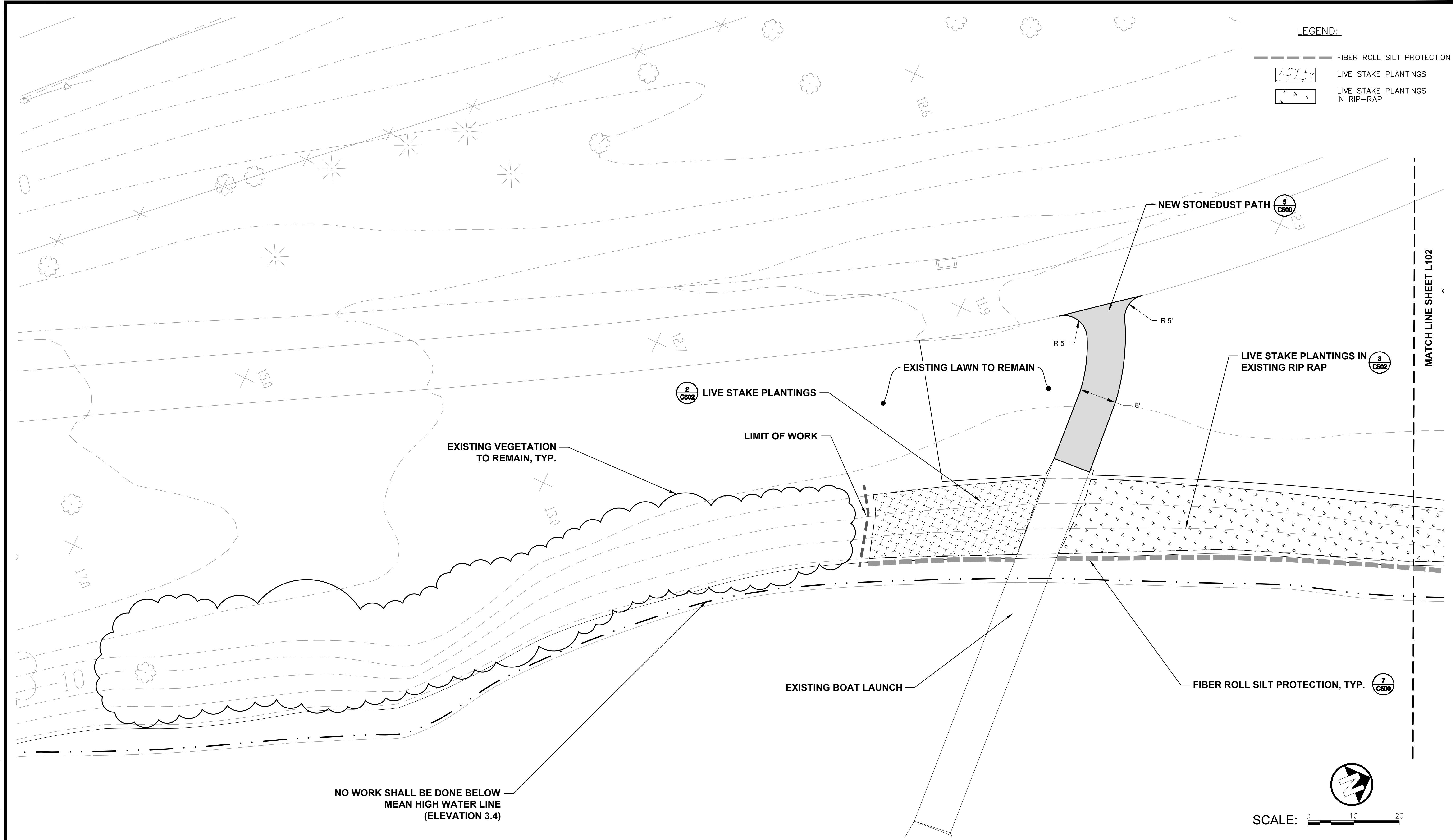
PREPARED BY: **RAM/DPB** DWG. NO: **L102**

SCALE: AS NOTED CONTRACT NO.

NEIWPCC
New England Interstate Water Pollution Control Commission

NEW YORK STATE OF OPPORTUNITY Department of Environmental Conservation Hudson River Estuary Program

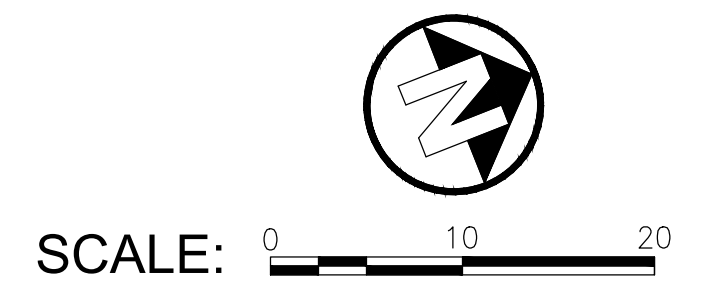
JOB MANAGER M. STOTTLER DESIGN E. REDDING/J. WESOLOWSKI DRAFTING C. JENKINS CHECK



LEGEND:

- FIBER ROLL SILT PROTECTION
- LIVE STAKE PLANTINGS
- LIVE STAKE PLANTINGS IN RIP-RAP

**NO WORK SHALL BE DONE BELOW
MEAN HIGH WATER LINE
(ELEVATION 3.4)**



REV NO	DATE	DESCRIPTION	DWN CHK	PROJ APP.
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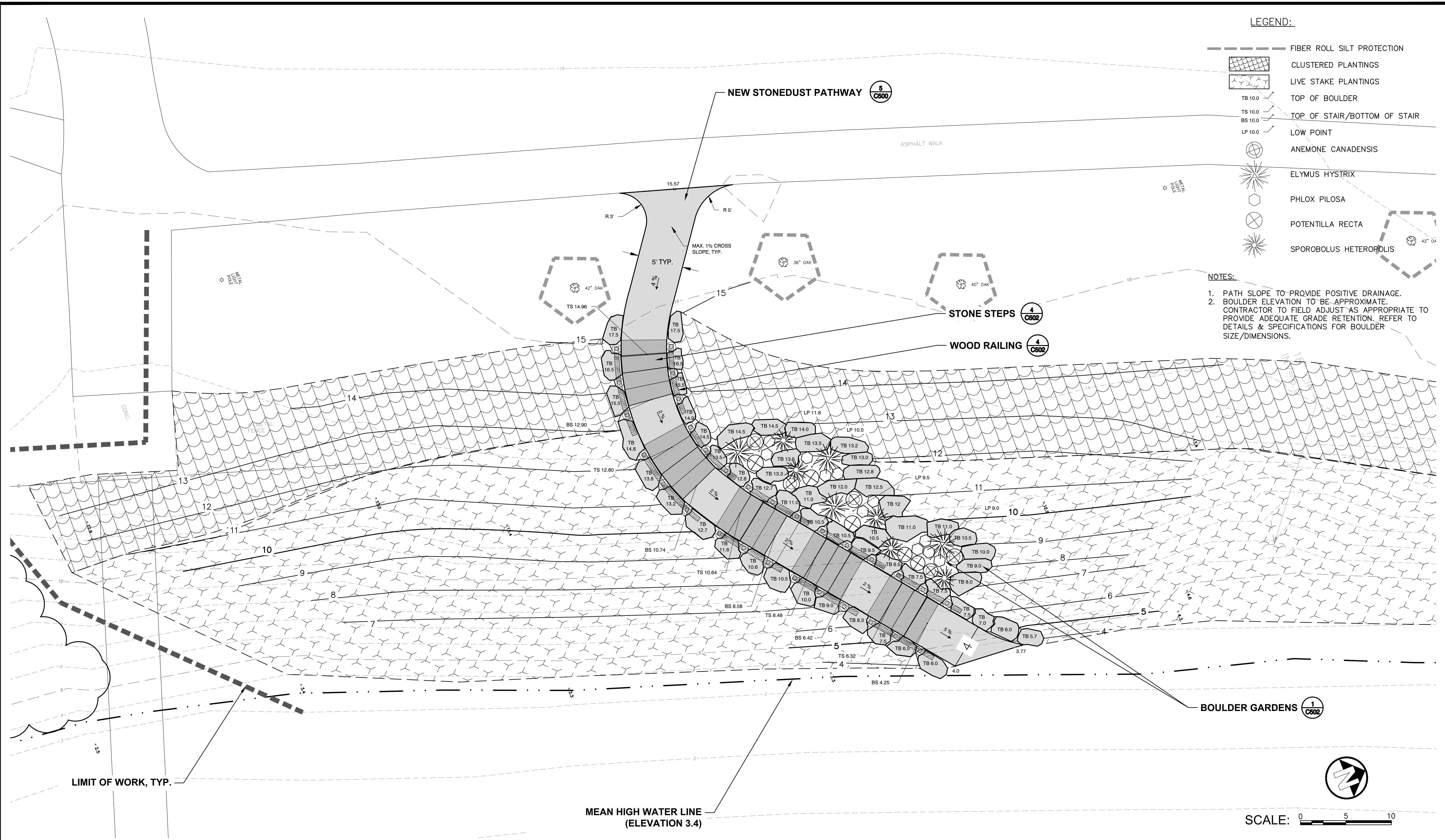


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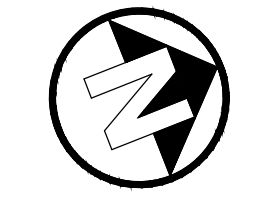
HUDSON SHORES PARK SUSTAINABLE SHORELINE DESIGN			
		LANDSCAPE PLAN 4	
PREPARED BY: RAM/DPB		DWG. NO: L103	
SCALE: AS NOTED		CONTRACT NO.	

JOB MANAGER M. STOTTLE, DESIGN E. REDDING/J. WESOLOWSKI, DRAFTING C. JENKINS, CHECK



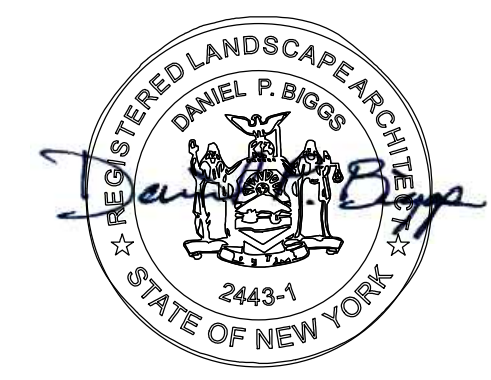
- LEGEND:**
- FIBER ROLL SILT PROTECTION
 - CLUSTERED PLANTINGS
 - LIVE STAKE PLANTINGS
 - TS 10.0 TOP OF BOULDER
 - BS 10.0 TOP OF STAIR/BOTTOM OF STAIR
 - LP 10.0 LOW POINT
 - ANEMONE CANADENSIS
 - ELYMUS HYSTRIX
 - PHLOX PILOSA
 - POTENTILLA RECTA
 - SPOROBOLUS HETEROPOLIS

- NOTES:**
1. PATH SLOPE TO PROVIDE POSITIVE DRAINAGE.
 2. BOULDER ELEVATION TO BE APPROXIMATE. CONTRACTOR TO FIELD ADJUST AS APPROPRIATE TO PROVIDE ADEQUATE GRADE RETENTION. REFER TO DETAILS & SPECIFICATIONS FOR BOULDER SIZE/DIMENSIONS.



SCALE: 0 5 10

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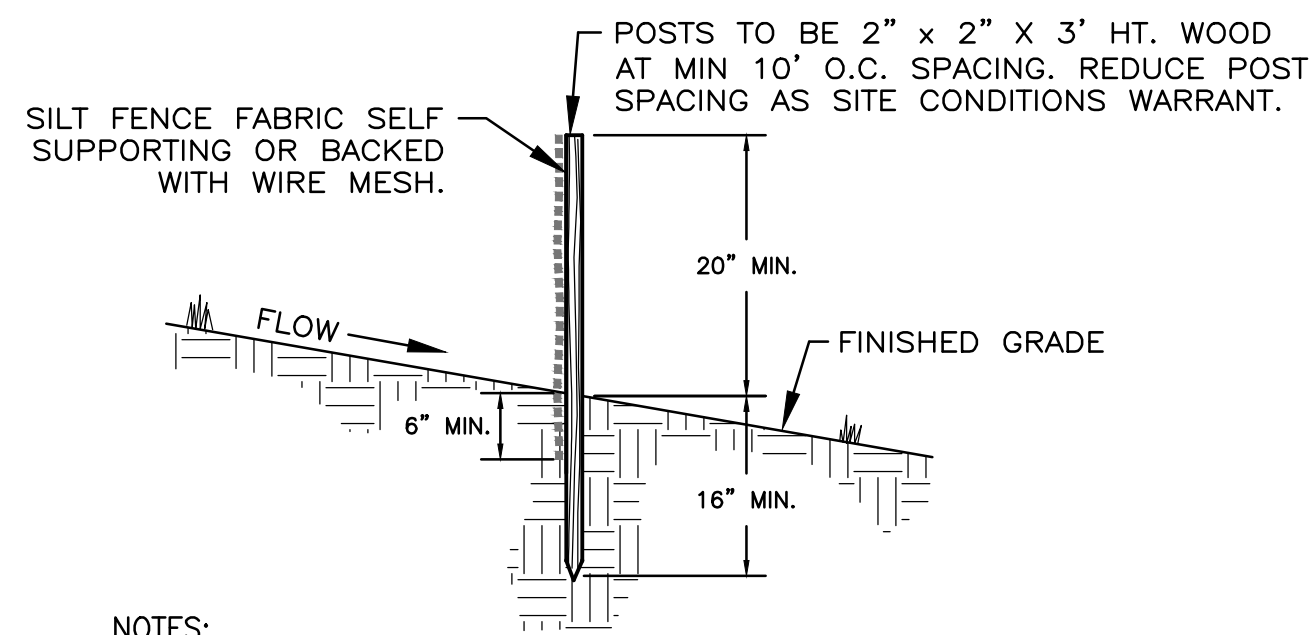
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HUDSON SHORES PARK SUSTAINABLE SHORELINE DESIGN

STAIR AND BOULDER ENLARGEMENT

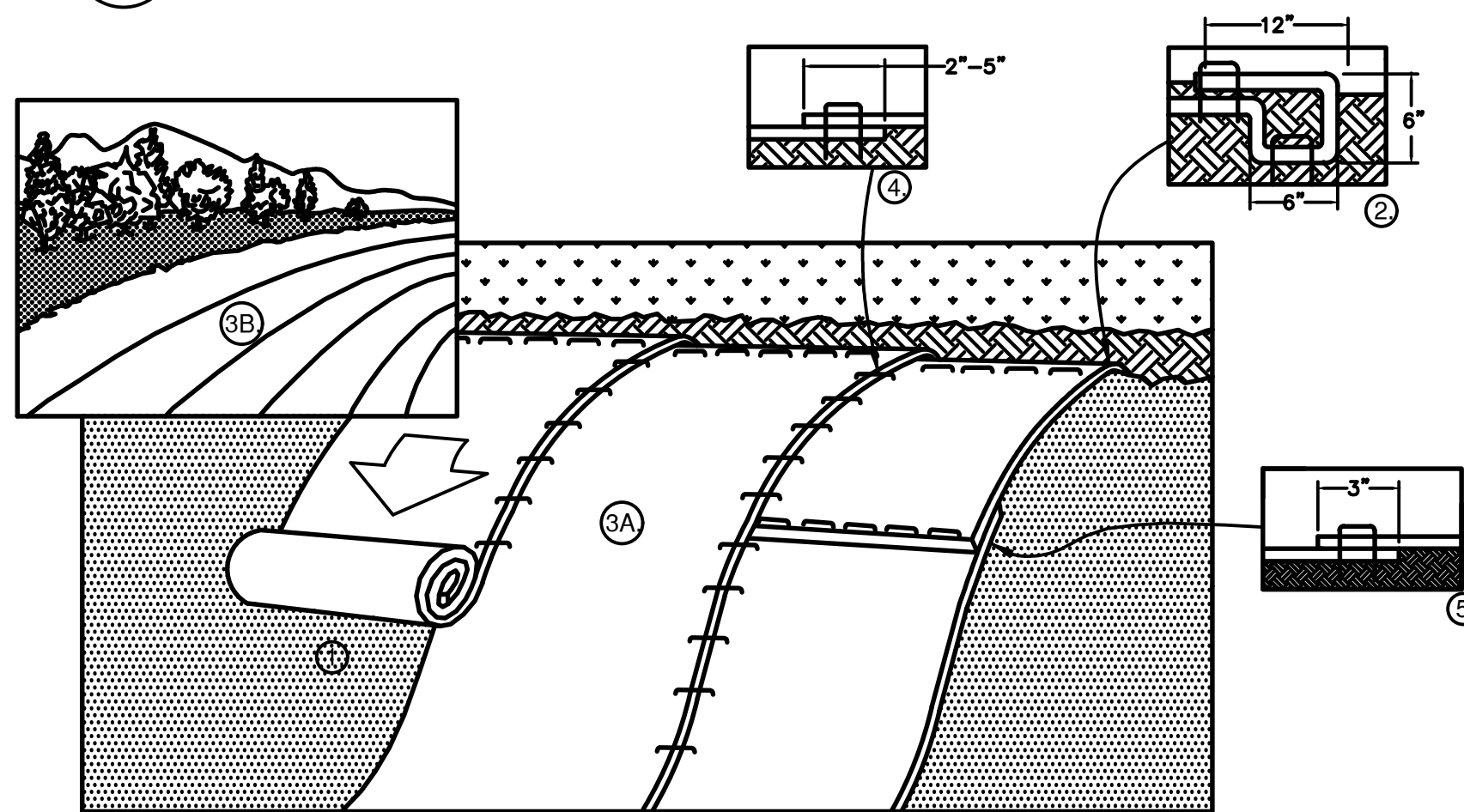
 PREPARED BY: RAM/DPB	DWG. NO.: L400
SCALE: AS NOTED	CONTRACT NO.

JOB MANAGER M. STOTTLER DESIGN E. REDDING/J. WESOLOWSKI DRAFTING C. JENKINS CHECK



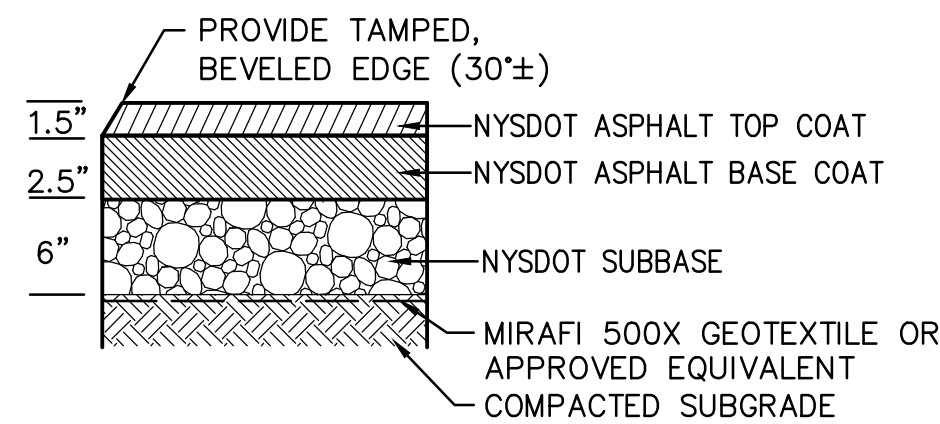
- NOTES:**
- SILT FENCE FABRIC SHALL BE FIRMLY ATTACHED TO POSTS USING WIRE TIES OR STAPLES.
 - EMBED FILTER CLOTH A MINIMUM OF 6" BELOW FINISHED GRADE.
 - WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED A MINIMUM OF SIX INCHES AND FOLDED.
 - MAINTENANCE SHALL BE PERFORMED IN ACCORDANCE WITH THE "GENERAL MAINTENANCE PLAN" OR WHEN BULGES OF MATERIAL DEVELOP IN FENCES.

1 SILT FENCE (IF DEEMED NECESSARY)
SCALE: N.T.S.



- PREPARE SOIL BEFORE INSTALLING ROLLED EROSION CONTROL PRODUCTS (RECP's), INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED.
 - BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE RECP's IN A 6" DEEP X 6" WIDE TRENCH WITH APPROXIMATELY 12" OF RECP's EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE RECP's WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" PORTION OF RECP's BACK OVER SEED AND COMPACTED SOIL. SECURE RECP's OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" APART ACROSS THE WIDTH OF THE RECP's.
 - ROLL THE RECP's (A.) DOWN OR (B.) HORIZONTALLY ACROSS THE SLOPE. RECP's WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL RECP's MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING THE DOT SYSTEM, STAPLES/STAKES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.
 - THE EDGES OF PARALLEL RECP's MUST BE STAPLED WITH APPROXIMATELY 2" - 5" OVERLAP DEPENDING ON RECP's TYPE.
 - CONSECUTIVE RECP's SPICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3" OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" APART ACROSS ENTIRE ON RECP's TYPE.
- NOTE: *IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" MAY BE NECESSARY TO PROPERLY SECURE THE RECP's.

2 SLOPE STABILIZATION MATTING (IF DEEMED NECESSARY)
SCALE: N.T.S.



3 ASPHALT (LIGHT DUTY)
SCALE: N.T.S.

PROTECTION OF TREES:

CRITICAL ROOT ZONE PROTECTION NOTES:

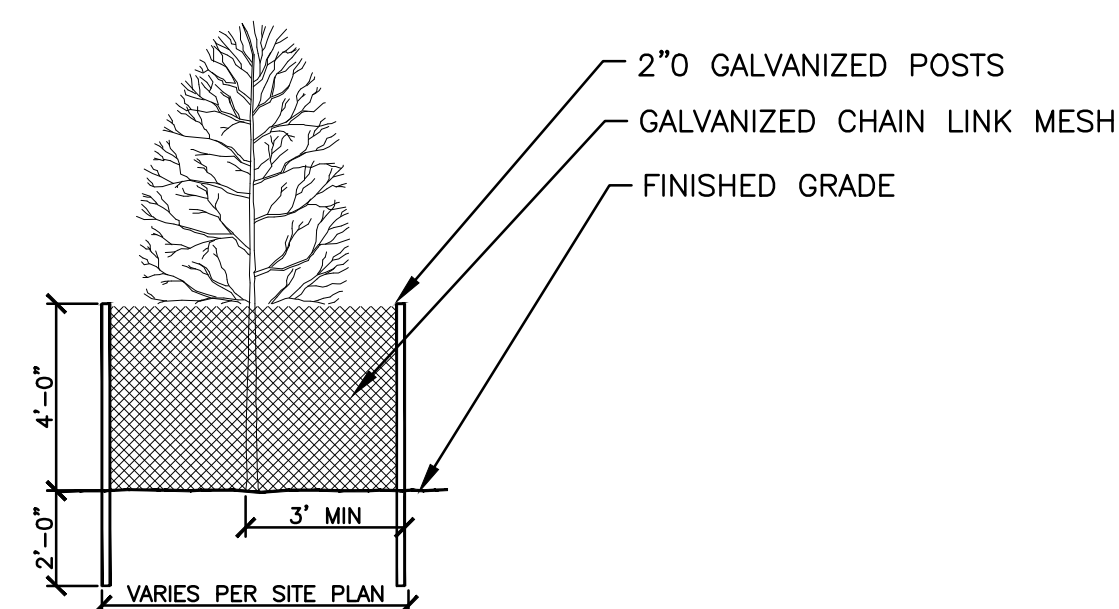
- PROVIDE TREE PROTECTION FENCE DURING CONSTRUCTION AROUND THE PERIMETER OF THE CRITICAL ROOT ZONE AS ILLUSTRATED ON PLAN C201.
 - FENCE SHALL BE 4' ORANGE SNOW FENCE SECURED WITH T-POSTS OR SIMILAR.
 - THE TREE CANOPY AND TRUNK SHALL BE PROTECTED FROM DAMAGE.
- ALONG THE OUTSIDE PERIMETER OF THE CRITICAL ROOT ZONE, HAND DIG TO 18-INCH DEPTH AND PRUNE ROOTS OF TREES TO BE PROTECTED WITH A CLEAN, SHARP BLADE TO AVOID RIPPING/TEARING OF ROOTS BY EXCAVATOR AND/OR SOIL BLENDER EQUIPMENT.
- NO CONSTRUCTION EQUIPMENT SHALL BE PERMITTED WITHIN PROTECTED CRITICAL ROOT AREA (INCLUDE TREE PROTECTION FENCING), IN THE EVENT THAT ANY DISTURBANCE AND/OR EQUIPMENT ENTER THE FENCED/PROTECTED AREA, THE FOLLOWING PROCEDURES SHALL BE FOLLOWED:
 - PROVIDE A 12 TO 18-INCH THICK MULCH LAYER AND LAYDOWN SHEETS OF 1/2" PLYWOOD BENEATH AREAS OF EQUIPMENT.
 - UPON COMPLETION OF WORK, REMOVE PLYWOOD AND MULCH LAYER.
- CONTRACTOR SHALL REPLENISH TOPSOIL AND PROVIDE WATER TO TREES DISTURBED/DAMAGED BY CONSTRUCTION.

LANDSCAPE REPLACEMENT:

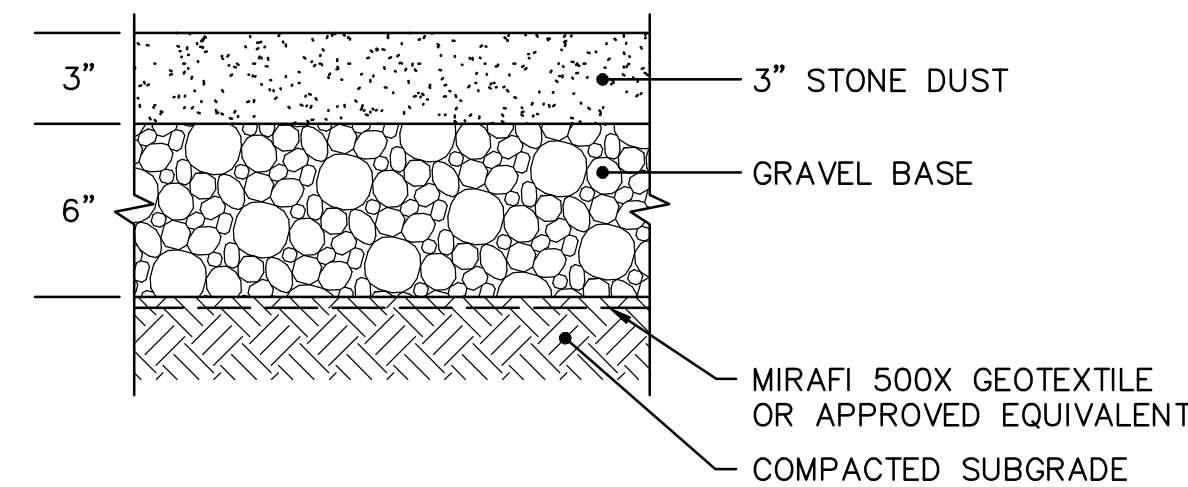
REMOVE TREES AND OTHER LANDSCAPE FEATURES SCARRED OR DAMAGED BY EQUIPMENT OPERATIONS, AND REPLACE WITH EQUIVALENT, UNDAUNTED TREES AND LANDSCAPE FEATURES. OBTAIN OWNER/ARCHITECT'S APPROVAL BEFORE REPLACEMENT. REPLACEMENT OF TREES SHALL OCCUR ON A ONE-TO-ONE BASIS.

NOTES:

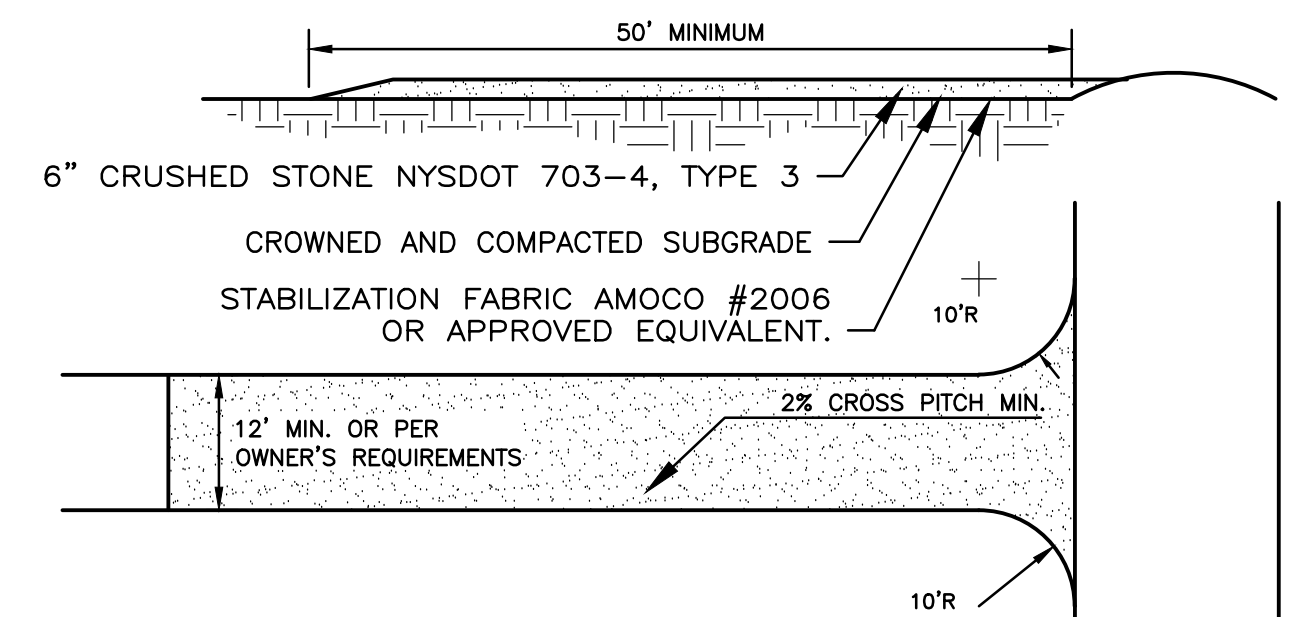
- OUTSIDE EDGE OF GUARD SHOULD BE PLACED AT DRIPLINE OR AS INDICATED ON DEMOLITION PLAN. GUARDS MAY BE PLACED AROUND SINGLE TREES OR GROUPS OF TREES AS SHOWN ON PLAN.



4 TREE PROTECTION & REPLACEMENT
SCALE: N.T.S.



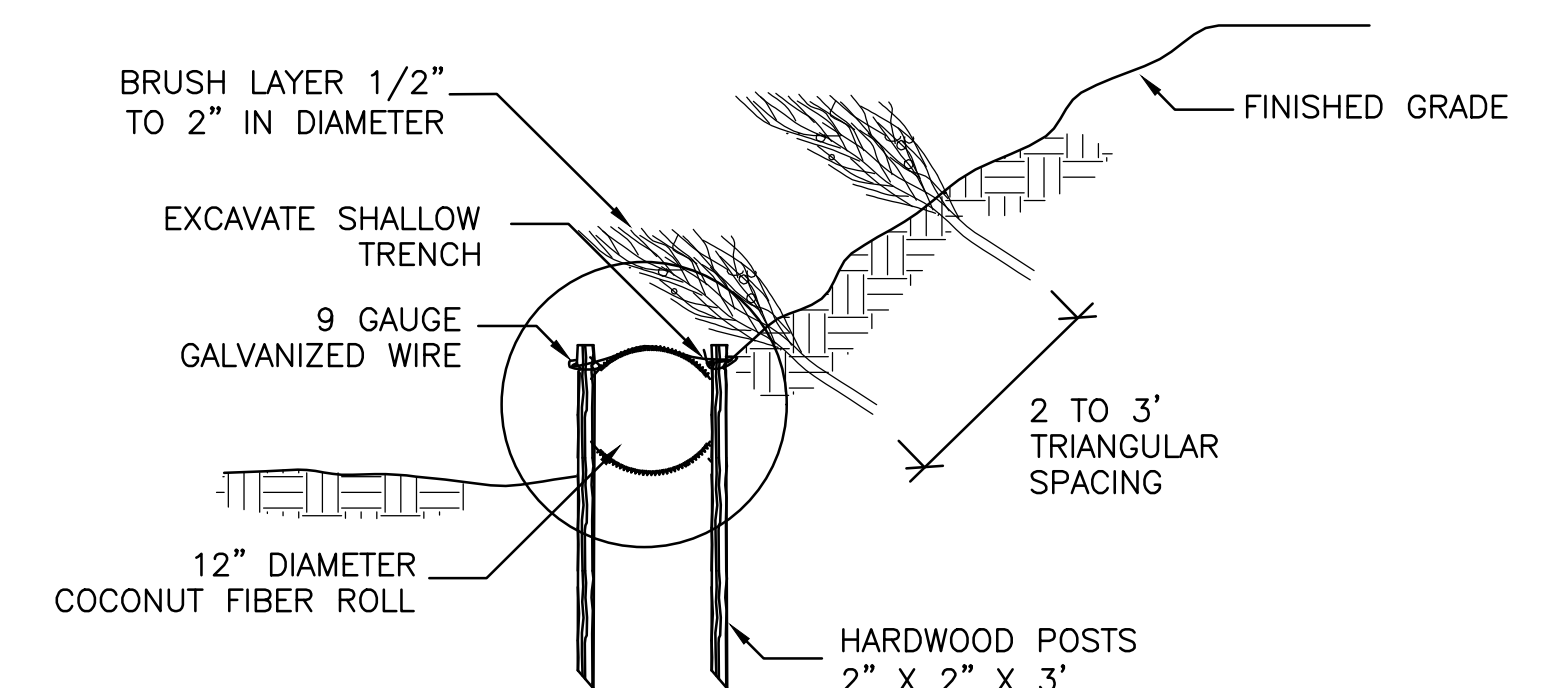
5 STABILIZED STONE DUST PATHWAY
SCALE: N.T.S.



NOTES:

- STABILIZATION FABRIC SHALL BE PLACED OVER THE ENTIRE ENTRANCE AREA PRIOR TO PLACING OF STONE. OVERLAP FABRIC PER MANUFACTURER'S SPECIFICATIONS.
- ALL SURFACE WATER FLOWING OR DIVERTED TOWARDS THE CONSTRUCTION ENTRANCE SHALL BE PIPED BENEATH THE ENTRANCE ROAD.
- WHEN EQUIPMENT WASHING IS REQUIRED IT SHALL BE DONE ON A SEPARATE AREA ADJACENT TO THE ENTRANCE ROAD AND STABILIZED WITH STONE. EQUIPMENT WASHING WILL BE REQUIRED IF ROAD RECEIVES SIGNIFICANT SOILS OR DEBRIS ACCORDING TO JUDGMENT BY OWNER OR OWNER'S REPRESENTATIVE.
- KEEP ROADS CLEAR OF STONES, MUD, AND OTHER CONSTRUCTION DEBRIS. CLEAN PAVEMENT AS ACCUMULATIONS WARRANT AND AS ORDERED BY ENGINEER.
- REMOVE SILT ACCUMULATIONS ROUTINELY AND DISPOSE OF PROPERLY SUCH THAT WATER QUALITY IS NOT IMPAIRED. DO NOT INTRODUCE SILT INTO DRAINAGE SYSTEM OR TOPSOIL/RESTORATION AREAS.

6 CONSTRUCTION ENTRANCE (IF DEEMED NECESSARY)
SCALE: N.T.S.



CONSTRUCTION SPECIFICATIONS

- EXCAVATE A SHALLOW 4" TRENCH ON SLOPE CONTOURS OR AS NOTED ON PLANS.
- PLACE THE ROLL IN THE TRENCH AND ANCHOR WITH 2"x2" POSTS PLACED ON BOTH SIDES OF THE ROLL AND SPACED LATERALLY ON 2' TO 4' CENTERS. TRIM THE TOP OF THE POSTS EVEN WITH THE EDGE OF THE ROLL, IF NECESSARY.
- NOTCH THE POSTS AND TIE TOGETHER, ACROSS THE ROLL, WITH 9-GAUGE GALVANIZED WIRE OR 3/8" DIAMETER BRAIDED NYLON ROPE.
- PLACE SOIL EXCAVATED FROM THE TRENCH BEHIND THE ROLL AND HAND TAMP. PLANT WITH SUITABLE HERBACEOUS OR WOODY VEGETATION AS NOTED ON PLANS. VEGETATION SHALL BE PLACED IMMEDIATELY ADJACENT TO THE ROLL TO PROMOTE ROOT GROWTH INTO THE FIBER. HERBACEOUS VEGETATION MAY BE PLANTED INTO THE FIBER ROLL.

7 FIBER ROLL
SCALE: N.T.S.

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HUDSON SHORES PARK SUSTAINABLE SHORELINE DESIGN

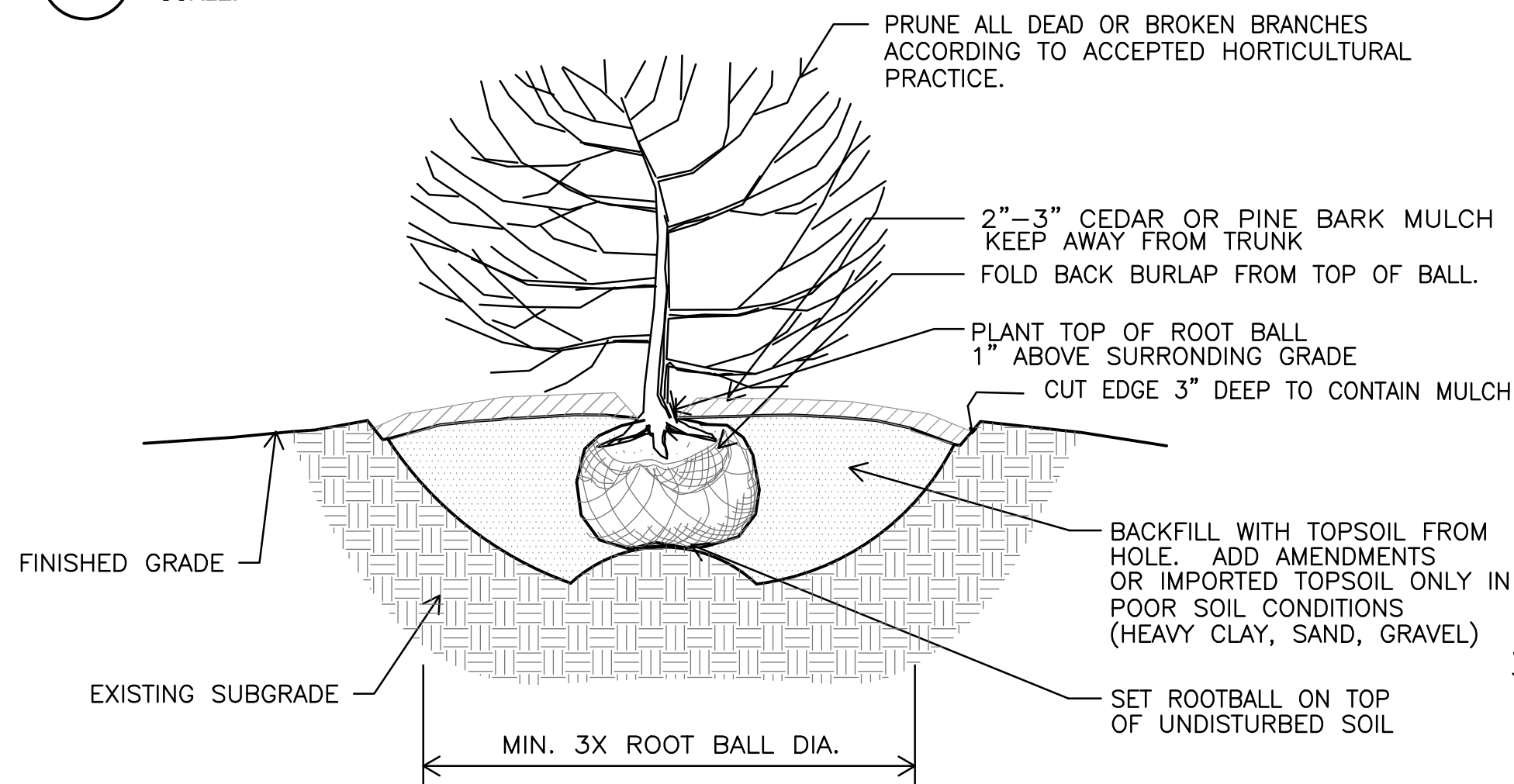


EROSION & SEDIMENT CONTROL DETAILS	
PREPARED BY: RAM/DPB	DWG. NO.: C500
SCALE: AS NOTED	CONTRACT NO.

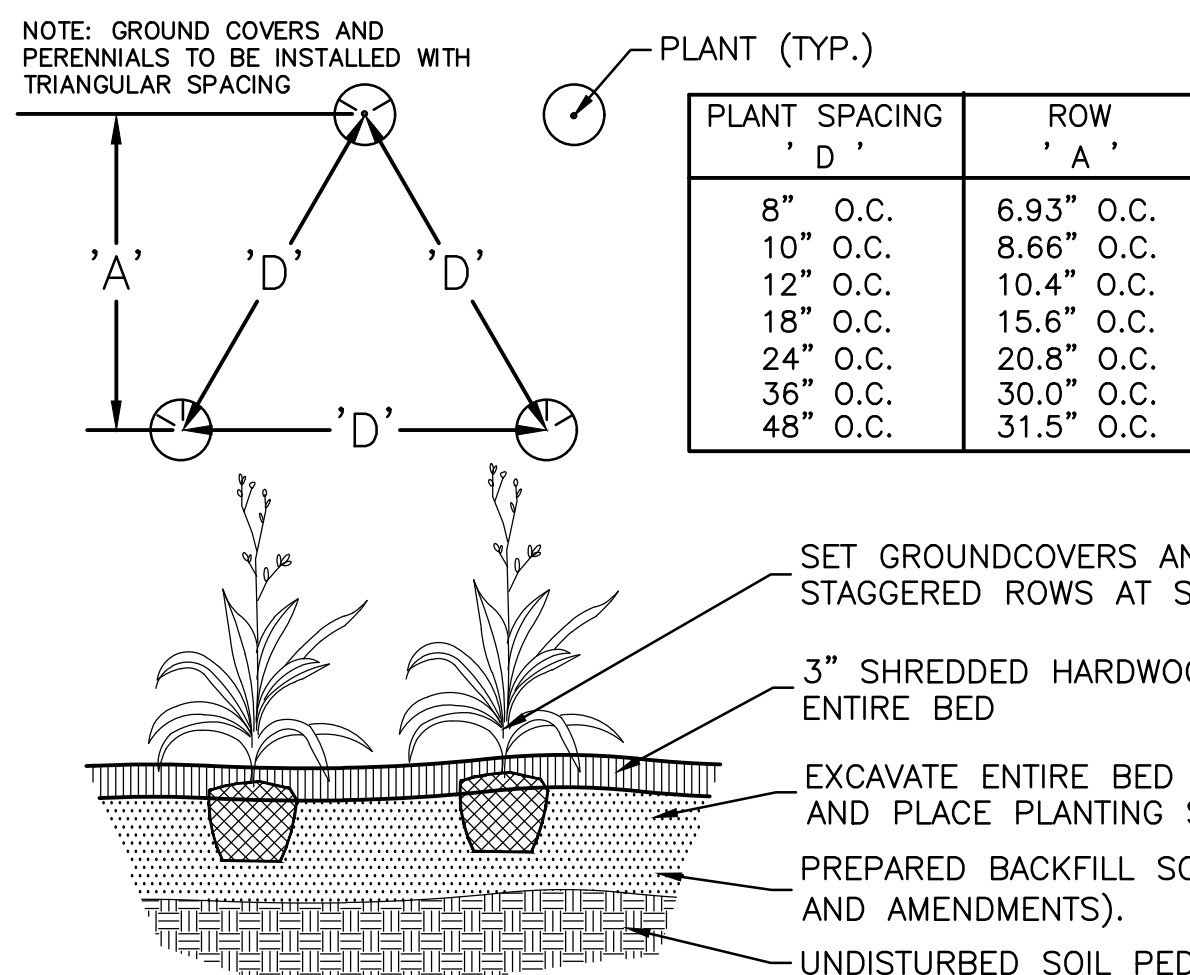
TURF SEED MIX					
	LBS/AC	LBS/AC			
% WEIGHT	BROADCAST	HYDROSEED	NAME	GERM %	PURITY %
42.0%	128	256	RED FESCUE	85%	98%
16.0%	49	98	KENTUCKY BLUE GRASS	85%	85%
42.0%	128	256	PERENNIAL RYEGRASS	90%	95%
100%	305	610			

SOIL AMENDMENT GUIDANCE			
FERTILIZER	FERTILIZER	LIME	LIME
BROADCAST	HYDROSEED	BROADCAST	HYDROSEED
10-20-10	FOLLOW	PELLETIZED	FOLLOW
500 LBS/AC	MANUFACTURER	2 TONS/AC	MANUFACTURER

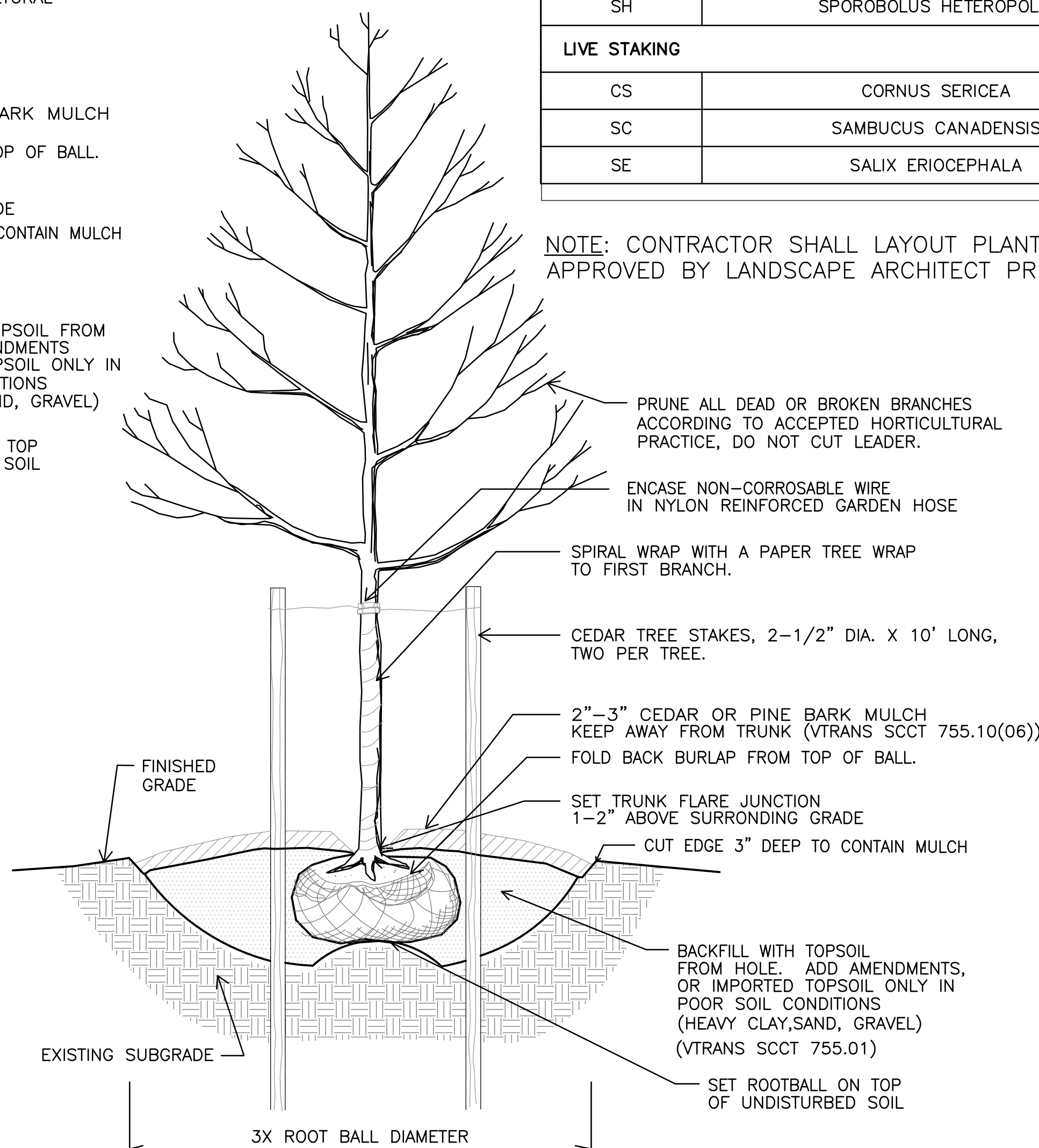
1 TURF ESTABLISHMENT
SCALE: N.T.S.



2 SHRUB PLANTING
SCALE: N.T.S.



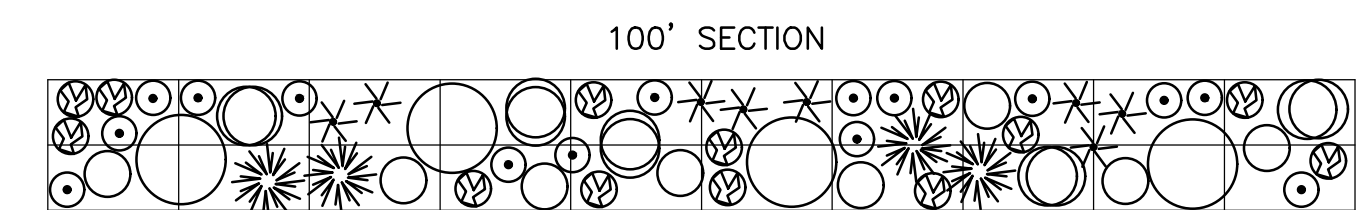
4 TREE PLANTING
SCALE: N.T.S.



5 PLANTING SCHEDULE
SCALE: N.T.S.

PLANT MATERIAL LEGEND

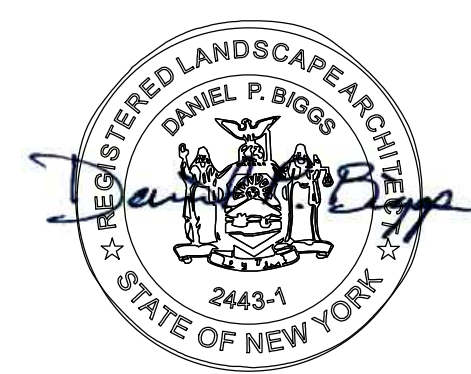
- SALIX PETIOLARIS (4 PER 1000 SF.)
- VIBURNUM CASSINOIDES (5 PER 1000 SF.)
- AMELANCHIER STOLONIFERA (4 PER 1000 SF.)
- CORNUS SERICEA (7 PER 1000 SF.)
- CALAMAGROSTIS CANADENSIS (8 PER 1000 SF.)
- ASTER SIMPLEX (15 PER 1000 SF.)
- ASCLEPIAS INCARNATA (12 PER 1000 SF.)



CLUSTERED PLANTING AREA 1 0.05 acres = 2330 sf.		CLUSTERED PLANTING AREA 2 0.02 acres = 700 sf.	
PLANT TYPE	QUANTITY	PLANT TYPE	QUANTITY
SALIX PETIOLARIS (4 per 1000 sf.)	10	SALIX PETIOLARIS (4 per 1000 sf.)	3
VIBURNUM CASSINOIDES (5 per 1000 sf.)	12	VIBURNUM CASSINOIDES (5 per 1000 sf.)	4
AMELANCHIER STOLONIFERA (4 per 1000 sf.)	10	AMELANCHIER STOLONIFERA (4 per 1000 sf.)	3
CORNUS SERICEA (7 per 1000 sf.)	16	CORNUS SERICEA (7 per 1000 sf.)	5
CALAMAGROSTIS CANADENSIS (8 per 1000 sf.)	19	CALAMAGROSTIS CANADENSIS (8 per 1000 sf.)	6
ASTER SIMPLEX (15 per 1000 sf.)	35	ASTER SIMPLEX (15 per 1000 sf.)	11
ASCLEPIAS INCARNATA (12 per 1000 sf.)	28	ASCLEPIAS INCARNATA (12 per 1000 sf.)	8

6 CLUSTERED PLANTING LAYOUT
SCALE: N.T.S.

REV NO	DATE	DESCRIPTION	DWN	PROJ
			CHK	APP.
REVISIONS				



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HUDSON SHORES PARK SUSTAINABLE SHORELINE DESIGN

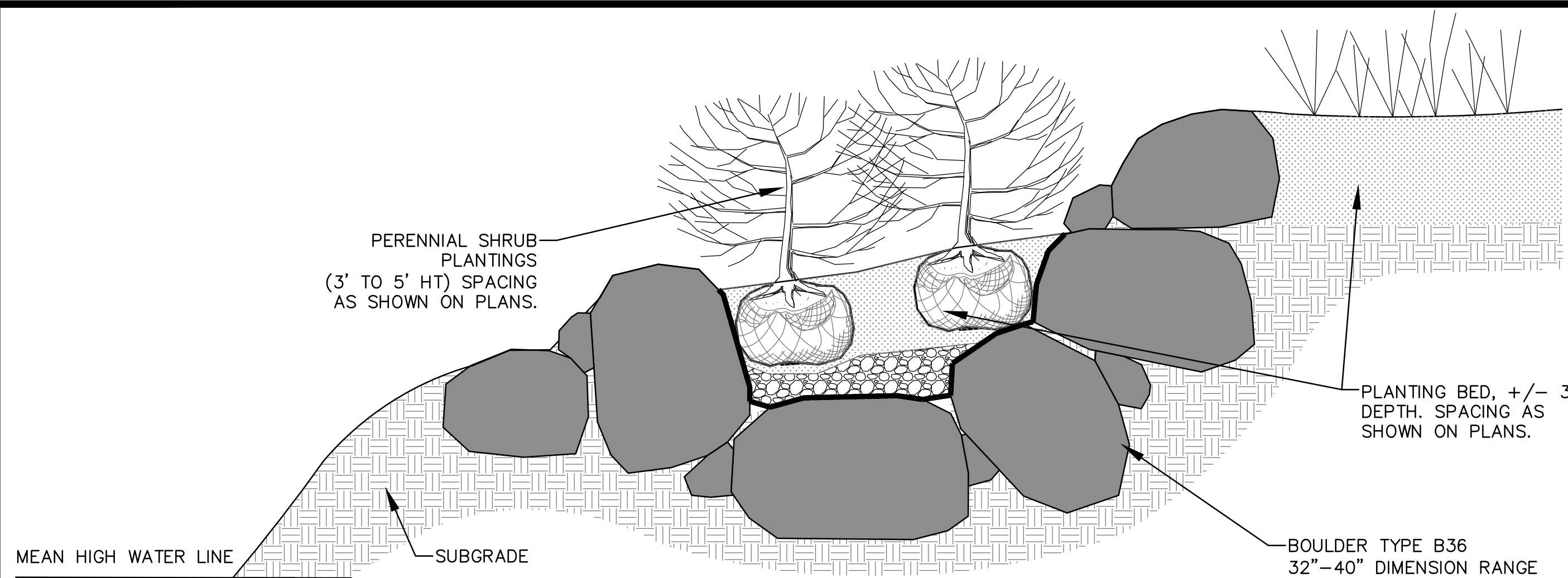


PLANTING DETAILS

PREPARED BY:
RAM/DPB
SCALE: AS NOTED

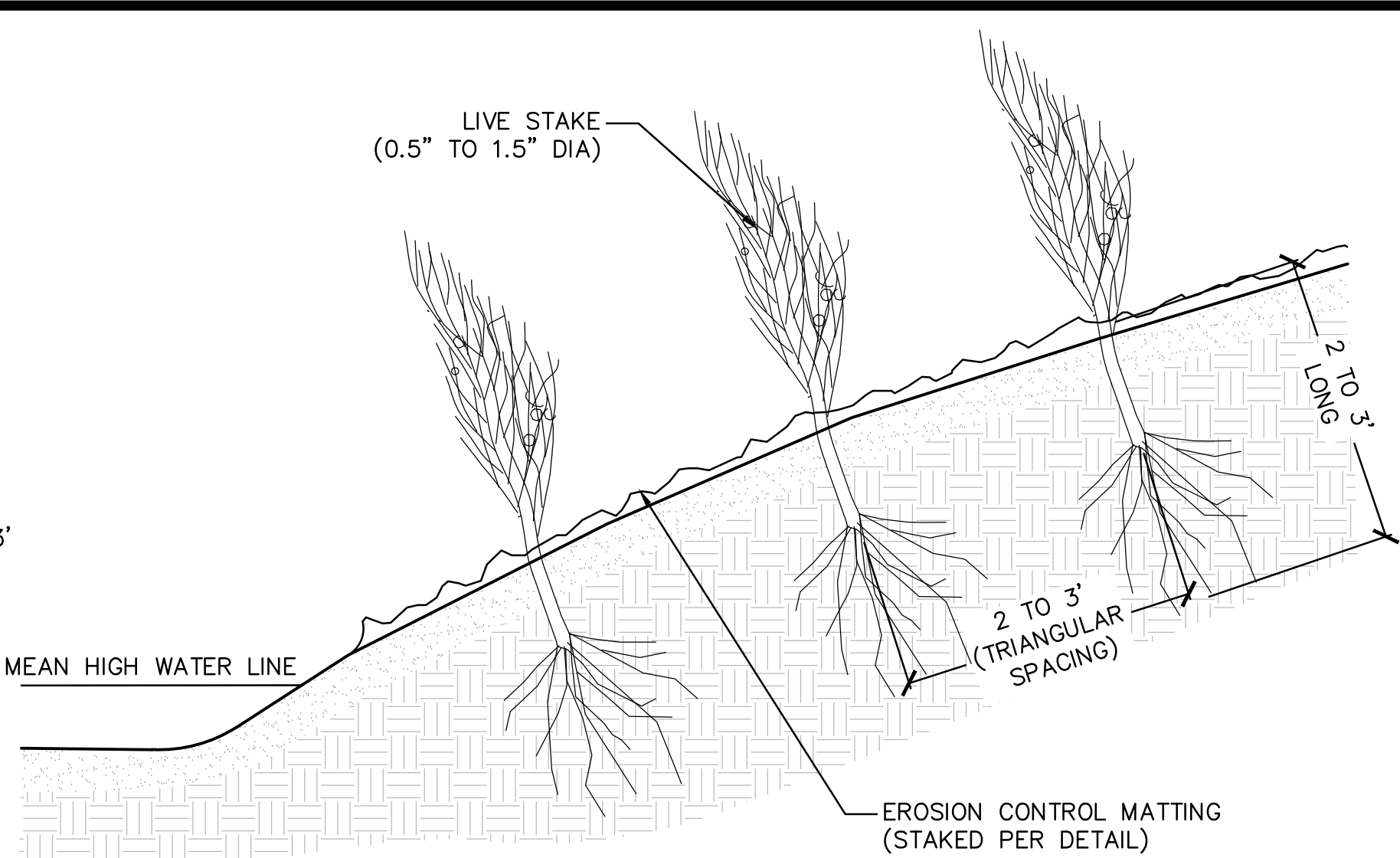
DWG. NO.:
C501
CONTRACT NO.

JOB MANAGER M. STOTTLER DESIGN E. REDDING/J. WESOLOWSKI DRAFTING C. JENKINS CHECK

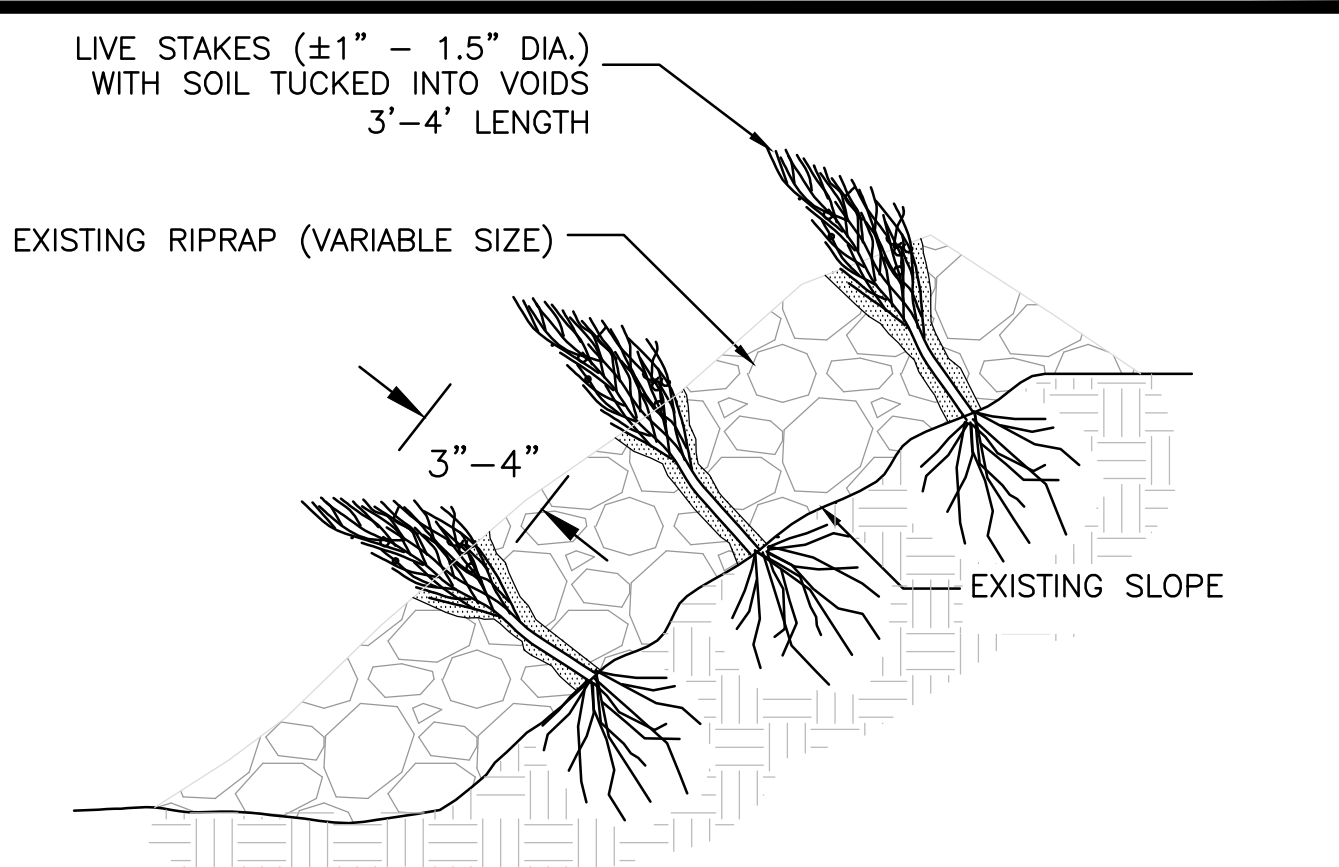


- NOTES:**
1. ARRANGE BOULDERS TO CREATE PLANTING AREA EMBEDDED INTO SLOPE.
 2. BOULDERS SHALL BE EMBEDDED INTO HILLSIDE AND STACKED STAGGERED TO CREATE A NATURAL EDGE AND ROCK FACE.
 3. PLANTINGS SHALL BE NATURALLY SPACED.

1 BOULDER PLANTING AREA
SCALE: N.T.S.

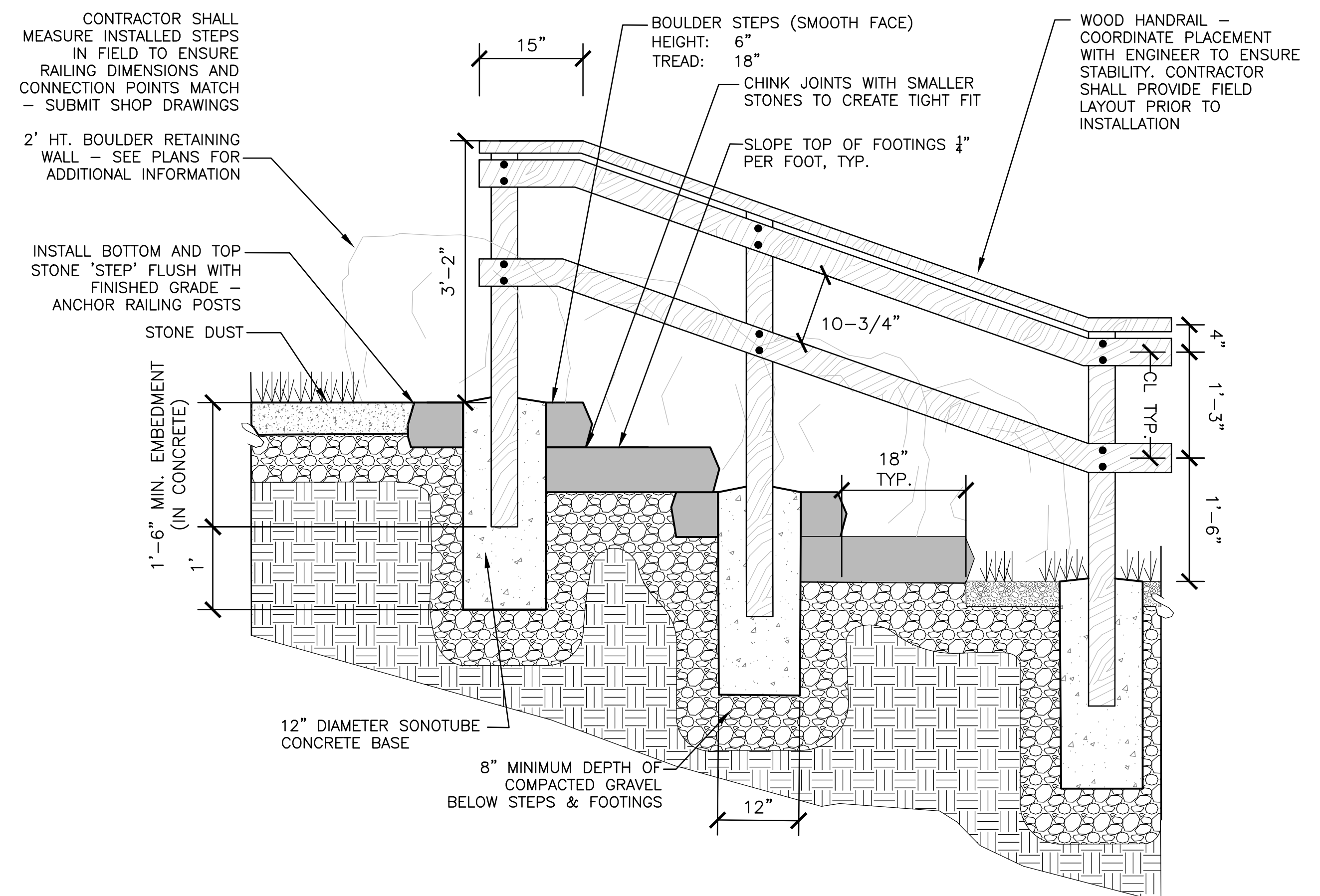


2 PLANT STAKING
SCALE: N.T.S.

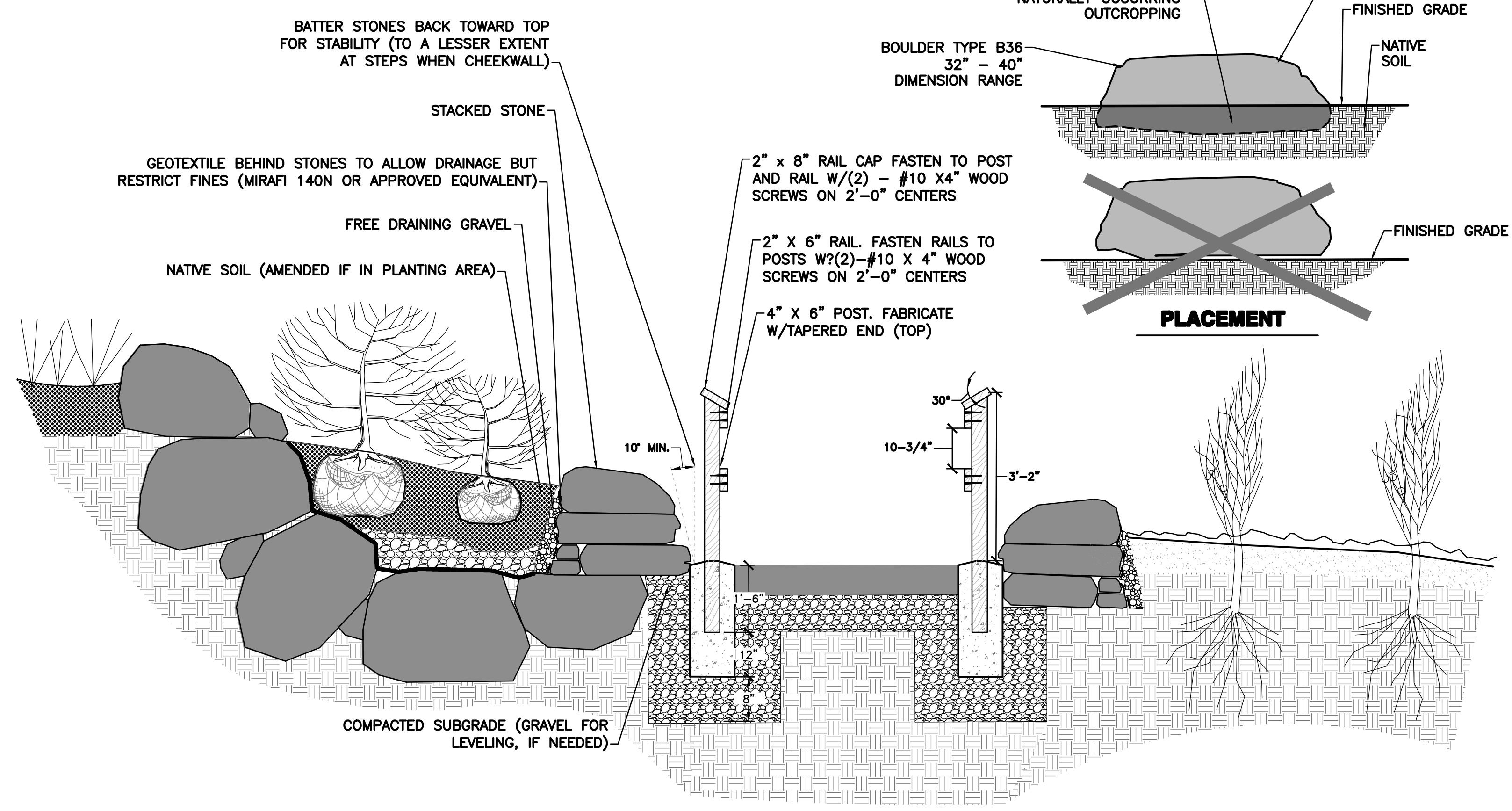


- NOTES:**
1. STAKES SHALL BE INSTALLED PERPENDICULAR TO THE SLOPE.
 2. SPACING SHALL BE BETWEEN TWO TO FOUR STAKES PER 9 SQUARE FEET.
 3. EXISTING INVASIVE SPECIES SHALL BE REMOVED PRIOR TO INSTALLATION.
 4. EXISTING RIP RAP MAY BE ADJUSTED TO ACCOMMODATE PLANTINGS.

3 PLANTINGS IN RIP RAP
SCALE: N.T.S.



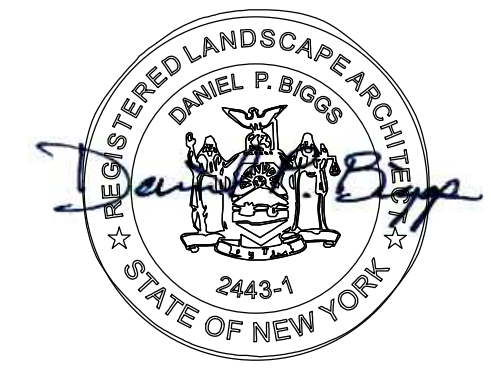
4 TYPICAL STONE STEP WITH BOULDER RETAINING WALL SECTION
SCALE: 1" = 1'



5 TYPICAL BOULDER PLACEMENT CROSS SECTION
SCALE: N.T.S.

CHECK: C. JENKINS
 DRAFTING: C. JENKINS
 DESIGN: E. REDDING/J. WESOLOWSKI
 JOB MANAGER: M. STOTTLER

REV NO	DATE	DESCRIPTION	DWN	PROJ
			CHK	APP.
REVISIONS				



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HUDSON SHORES PARK SUSTAINABLE SHORELINE DESIGN

PLANTING & SITE DETAILS

PREPARED BY: **RAM/DPB** DWG. NO.: **C502**

SCALE: AS NOTED CONTRACT NO.: