PROFESSIONAL ENGINEERING CONTINUING EDUCATION

Florida Coastal Permitting for Engineers

CCCL, Joint Coastal Permits, Sovereign Submerged Lands & USACE Coordination

Self-Paced Course Study Guide

COURSE	CREDIT / CATEGORY
ENG-019	4 PDH / Area of Practice · Civil / Environmental

INSTRUCTOR Gerald Ward, P.E.

Superior Learning, LLC d/b/a BuilderCE

Course overview

Florida coastal engineering projects can trigger overlapping beach/dune, submerged-lands, environmental-resource and federal authorizations. The correct application pathway follows the actual project footprint and effects—not the project name. This study guide uses engineering records and a fictional coastal project to connect permitting decisions to survey, design, construction and closeout.

Learning objectives

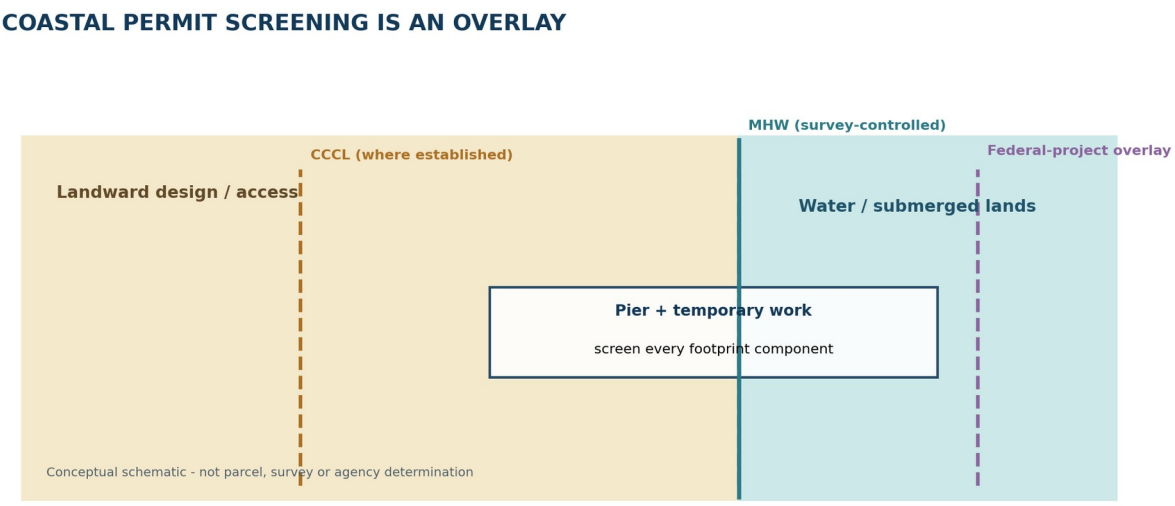
- Screen overlapping CCCL, JCP, ERP, sovereign-submerged-lands and federal triggers from project geometry and activity.
- Distinguish CCCL from JCP and reconcile mean high water, state ownership and coastal-process effects.
- Separate Florida environmental authorization from proprietary authorization for state-owned submerged lands.
- Identify separate federal Section 10, Section 404 and Section 408 purposes and current Florida 404 authority.
- Assemble a consistent permit-basis package from survey, alternatives, impact quantities and construction methods.
- Manage agencies, RAIs, permit conditions, design changes and closeout records through coordinated revision control.

Study plan and navigation

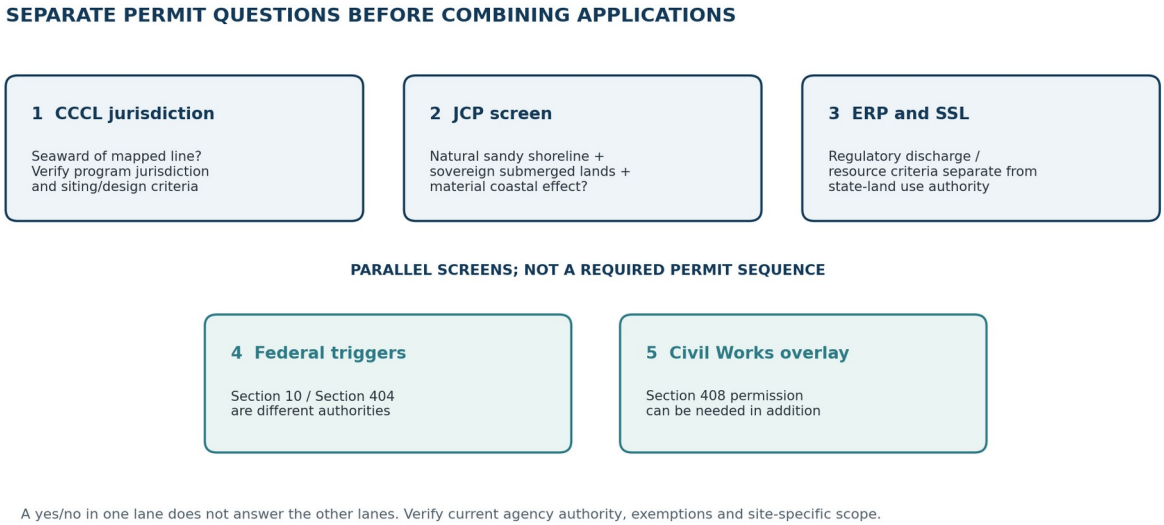
MODULE	TIME	PRACTICAL FOCUS
1	35 minutes	Permit mapping and jurisdiction screening
2	45 minutes	CCCL design, survey and 2026 rule changes
3	45 minutes	Joint Coastal Permit: beaches, inlets and dredging
4	45 minutes	ERP, state-owned submerged lands and preserves
5	40 minutes	Federal Sections 10, 404 and 408 coordination
6	30 minutes	Integrated case, construction control and future rules

MODULE 1 | 35 MINUTES

Map the permit problem before choosing the permit



Conceptual boundary overlay; jurisdiction and property lines must come from verified source maps and survey.



Permitting pathways must be screened independently and coordinated.

Coastal permitting is an overlay problem

A coastal project does not acquire one permit simply because it is “coastal.” The engineer must first identify what is being built, excavated, dredged, placed, repaired, or maintained; where each component lies relative to regulatory and ownership boundaries; which natural resources are affected; and whether a federal civil-works project is involved. The same drawing can intersect several legal programs, each asking a different question. The Coastal Construction Control Line program focuses on sensitive beach and dune areas and storm-related siting and design. The Joint Coastal Permit process consolidates specified state approvals for certain projects that extend seaward of mean high water onto sovereign

submerged lands and affect coastal processes. Environmental Resource Permitting addresses activities regulated under Part IV of Chapter 373 and Chapter 62-330. Sovereign submerged lands review addresses the State's proprietary interest as landowner. Federal review may separately arise under Section 10, Section 404, or Section 408. [1–9, 12–15]

The first professional task is therefore a permit map, not an application form. Begin with a plan view and section that show the project footprint, parcel boundaries, shoreline, mean high-water line or ordinary high-water line as applicable, CCCL if present, wetlands and other surface waters, state-owned submerged-land limits if known, navigation channels, federal project boundaries or easements, and major construction access or temporary-work areas. Then place each activity on that map: new structure, replacement structure, excavation, fill, dredging, beach placement, pipeline, dock, armoring, stormwater outfall, temporary trestle, staging, or access. A project component that looks minor in the final condition can control the permit path if construction requires temporary fill, dredging, access through dunes, or occupation of a federal project.

Four different boundaries answer four different questions

The CCCL is a state coastal-program jurisdictional line established along qualifying sandy beaches; it is not simply a building setback. DEP explains that it identifies the beach-dune area subject to severe fluctuation from a 100-year storm and marks the landward limit of CCCL Program jurisdiction. Construction or excavation seaward of the line generally requires a CCCL permit unless exempt. In qualifying coastal areas without an established CCCL, Florida's 50-foot mean-high-water setback statute may apply. [1–3]

Mean high water serves different roles. It can be a physical and legal shoreline reference, can separate upland from tidal sovereign submerged lands for many purposes, and is used in determining whether certain coastal activities extend seaward into the state's submerged lands. It must not be approximated from a convenient water stain, an aerial image, or a single observed tide. A surveyor determines boundaries within the practice of surveying and mapping; the engineer uses properly established survey control and documents the datum and basis used in design. [4–8]

Wetland and other surface-water boundaries matter to ERP and federal aquatic-resource review. A state permit boundary is not automatically identical to the federal "waters of the United States" jurisdictional boundary. Similarly, sovereign ownership and regulatory jurisdiction are different concepts: a project may need a regulatory authorization without using sovereign submerged lands, may need proprietary authorization for state-owned submerged land, or may need both. DEP's linkage framework is designed to prevent a regulatory approval from being issued while an incompatible proprietary use remains unresolved. [7–9]

Federal navigation and civil-works boundaries add another layer. Section 10 applies to specified work in navigable waters of the United States. Section 404 applies to discharge of dredged or fill material into waters of the United States. Section 408 is not another dredge-and-fill permit; it is a separate permission process for alteration, occupation, or use of an existing USACE Civil Works project. A project near a federal channel can therefore require a regulatory permit, a Section 408 review, both, or neither depending on the actual work and project limits. [12–15]

Pre-application coordination is design work

An early agency meeting is most useful when the engineer arrives with a defined problem rather than a vague request to "tell us what permits we need." Provide a one-page permit-screening map, a concise project description, preliminary alternatives, known survey control, anticipated temporary work, and a list of specific questions. Ask which DEP program will lead, whether concurrent review is expected, whether proprietary authorization is implicated, whether a water management district or delegated local program participates, what federal permit path is likely, and whether a Section 408 or other federal-project

coordination should begin in parallel. Record the answers, date, participants, and unresolved items. Pre-application discussions inform strategy but do not bind an agency to a future permit decision.

The permit map should be revisited whenever the design changes. Moving a pier, changing beach access, adding temporary sheet pile, shifting a dredge template, or changing the disposal area can alter the permitting basis. Treat regulatory boundaries and authorization assumptions as controlled design inputs, not as administrative details handed off after design.

Field exercise 1 — Build a jurisdiction matrix

For each fictional component below, list: (1) controlling geographic line or resource, (2) likely state program(s), (3) likely federal program(s), (4) one fact still needed before making a final permit determination, and (5) the professional who should provide that fact.

- A hotel proposes a new pool deck and dune crossover seaward of an established CCCL but landward of mean high water.
- A municipality proposes a fishing pier from a natural sandy Atlantic beach across mean high water and onto state-owned submerged land.
- A marina proposes maintenance dredging in a navigable tidal basin, with no beach placement, near but not within a federal navigation channel.
- A county proposes to place riprap against an existing shoreline where the activity may occupy a USACE civil-works easement.

Do not answer solely from project names. For example, “pier” does not itself establish whether a JCP applies; the location, sovereign-land status, coastal-process effect, and statutory/rule criteria matter. The purpose is to make the missing facts visible before design becomes expensive.

Engineering deep dive: draw the coastal regulatory overlays at the same scale

Coastal jurisdiction screening fails when a team overlays unrelated screenshots without checking coordinate systems, survey dates and legal purpose. A CCCL is a coastal program jurisdictional boundary, not interchangeable with the mean high water line, parcel ownership boundary, public-access easement or federal Civil Works project limit. All may fall in the same narrow construction area. The common base map should carry reliable horizontal control, datum and surveyor source, while each regulatory overlay should retain its agency, reference date and a note describing the authority it represents.

A practical exhibit uses the same scale for the shoreline, proposed pier and access, beach/dune profile, state-land exposure, wetland or seagrass resources, dredge limits and temporary construction footprint. Label every layer as surveyed, officially mapped, interpreted or pending agency determination. A desktop GIS line can establish the need to screen; it should not be elevated into a property or mean-high-water boundary without qualified surveying and legal verification.

For example, a dune walkover may require CCCL attention while a nearby pier may raise sovereign-submerged-lands, ERP and federal Section 10 questions; a wetland access abutment may create a Section 404 screen even if it is upland of the mapped CCCL. A project name such as "shoreline restoration" says little about these outcomes. Screen each activity, footprint and effect, and document conditional or uncertain triggers before choosing the application form.

Overlay	Source and control	Question it answers
CCCL	DEP legal/mapped line, survey reconciliation	Coastal-construction jurisdiction
MHW / property boundary	Licensed survey and title context	Shoreline/property and state-land questions
Wetlands and surface waters	Delineation, agency review as needed	State and federal resource triggers
Federal Civil Works feature	USACE controlled drawings/limits	Whether Section 408 review is implicated

Permit-basis version control and survey uncertainty

A survey is not a frozen truth. Tropical events, shoreline erosion, renourishment and project redesign can change controlling geometry. The design record should retain the surveyor's certification and date, survey method, vertical and horizontal references, topographic and bathymetric limits, and any discrepancy between authoritative mapping and field observations. Reconcile conflicting sources before they appear on multiple permit drawings. Do not mix MLLW-based navigation soundings with NAVD88 structural elevations or a local assumed datum without a documented transformation.

On the initial project sheet, list every dimension that controls an authorization: setback or placement, dune or beach effects, dredge prism, fill footprint, structure orientation and footprint, equipment or staging area, and material placement destination. Assign each a version and tolerance appropriate to its source; a tolerance is not a regulatory waiver. Permit reviewers need to see an internally consistent project, not a collection of differently dated plans.

Establish a coordination rule: if one agency requests a footprint change, the project engineer flags affected state and federal applications, the proprietary authorization, resource impact calculations, construction plans, cost estimate and specification hold points. Superseded survey or resource layers should be retained in the archive but not silently mixed with the live package. This reduces the risk that an otherwise minor field change creates a different regulated activity.

MODULE 2 | 45 MINUTES

CCCL permitting: siting, design, surveys, and 2026 rule changes

The CCCL is jurisdiction, not a generic setback

DEP describes the Coastal Construction Control Line as the landward limit of a program that regulates construction and excavation within the highly dynamic beach-dune system. The line is established using coastal engineering and storm-impact analysis, and activities seaward of it are subject to special siting and design considerations intended to protect the beach and dune system, structures, adjacent property, public access, native vegetation, and marine turtles. The engineer should not describe the line as a universal prohibition on construction or as the seaward edge of private ownership. [1,2]

Chapter 62B-33 underwent material amendments effective July 7, 2026, including updates to definitions, exemptions, general criteria, coastal armoring, application procedures, survey requirements, electronic submittals, modifications, emergency procedures, and general permit conditions. DEP also updated core CCCL forms in July 2026. A project team working from a pre-2026 checklist can therefore carry forward obsolete definitions or application expectations. [2,3]

Choose the application pathway from the activity, not the schedule

The CCCL program includes individual/areawide permits, general permits for qualifying activities, emergency procedures, and exemptions. The fact that a project is small, urgent, or a replacement does not automatically place it in a general, emergency, or exempt category. The engineer should screen the exact activity against current statutes and Rule Chapters 62B-33 and 62B-34, then confirm the intended pathway with the DEP permit manager when uncertainty is material. Emergency procedures address qualifying shoreline emergencies; they are not a substitute for ordinary planning merely because a construction schedule is compressed. [1–3]

For individual and areawide permits, Rule 62B-33.005 states the general criteria; Rule 62B-33.008 addresses application requirements and procedures; Rule 62B-33.0081 addresses survey requirements. The 2026 version of the rule chapter should be treated as the starting point for every new application. Engineers should also confirm whether the property is in a county or shoreline segment with an established CCCL, a 50-foot setback situation, an erosion-control line, or project-specific circumstances that change the applicable reference. [2,3]

A defensible CCCL design record

A CCCL package is stronger when the design basis is explicit. At minimum, the engineer should be able to explain the existing site, project purpose, relevant shoreline and dune features, proposed limits of work, elevations and vertical datum, foundation and structural concept where applicable, drainage, access, temporary construction impacts, anticipated dune or vegetation disturbance, and how the project avoids or minimizes adverse coastal-system effects. The exact submittal requirements are governed by the current forms and rule; the engineering record should be organized so each required drawing or calculation can be traced to a design decision.

Survey control is especially important. A plan that combines a CCCL location from one source, a topographic survey in another datum, a mean high-water line from a third source, and architectural elevations with an undocumented benchmark can appear complete while being internally inconsistent. The engineer should place datum, benchmark, survey date, source, and responsible survey professional on the permit-basis checklist. If a later survey changes a controlling boundary or elevation, the permit impact should be evaluated before construction documents are issued.

Siting and coastal-process effects

The coastal engineer's task is not limited to showing that a structure is strong enough. The project must be evaluated in the context of the beach-dune system and storm-driven change. Depending on the project, relevant questions can include whether the activity impedes natural dune function, creates localized scour or reflection, interferes with sediment movement, increases vulnerability of adjacent property, obstructs public access, or places critical components where storm-driven erosion or wave action is expected. Rule 62B-33.005 and related provisions frame the state review; project-specific calculations and analyses must match the proposed activity. [2,3]

Coastal armoring requires special caution because a wall or revetment that protects one asset can affect the beach and neighboring shoreline. Rule 62B-33.0051 was amended effective July 7, 2026. A design team should therefore verify the current eligibility, vulnerability, location, design, and related criteria before relying on an older permit precedent. A previously permitted seawall is evidence of what was authorized for that site and time; it is not proof that a new or replacement structure qualifies under current rules. [3]

Construction-phase certifications and deviations

Permitting continues after issuance. DEP maintains forms for foundation location certification and final certification. The design professional may need to confirm that construction matches the approved plans and conditions and to document minor deviations. The project team should decide before mobilization which measurements, photographs, surveys, material records, and inspection observations are required to support those certifications. A field change that is structurally acceptable is not automatically permit-compliant. [1]

Create a permit deviation log alongside the ordinary RFI/submittal log. For each proposed deviation, record the permitted condition, proposed change, reason, effect on environmental limits and design criteria, agency notification requirement, decision, and final record drawing. If the permit requires prior written authorization, obtain it before implementing the change. When a contractor discovers a field conflict, "we can make it work" is not a sufficient regulatory basis.

Field exercise 2 — Survey and change-control audit

A beachfront project has a permitted foundation location based on a survey completed 14 months before construction. During excavation, a new survey finds that the field stake for one pile cap is 2.2 feet seaward of the permitted location. The structural engineer says the shift is acceptable and would simplify construction. Outline the five-step decision process you would require before authorizing the shift. Your

answer should address survey verification, permit drawings/conditions, coastal-effect significance, agency communication, and construction record control.

CCCL application completeness in the 2026 form environment

The Florida DEP page for Form 73-100 identifies a revised CCCL permit application effective July 14, 2026. A professional team should confirm the currently effective form, the relevant individual, general or emergency permit pathway, and the guidance applicable to its actual activity before issuing an application. Draft regulatory text and pre-application email guidance are not themselves final permits. The basis package should describe the coastal hazard, site conditions, regulated improvements, work limits and construction method in consistent terms.

An efficient design review divides submittal completeness from technical approvability. Completeness asks whether the application is signed correctly, the survey and engineering drawings have a coherent coordinate reference, the relevant photographs or profiles are included, and the activity descriptions match the plans. Technical approvability asks whether the applicant has adequately addressed beach/dune processes, siting, structural issues, adjacent-property effects, native vegetation, access and applicable species constraints under the relevant rules. Passing one gate does not establish the other.

Prepare a controlled application ledger with form version, plan revision, signatory/certification responsibility, source studies, unresolved agency questions, and the deadline for each required response. State the limits of engineering responsibility: a professional engineer should not certify an ownership or survey boundary outside the engineer's competence; the appropriate professionals must establish those facts. During construction, verify any location certification, monitoring or final certification required by the issued conditions rather than assuming every project has identical post-permit paperwork.

Review gate	Evidence retained	Failure to prevent
Forms and authority	Current Form 73-100 and rule pathway	Outdated or wrong application
Survey and design	Compatible datum, signed drawings, work limits	Conflict between sections and plan
Coastal effects	Site-specific beach, dune and adjacent effects	Unsupported engineering basis
Construction controls	Conditions, surveys, approved deviation pathway	Unapproved field changes

Siting and material alternatives: a permit is not a design substitute

Coastal engineers often face an apparent binary choice between armor and no action. A more defensible alternatives record identifies the actual service or erosion-control objective and considers feasible alignment, footprint, access, staged construction, nature-based or hybrid measures, and ongoing maintenance. A design can be structurally sound yet impose unacceptable beach, dune, navigation or habitat effects. The alternative discussion must therefore be tied to the jurisdiction and criteria that govern the particular permit path.

Create a comparison sheet with footprint and affected area, construction duration, coastal-process sensitivity, maintenance demand, habitat or navigation effects, public access and residual risk. For an access pier, compare spans or abutment placement that avoid resource disturbance; for a beach improvement, consider material compatibility and shoreline response. A stated minimization benefit should link to plans and quantities that the reviewing agency can reproduce.

Document what is known and what is not. A proposed living shoreline can be screened as an alternative without asserting that a proposed Florida general permit is already effective. Similarly, selecting a "low-impact" option does not automatically satisfy state proprietary requirements or federal permits. The final design should show why an alternative was chosen and which adverse effects must still be addressed under the applicable review.

Coastal-process and geotechnical evidence before a shoreline concept

A coastal improvement must be screened against the processes that control its setting. Wave climate, tidal water levels, longshore transport, sediment supply, inlet behavior, erosion history and storm-driven beach/dune change can govern the performance of a revetment, nourishment or hybrid design. Early hydrodynamic or sediment-budget models should state their inputs and limitations; a single aerial image or one profile is insufficient to claim that a shoreline is in long-term equilibrium. The engineer should distinguish observed erosion trends, short-term post-storm change and future scenario assumptions.

Geotechnical and subsurface data can be equally decisive. Foundation or anchor options depend on soil strength, scour, settlement, groundwater and constructability. For a pier, the design needs compatible geometry for navigation clearance and environmental impacts as well as structural support. A modification to pile size or spacing may change shading, equipment access and the permitted work envelope even when the overall pier plan area appears unchanged.

An honest permit basis therefore carries a conceptual model, a surveyed baseline, documented design events or scenarios, material and construction assumptions and a list of unresolved investigations. Reconcile which parts of the design are sufficient for jurisdictional screening and which require further engineering before an application or construction release.

Design information	Why it matters	Record to preserve
Surveyed beach/dune profile	Elevation and placement basis	Date, datum and survey limits
Sediment and littoral processes	Nourishment or erosion response	Sampling and study assumptions
Subsurface and scour	Foundation/temporary work feasibility	Borings, design criteria, exposure
Temporary construction geometry	Regulated effects and navigation	Contractor method envelope

Surface-water and sediment sampling: maintain chain of evidence

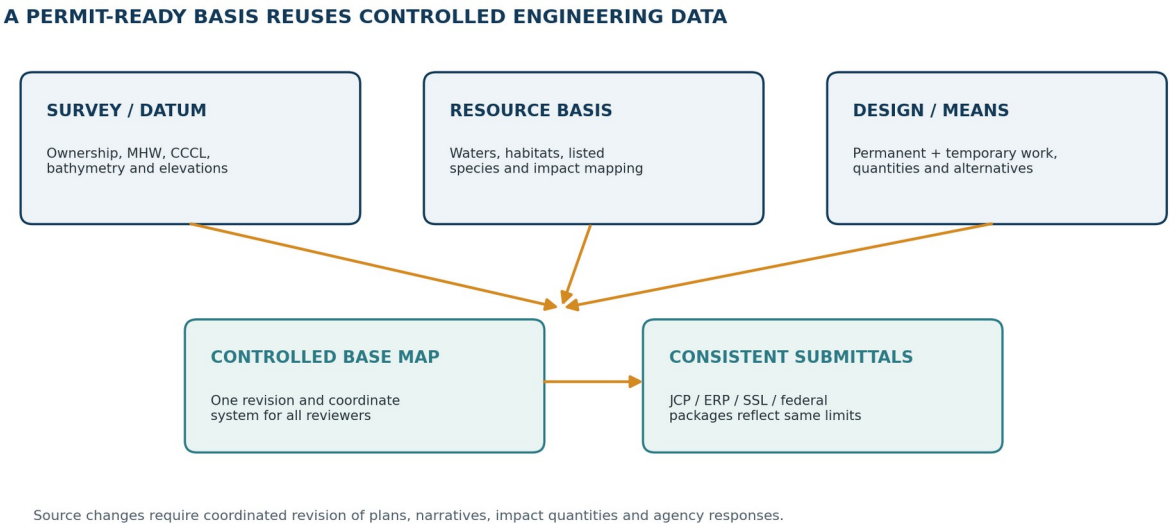
A field sample is useful only if its location, purpose and analysis are traceable. For sediment source characterization, identify the material source, expected excavation or placement region, sampling depths, collection methods, preservation and laboratory methods required by the project and reviewing agency. For habitat surveys, map the resource polygon, observation date, field conditions and professional qualifications. Do not substitute a dated desk-top classification for a field finding when the site-specific permitting criteria require more.

A sample may describe material at its point of collection but not an entire dredge prism. Variation in sediment gradation, fines, organic content or chemistry can affect placement, handling and compliance. Sampling design should reflect the spatial variability that would materially alter the proposed authorization. If the contractor later changes excavation depth or borrow source, evaluate whether the data remain representative before proceeding.

Use a chain of evidence from collection to decision: field log, sample ID, location and vertical reference, laboratory result, interpretation and effect on design or alternative. Keep raw records and qualifications in the project archive, while presenting decision-relevant summaries in the permit narrative. This improves response quality when an agency requests a revised footprint or further testing.

MODULE 3 | 45 MINUTES

Joint Coastal Permits for beaches, inlets, shore protection, and dredging



Permit-ready baseline data and design quantities must remain synchronized.

Why the JCP exists

Florida created the Joint Coastal Permit process to consolidate state review that previously occurred through separate coastal-construction, environmental-resource/dredge-and-fill, and sovereign-submerged-lands processes. Section 161.055 and Section 373.427 authorize concurrent review; Chapter 62B-49 provides the rule framework. DEP's Beaches, Inlets and Ports Program states that it processes JCP applications and ERP applications for navigational dredging of deepwater ports and inlets. [4–6]

DEP identifies three core characteristics for JCP projects: location on Florida's natural sandy beaches facing the Atlantic Ocean, Gulf, Straits of Florida, or associated inlets; extension seaward of the mean high-water line onto sovereign submerged lands; and a likely material physical effect on existing coastal conditions or natural beach and inlet processes. Examples include beach restoration/nourishment, groins, breakwaters, fishing piers, inlet maintenance, and navigation-channel dredging when dredged material is placed on the beach or nearshore. [4,5]

> Do not use a project-name shortcut; A dredging project is not automatically a JCP, and a pier is not automatically a CCCL-only project. Apply the current statutory and Rule 62B-49 criteria to the actual location and activity. DEP separately processes certain navigational dredging ERPs, including deepwater-port and inlet work, where the JCP criteria are not met. [4]

The consolidated state decision still contains distinct technical questions

A single JCP does not erase the underlying review criteria. Coastal-process effects, water-resource impacts, and proprietary use of sovereign submerged lands remain distinct parts of the agency's decision. The engineering application should therefore make those distinctions visible. A beach nourishment project may need shoreline-change analysis, borrow-area and sediment characterization, construction templates, turbidity controls, species constraints, and monitoring. A groin or breakwater may require coastal-process modeling or other evidence regarding downdrift and cumulative effects. A pier may raise structural, navigation, resource, and proprietary-use questions. A dredging project may

require bathymetry, channel limits, material characterization, disposal/placement design, environmental windows, and turbidity monitoring.

Section 161.041 expressly addresses coastal construction, shore-protection structures, artificial nourishment, inlet sediment bypassing, excavation or maintenance dredging of inlet channels, deposition or removal of beach material, and other specified activities on state sovereignty lands below mean high water. It also authorizes DEP to require engineer certifications and to consider engineering data on inlet and shoreline stability, storm tides, design features, and cumulative effects. [6]

Application completeness is an engineering-management problem

The JCP application integrates information needed for a coastal permit, sovereign submerged lands authorization, and a federal dredge-and-fill application for the covered activity. Concurrent processing works best when the drawing set, narrative, quantities, resource limits, and construction methods are internally consistent. If one figure shows a dredge template to -10 feet and another table calculates volume to -12 feet, every reviewing program inherits the ambiguity. If the beach fill template changes but the biological-resource survey footprint does not, the resource analysis may no longer cover the project.

Build a single permit-basis matrix with columns for project component, sheet/detail reference, horizontal limits, vertical limits/datum, quantities, temporary work, resource impact, avoidance/minimization measure, monitoring, and authorization(s). Use the matrix to reconcile the application narrative against the plan set before submittal and after each request for additional information. This is quality control: it reduces contradictory answers sent to different reviewers.

Dredging and placement: separate the excavation from the destination

Dredging decisions depend on both the excavation and the material destination. The engineer should define the dredge prism, overdepth or advance-maintenance assumptions if applicable, bathymetric survey basis, estimated quantities and uncertainty, sediment characterization, transport method, and placement/disposal location. Beach or nearshore placement introduces coastal and sediment-compatibility issues that differ from upland disposal or an authorized offshore site. The JCP framework is particularly important where navigation work and beach placement interact with littoral processes. [4–6]

Do not treat a calculated dredge quantity as exact. Survey uncertainty, side slopes, shoaling between survey and construction, allowable overdepth, bucket or cutter behavior, and post-dredge survey methods can affect pay quantity and environmental impact. For permitting, state the basis and range clearly enough that reviewers understand the maximum authorized footprint and volume. If construction later needs more depth, width, or a different placement area, evaluate the permit modification before work proceeds.

Maintenance is not permission to change the project

Florida law provides a streamlined intent for periodic maintenance of previously permitted beach nourishment and inlet management projects, and Section 161.041 provides that qualifying joint coastal permits must allow two maintenance or dredging-disposal events or a 15-year permit life, whichever is greater. That does not mean all future work is automatically covered. The permitted footprint, quantities, conditions, monitoring, environmental windows, and modification provisions still control. Maintenance planning should start with the actual permit, not with the phrase “same as last time.” [6]

Field exercise 3 — JCP screening and permit-basis matrix

A coastal county proposes to dredge an inlet channel and place compatible sand on an adjacent eroding beach. The dredging and placement extend seaward of mean high water and onto sovereign submerged lands. The work is expected to influence beach and inlet processes. Create a one-page permit-basis matrix with at least eight rows. Include survey/bathymetry, dredge prism, sediment characterization,

placement template, turbidity, species/environmental windows, sovereign-land use, and federal coordination. For each row, name the drawing, calculation, or record that should control the final value.

Engineering the dredge, placement and temporary works quantity basis

Dredging applications often quote one volume when at least four related quantities matter: the design dredge prism, allowable overdepth, possible side slopes or advance-maintenance sections, and material to be managed or placed. An illustrative rectangular prism 200 feet long by 40 feet wide with a 3-foot design cut contains 24,000 cubic feet, or about 889 cubic yards. If a separately authorized 0.5-foot allowance covered the same plan area, it would add about 148 cubic yards. These are arithmetic teaching examples only; a real dredge requires surveyed irregular geometry, actual slopes, approved tolerances, sediment management and environmental limits.

An engineer should distinguish in-situ volume from the bulking or dewatering behavior of dredged material, and from placed volume in a beach nourishment template. Sediment gradation, fines, contamination or compatibility limits, disposal or beneficial-use site, transport route, potential turbidity and shoreline response can control the project even when dredge quantity is modest. Do not assume an excavation authorization also approves placement, or that a contractor can select an unreviewed staging or disposal location.

For quantity-control QA, cross-check horizontal coordinates and bathymetric datum, version the original and proposed surfaces, label the software/method used for cut-and-fill, and issue a reconciliation sheet when plans change. A permitting reviewer should be able to trace plan view, profile, typical section, quantity table and resource impact ledger to the same model and revision date.

Illustrative quantity	Calculation	Result
Design dredge prism	200 ft x 40 ft x 3.0 ft / 27	~889 cubic yd
Conditional overdepth allowance	200 ft x 40 ft x 0.5 ft / 27	~148 cubic yd
Combined arithmetic screen	889 + 148	~1,037 cubic yd
Not included	Side slopes, bulking, compatible placement limits	Site-specific design required

JCP evidence packages: shoreline processes, sediment, and monitoring

A Joint Coastal Permit integrates state coastal-construction and environmental-review considerations but does not eliminate the separate technical logic. The project engineer should explicitly state the work purpose, shoreline process context, preproject condition, design quantities, construction methods and effects of temporary work. Resource evaluations may require qualified field surveys for seagrass, hardbottom, mangrove or other sensitive habitat, coordinated with the responsible regulator. No generic diagram can replace project-specific jurisdictional determinations.

For an inlet and beach placement project, sediment compatibility and transport are often central. Organize the submittal into a source characterization memorandum, material testing, volume accounting, an impact map, a proposed placement geometry and a construction-control plan. Preserve sample location and date and the laboratory method so the interpretation can be audited. Record expected construction windows and monitoring commitments as permit-specific items, not assumed statewide exemptions.

A permit-support memo should keep uncertainty visible. A quantity calculated from sparse soundings can have uncertainty not reflected by the output's many decimal places. Alternative placement sites may have different access, habitat, beach-profile and public-use consequences. If an agency requires a revised template, recompute the impacted area, cubic yardage, staging and monitoring together. A consistent revision set is more important than the visual polish of any single plan sheet.

Construction sequencing and turbidity-control evidence

Temporary works can trigger a separate regulated footprint. Contractor trestles, work pads, access channels, anchors, vessels, bypasses and equipment storage may intersect aquatic habitat or navigation even when absent from the permanent finished plan. The permit application should describe the feasible means and methods at a level that allows the reviewing agency to evaluate impacts. Contractor flexibility can be

preserved as an explicit, bounded method envelope rather than leaving all temporary impacts to be chosen after permit issuance.

The engineering control record should tie activity to a phase: preconstruction surveys and protected-area marking, setup of approved controls, authorized excavation or placement, monitoring and compliance sampling as required, field-change review, and demobilization/site restoration. Turbidity-control requirements depend on the permit, water conditions and applicable criteria; do not substitute a generic numerical limit. Where controls may be ineffective in strong currents or waves, the construction plan must identify a feasible response and escalation procedure.

Submittals should be able to demonstrate where material is removed, transported and placed, what site conditions could halt or modify work, and how the contractor records observations. If a vessel or access route changes, the engineer must assess whether it changes the permitted footprint or effects before execution. The field staff need a current conditions matrix, not only a lengthy permit file kept at the office.

MODULE 4 | 45 MINUTES

ERP, sovereign submerged lands, and aquatic-preserve coordination

Regulatory authority and property authority are not the same thing

Florida's Environmental Resource Permitting program under Part IV of Chapter 373 and Chapter 62-330 regulates specified construction, alteration, operation, maintenance, repair, abandonment, and removal activities affecting stormwater systems, wetlands, and other surface waters. The exact permitting agency may be DEP, a water management district, or a delegated local program depending on project type and location. Statewide rules provide criteria, permit types, exemptions, general permits, application procedures, and conditions for issuance. [8,9]

Sovereign submerged lands review asks a different question: may the applicant use state-owned land held in trust for the public? DEP explains that tidal lands waterward of mean high water and navigable fresh-water lands waterward of ordinary high water can be sovereign lands, subject to title history and other facts. For a project on state-owned submerged land, the applicant may need both regulatory approval and proprietary authorization under Chapter 253 and Chapter 18-21. [7]

The linkage rule in Rule 18-21.00401 connects proprietary and regulatory review so incompatible outcomes are avoided. DEP notes that the same application can support both reviews and that the timelines are linked. Engineers should not describe an ERP as granting a submerged-lands lease, easement, or ownership interest. Likewise, a proprietary authorization does not replace environmental-resource criteria. [7]

Identify the needed proprietary instrument early

The appropriate proprietary authorization depends on the activity and rule criteria. Some activities may qualify for consent by rule or other streamlined treatment; others require written consent, easement, lease, or another instrument. The engineering team does not need to practice real-property law, but it must recognize when a project depends on state land and make the required authorization part of the project schedule. A design that cannot qualify for the necessary proprietary use is not saved by meeting hydraulic or structural criteria.

For waterfront projects, confirm upland ownership, riparian relationship, project footprint on state-owned lands, public-access or navigation effects, and any existing lease/easement. For modifications to an existing marina or dock, compare the proposed footprint and use with the existing proprietary instrument rather than assuming the prior instrument automatically expands. If ownership is uncertain, request the state lands determination early enough to influence design.

Aquatic preserves add resource-specific constraints

Activities in Florida aquatic preserves can require additional proprietary review under Chapter 258 and Rules 18-18 or 18-20. DEP's Applicant's Handbook materials state that activities in aquatic preserves require written authorization under the applicable preserve rules before work begins. The engineer should therefore include aquatic-preserve status in the permit-screening map and design alternatives to avoid or minimize impacts to protected resources. [7,8]

ERP application quality: reasonable assurance is supported by evidence

An ERP application should connect design data to issuance criteria. Depending on the project, evidence may address wetland/surface-water impacts, stormwater quantity and quality, secondary impacts, navigation, public safety, erosion and sediment control, construction turbidity, threatened or endangered species coordination, and mitigation. Avoidance and minimization should be documented as design decisions rather than asserted as conclusions. If a resource boundary moved after a new survey or field delineation, update the impact table and plans together.

The engineer should also distinguish the "design footprint" from the "maximum permit footprint." A contractor may need working room, temporary access, spud locations, dewatering, or staging beyond the permanent structure. If those temporary activities affect regulated resources, include them in the permit analysis. Omitting realistic temporary work from the application can cause field pressure for unauthorized impacts later.

Mitigation is not a license to avoid alternatives analysis

Where unavoidable adverse impacts remain, mitigation may be required. But a mitigation concept should follow, not replace, a defensible avoidance-and-minimization analysis. The permit record should show why the selected alternative is practicable and how impacts were reduced. If mitigation is proposed through credits or another mechanism, confirm availability and timing before the permit schedule depends on it. A conceptual promise to "buy credits later" is weak project control if the correct service area, credit type, or quantity is uncertain.

Field exercise 4 — Regulatory versus proprietary gap

A project team receives technical comments indicating that its ERP design appears approvable, but the state-land review identifies that the proposed dock footprint exceeds the area that can be authorized under the assumed proprietary pathway. The 90-percent design is already complete. Write a decision memo with three alternatives: reduce/relocate the footprint, pursue a different proprietary instrument if legally available, or redesign the use. Identify which design documents, schedule assumptions, and agency conversations must be reopened. Explain why "the ERP is almost approved" does not resolve the proprietary issue.

Linked state permit and sovereign-submerged-lands authorization: two decisions

For Florida sovereign submerged lands, the state acts in two different capacities: as environmental regulator and as proprietor of state-owned lands. An activity can be environmentally acceptable under an ERP or JCP yet require a distinct proprietary authorization, such as consent, easement or lease, depending on location and use. DEP describes a linkage rule under Chapter 18-21 that coordinates review of the two decisions. Linked processing is not a merger of legal purposes and is not permission to occupy state-owned property without the required instrument.

An engineer can support the proprietary screening with a controlled footprint and use description: type and dimensions of the improvement, occupancy and access, riparian or adjoining upland relationship, area of potential preemption, navigation clearance, resource conditions, and maintenance. Ownership and riparian

rights require appropriate title and surveying input; an engineer should not infer that an upland owner owns the tidal bottom or that a regulatory permit conveys property rights.

Projects involving a state aquatic preserve may require additional review under applicable statutory and rule criteria. For a complex waterfront development, keep a separate state-authorizations checklist, then reconcile it to the common permit basis and federal screen. If the project scope changes, update both regulatory effect quantities and the state-land use geometry. DEP's official Sovereign Submerged Lands guidance supplies the authoritative starting point for the linkage and instrument concepts.

Decision track	Core purpose	Engineering deliverable
ERP/JCP regulatory	Water/resource and coastal effects	Impact exhibits and design basis
SSL proprietary	Use of state-owned submerged land	Occupation geometry and use description
Federal Section 10/404/408	Distinct federal authorities	Separate jurisdiction and project-impact screen

Avoidance and minimization: quantify the actual design choice

An alternatives table should distinguish the initial concept from the footprint being submitted. Suppose the first pier-abutment design occupies 1,200 square feet of an affected area and a revised span reduces that occupied area to 700 square feet. The arithmetic reduction is 500 square feet, or about 41.7 percent of the original footprint. This does not establish the reduction in ecological effect is also 41.7 percent. Habitat condition, shading, construction access, hydrologic connection and remaining cumulative effects can matter more than area alone.

Each alternative should carry a drawing ID, dimensions, date, resource description and a note indicating whether the reduction is based on a measured footprint or an assumed layout. The preferred design should be followed through the dredge-and-fill quantity tables, resource plans, proprietary preemption area, schedule and construction specifications. A permit narrative claiming avoidance without updated plans creates more uncertainty than it resolves.

Mitigation, when required, follows a defensible effort to avoid and minimize impacts. The specific mitigation instrument and performance standard depend on the applicable state and federal criteria. Engineers can coordinate design feasibility, quantities and construction controls, but biological resource assessment and legal authorization must be assigned to appropriately qualified professionals and agencies.

Hypothetical pier option	Affected footprint	Observation
Initial concept	1,200 sq ft	Screen resource effects
Revised longer span	700 sq ft	500 sq ft less plan area
Arithmetic reduction	41.7%	Not an ecological-effect percentage

Waterfront title, public access, and navigation: avoid category errors

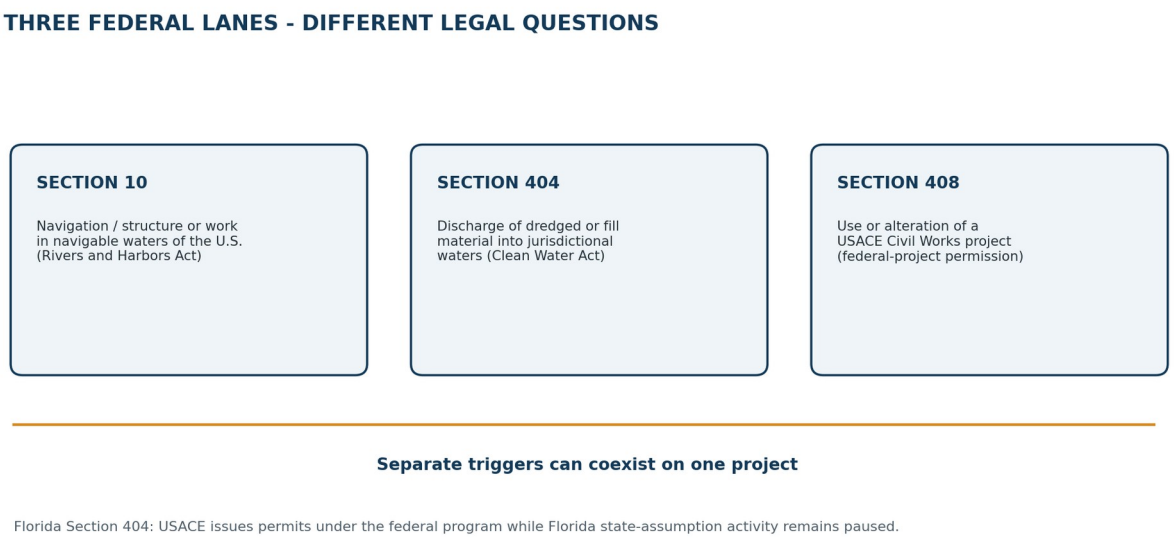
A riparian or adjoining upland owner may have important rights and responsibilities, but waterfront ownership is not equivalent to ownership of the submerged bottom or a grant of navigation authority. Survey, title, public-access easements, local approvals, sovereign-submerged-lands use instruments and federal navigation concerns must be screened as separate sources. The engineer's drawing can show the physical relationships without asserting a legal conclusion outside the surveyor's or attorney's role.

The permit application should identify the intended operation, including public versus private access, vessel maneuvering, pier or dock layout, maintenance dredging and any area effectively preempted from general use. Changes to mooring or platform dimensions can alter state proprietary review, resource impacts and navigation even when they are small relative to the overall parcel. A permit strategy that depends on assumed upland ownership should be held until the correct property evidence is assembled.

A well-written project memo assigns each boundary to its qualified source: licensed survey or ownership analysis for property, DEP or district criteria for state land and ERP, USACE for federal jurisdiction and navigation, and applicable local authorities for access or building approvals. The engineering team can manage those inputs together without treating them as one interchangeable clearance.

MODULE 5 | 40 MINUTES

Federal coordination: Sections 10, 404, 408, and related reviews



Independent federal statutory triggers can coexist.

Three federal authorities solve three different problems

Section 10 of the Rivers and Harbors Act addresses work in, over, or under navigable waters of the United States, or work affecting their course, location, condition, or capacity. Common examples include piers, wharves, bulkheads, marinas, dredging, crossings, and related structures. Section 404 of the Clean Water Act addresses discharge of dredged or fill material into waters of the United States. A project can trigger both provisions, one, or neither depending on jurisdiction and activity. [10–12]

Section 408 is separate. Under 33 U.S.C. 408, USACE may grant permission for another party to alter, occupy, or use a USACE Civil Works project when the change will not be injurious to the public interest or impair the usefulness of the federal work. Jacksonville District guidance makes clear that Section 408 is not itself a permit action handled by the Regulatory Program, although it may need to be coordinated with a regulatory permit. Work near a federal channel should therefore be screened for actual alteration, occupation, or use of the federal project—not merely proximity. [13,14]

Florida Section 404 status in 2026

Florida's State 404 Program cannot be treated as the current Section 404 permitting path. A federal district court vacated EPA's approval of Florida's assumed program on February 15, 2024. EPA's current Section 404 assumption page states that the U.S. Army Corps of Engineers is the permitting authority for all discharges of dredged or fill material into waters of the United States in Florida. The D.C. Circuit's 2026 opinion left the vacatur in place. For project work in 2026, the engineer should therefore plan federal Section 404 coordination with USACE and verify current status at the time of application. [11,15]

> Current-status rule; Do not place "State 404" in the course subtitle or treat DEP as the present federal Section 404 permit issuer. Preserve it only as regulatory history and a dated status note. Before applying permitting guidance to a project, recheck EPA, USACE, and DEP status.

Nationwide permits can streamline authorization, but conditions matter

USACE reissued nationwide permits for 2026. Nationwide permits authorize categories of activities that meet federal terms, limits, general conditions, regional conditions, and any required preconstruction-notification or verification requirements. An engineer should not assume that fitting a one-line nationwide-permit description completes the analysis. Check activity-specific limits, regional conditions, threatened/endangered species and historic-property processes, Section 401 requirements, navigation effects, and whether Section 408 is also needed. [12]

For a project likely to use a nationwide permit, create a verification checklist that lists the precise permit number, activity thresholds, impact acreage or linear limits, special aquatic-site issues, regional conditions, preconstruction-notification triggers, and other approvals. If the design is close to a threshold, quantify uncertainty rather than designing exactly to the line. A small survey or impact change during construction can otherwise push the project outside the authorization relied on during design.

Federal environmental review is a coordination track, not a last-minute attachment

A federal permit or Section 408 action can bring other federal reviews into the schedule, including Endangered Species Act consultation and National Historic Preservation Act considerations, depending on the action and resources. In Florida coastal waters, protected species and essential habitat can materially affect construction methods, windows, monitoring, and agency consultation. The engineer's role is to provide accurate project description, limits, methods, timing, and avoidance/minimization commitments; resource agencies and permitting agencies make the legal determinations.

Keep the state and federal narratives synchronized. A federal application that describes hydraulic dredging while the state application describes mechanical dredging can create avoidable questions because construction methods drive turbidity, access, staging, and species effects. When an RAI response changes the project description, update the permit-basis matrix and identify every parallel application or consultation that must be revised.

Section 408: federal-project geometry must be controlled

For work near a federal navigation channel, levee, coastal structure, or other Civil Works project, obtain the controlling federal project drawings, easement or real-estate information where relevant, and current Section 408 coordination requirements. Do not infer the federal project footprint from the visible channel or shoreline. Maintenance dredging within a federal-project channel can raise different Section 408 issues from dredging outside the authorized dimensions; Jacksonville District guidance notes that work exceeding federal design depth or width or disposing material in a federal project may require case-specific Section 408 evaluation. [13,14]

Field exercise 5 — Federal authorization screen

A marina expansion includes a fixed pier in a navigable tidal water, 0.08 acre of fill in jurisdictional wetlands for an access abutment, and a utility crossing through a USACE navigation-project easement. Create three rows labeled Section 10, Section 404, and Section 408. For each, state the activity that triggers review, the USACE office/process you would expect to coordinate with, and one design change that could alter that conclusion. Then list the state approvals that still need to be screened separately.

The 2026 federal nationwide permit workflow: verify conditions before naming the permit

The U.S. Army Corps of Engineers' 2026 nationwide permits became effective March 15, 2026 and generally expire March 15, 2031. A nationwide permit (NWP) does not bypass other legal requirements or make all activities in a named category exempt from review. Eligibility depends on the actual activity, size and effects, NWP-specific terms, general conditions, regional conditions and applicable programmatic reviews. Some

projects require preconstruction notification (PCN) and district verification; other activities may require an individual permit instead.

The engineer should establish the applicable Corps district, study the entire 2026 NWP language, verify any Florida-specific regional conditions, identify certification and coastal-zone-consistency requirements, and confirm whether listed-species or historic-property concerns require additional coordination. The appropriate timing and form of notice depends on the selected NWP. Never copy a threshold from another district or a prior NWP cycle and assume it remains current.

Maintain an NWP decision record with activity description, assumed category, footprint and impacts, every applicable condition, required PCN or coordination, reviewing district and correspondence record. Section 408 screening remains separate where a federal Civil Works project is affected. An initial NWP preference is a hypothesis about an authorization route; final authorization is governed by the applicable terms and agency decision.

Screening item	Minimum documented check
Authorization year	2026 NWP text and current regional conditions
Eligibility	Activity and affected aquatic resources
Notification	Whether PCN or district verification is required
Other reviews	401, coastal zone, species, historic properties as applicable
Separate Section 408	Federal Civil Works effect and approval status

Section 401, coastal-zone consistency and consultation are not implied approvals

For a federal authorization, Clean Water Act Section 401 water-quality certification and Coastal Zone Management Act consistency may be separate considerations, depending on the activity and regulatory mechanism. Engineering teams should identify which state or federal office is responsible, the status of any general certification or objection, and what project-specific conditions apply. An issued ERP is not automatically proof that all federal-law certification, consistency and consultation requirements are met.

Environmental review can also involve threatened or endangered species, essential fish habitat where applicable, and historic or cultural resources. The design team should supply a consistent footprint, construction dates and methodology so that technical specialists and reviewing agencies can evaluate effects. An apparent "no impact" on an engineering plot is not a substitute for the authorized biological or cultural determination. Schedule the corresponding studies before the geometry is frozen when possible.

The permit matrix should separately record applications submitted, information requested, consultation initiated, agency decisions and any conditions. This prevents a common failure: a project team reads "federal permit pending" as a single check box even though one unresolved resource issue may control the entire construction schedule. Use the latest USACE and state guidance for the specific site; this training manual is not itself a jurisdictional determination.

Section 408: align the modification request with the actual federal project

Section 408 evaluates certain proposed alterations, occupations or uses of federal Civil Works projects. Its decision is separate from authorizations under Section 10 or 404 and requires attention to whether the project impairs usefulness or is injurious to the public interest under the governing review. Before the first agency meeting, obtain current as-built or controlled project information and identify the proposed work relative to federal features, project rights-of-way, access, dredging limits and operations.

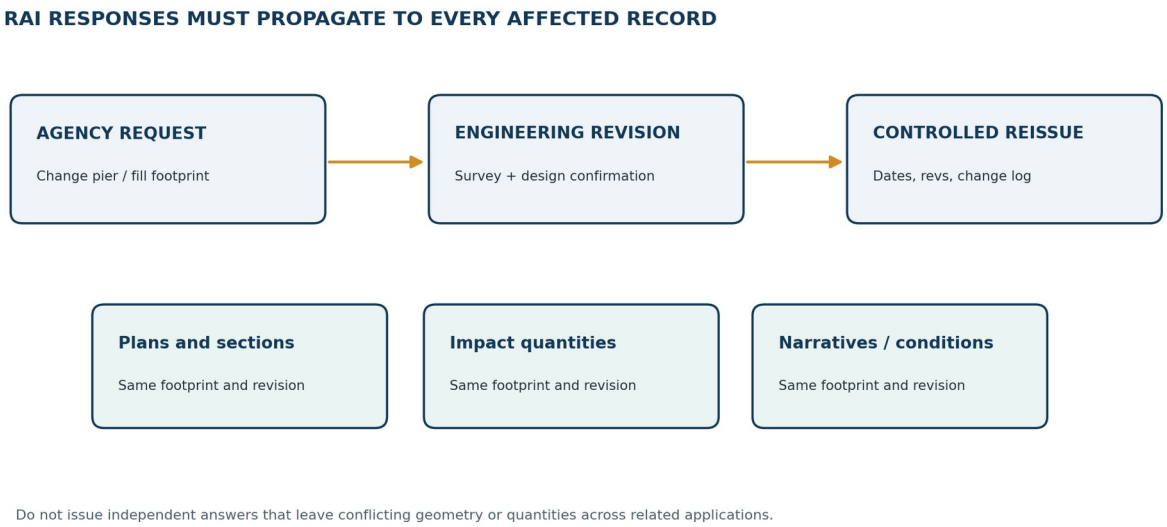
The engineer should provide a clear change description: original federal-project function; affected structural or navigation element; the proposed permanent and temporary work; design loads and ground disturbance; likely construction interference; and restoration, monitoring or maintenance needs. Do not assume the lack of a structure on a parcel map means a federal easement or maintained channel does not exist. The authority to occupy land and the authority to alter a Civil Works project are separate questions.

A realistic schedule begins Section 408 screening before final design. If the project is modified in response to a state RAI, revise the Section 408 request accordingly, especially if the crossing or work location shifts.

Carry this dependency into contract bid documents, with hold points for unresolved authorization and a procedure for contractor deviations. Field crews should not rely on a permit issued under another statute as evidence of Section 408 permission.

MODULE 6 | 30 MINUTES

Integrated Harbor Point case, permit-basis control, and future-rule changes



Controlled agency responses should reconcile every dependent project artifact.

Fictional case: Harbor Point Resilience and Public Access Project

Harbor Point is a fictional municipal waterfront site on a natural sandy Atlantic inlet shoreline. The city proposes six coordinated improvements: (1) replacement of a storm-damaged public building platform partially seaward of the CCCL but landward of mean high water; (2) a new dune crossover; (3) replacement and limited extension of a public fishing pier across mean high water; (4) rehabilitation of an existing shoreline protection segment; (5) maintenance dredging of an inlet-side access channel with placement of compatible sandy material on an adjacent eroding beach; and (6) a temporary construction trestle and staging area. The dredging is near a federal navigation project, but the preliminary plan does not yet show the federal project limits.

The wrong approach is to pick one “coastal permit” and force all six components into it. The correct approach is to break the project into activities, map the controlling boundaries, identify shared data, and then coordinate the application strategy. The building platform and dune crossover require CCCL screening. The pier, shoreline work, dredging, and beach placement require JCP/ERP/sovereign-land screening based on exact geometry and coastal effects. The pier and dredging require federal Section 10/404 screening as applicable. Proximity to the federal navigation project requires Section 408 screening once the federal project footprint is confirmed. Temporary work must be included because it may create additional regulated impacts.

Step 1 — Create the controlled base map

The city authorizes a PSM to establish property and relevant shoreline/boundary information and to reconcile the vertical datum. The engineering team compiles the current CCCL, topography, dune features, mean high-water information, wetland/surface-water limits, existing submerged-land authorization records, hydrographic survey, federal channel/project mapping, utilities, access, and resource surveys. Each dataset is placed in a register with date, datum, source, responsible

professional, expected accuracy, and expiration/refresh trigger. The permit drawings use one controlled coordinate system and clearly label any information that remains approximate pending agency or survey confirmation.

Step 2 — Separate common data from program-specific evidence

All reviewing programs need a consistent project description, but not all need the same evidence. The CCCL review needs beach/dune siting and design information. The JCP review needs coastal-process and beach/inlet evidence, dredge/placement details, ERP information, and sovereign-land use. The federal review needs the precise activity in navigable waters or waters of the United States, impact quantities, construction methods, alternatives and resource information. Section 408 needs the relationship to the federal Civil Works project and evidence that the requested alteration or use does not impair the federal project or injure the public interest. A good permit basis has shared geometry with separate technical modules.

Step 3 — Run a pre-application meeting with decisions, not presentations

The meeting package is limited to ten pages: a one-page project summary; permit-screening map; current plan and section; activity/authorization matrix; dredge/placement concept; temporary-work plan; resource map; alternatives summary; federal-project overlay; and a question log. The team asks DEP whether the proposed components should be processed in one JCP package or separated, confirms CCCL coordination, asks about sovereign-land instruments, confirms the lead office for dredging, and requests guidance on anticipated survey and resource-data age. USACE is asked about Section 10/404 pathway, 2026 nationwide-permit applicability if relevant, and whether Section 408 coordination is required. Meeting notes record what remains nonbinding or unresolved.

Step 4 — Control RAIs like design changes

Suppose DEP asks the city to narrow the beach-fill template, revise the pier alignment to avoid a resource area, and clarify whether the shoreline structure is replacement-in-kind. USACE requests additional information on the access-channel dredge limits and federal-project relationship. The team does not respond with disconnected letters. It updates the controlled base map, impact table, quantities, design narrative, and authorization matrix; then prepares a response crosswalk showing exactly where each answer appears. If a response changes another agency's application, that parallel record is updated immediately.

Step 5 — Establish permit hold points before construction

The construction specifications include a permit matrix and hold points: preconstruction meeting, survey stakeout, environmental exclusion areas, dredge-template verification, turbidity/monitoring setup if required, species-protection requirements, approval before changes to temporary work, foundation/location certifications when required, and final/as-built documentation. The contractor is instructed that field efficiency does not authorize work outside permitted limits. The resident engineer or construction observer maintains a permit-condition checklist tied to daily reports and photographs.

Step 6 — Close out the project and preserve the permit basis

At closeout, the city retains final surveys, certifications, monitoring results, disposal/placement records, material testing, permit correspondence, approved modifications, photographs, and final drawings. Future maintenance staff can then distinguish what was designed, what was permitted, what was actually built, and what remains authorized. This matters because a later "maintenance" project should begin with the verified authorization record rather than institutional memory.

Future rule changes: nature-based coastal permitting

Florida enacted Section 380.0938 in 2026. By January 1, 2027, DEP must develop design guidelines/standards for nature-based coastal resiliency and initiate rulemaking for a clear statewide permitting process under Section 373.4131. Separately, Rule 62-330.604, a proposed general permit for living shorelines, remained not adopted in the Florida Administrative Code when this manuscript was prepared. The course should therefore teach the pending change as a watch item, not as a current permit pathway. [16,17]

Before applying a new general permit or nature-based shoreline standard, check the final adopted text, effective date and any local or federal coauthorizations. As of November 15, 2026, Rule 62-330.604 remained proposed. A further proposed-rule notice published November 2, 2026, allowed comments through November 23; it was not yet a current general authorization.

Integrated decision memo exercise

Prepare a two-page permit strategy for Harbor Point. Page one should contain an activity-by-authorization matrix for the six project components. Page two should identify the ten highest-risk unknowns that must be resolved before 60-percent design, who owns each answer, and what design decision it can change. At least one item must address survey/datum control, one sovereign-land issue, one federal-project/Section 408 issue, one resource/environmental window issue, one temporary-work issue, and one regulatory-currency check.

> Course takeaway; The engineer's value in coastal permitting is not memorizing application names. It is maintaining a coherent, current permit basis across geometry, design, natural resources, ownership, federal/state jurisdiction, construction methods, and change control.

A critical-path permit schedule: design, consultation, and contractor procurement

Permit schedules are usually networks, not simple agency turnaround estimates. Survey and title verification may precede credible sovereign-land screening; field-resource studies may be seasonally constrained; alternatives can change the footprint before a JCP is complete; and a federal consultation may hold up work after the state application appears mature. Build a predecessor map for all essential studies, agency meetings, completeness submissions, responses to requests for additional information and issuance conditions. Date each assumption and include a contingency for resubmittal rather than attributing a single speculative number of days to all reviews.

A contractor's means and methods can alter navigation, temporary fill, staging, water-quality controls and resource impacts. Before procurement, identify which decisions have been approved, which are bounded alternatives, and which require agency review. Bid documents should provide a common permitted basis, responsibility for permits and monitoring, and a formal procedure for proposed changes. An owner should not accept a low bid built on an unpermitted temporary access plan.

At the construction handoff, produce a one-page hold-point matrix: authorization reference and condition, drawing ID, the field activity it governs, verification responsibility, required record and escalation contact. Train inspection and construction staff on the difference between permit compliance and engineering acceptance. Both need evidence; neither can be replaced by the other.

Predecessor stage	Deliverable	Proceed only when
Survey/title and resource mapping	Controlled base map	Uncertainty and scope are documented
Design and regulatory screening	Activity/authorization matrix	Permit strategy aligned with footprint
Application and coordination	Complete current agency package	Required reviews underway
Preconstruction release	Conditions and hold-point matrix	Necessary authorizations issued
Closeout	As-built, testing and monitoring record	Outstanding conditions tracked

A quantitative request-for-information change log

A request for additional information (RAI) may look like a written response but often changes the permit basis. Suppose the state reviewer requires reducing a 1,200-square-foot shoreline structure to 900 square feet while USACE requests that temporary matting move 15 feet away from a resource polygon. The engineering response must revise the plan, associated sections, area calculations, staging and resource impacts. Answering each agency with a different drawing revision creates two incompatible versions of the same physical project.

Maintain a delta ledger that shows the old and new quantities with units, agency issue ID, responsible designer, cross-affected applications, and explicit release date. Record whether the difference changes the CCCL, JCP, ERP, sovereign-submerged-land, Section 10/404 or Section 408 basis. Where a number has not been independently verified, identify it as pending, not final. Construction procurement should use only the controlled current set.

Do not characterize every dimensional change as minor. A two-foot shift could cross a survey boundary, change affected habitat, enlarge the permitted use area or intrude on a federal-project limit. Determine materiality against issued conditions and agency rules rather than the numerical distance alone. Where required, obtain the written authorization or amendment before work. Record the final survey and deviation disposition at closeout.

Change-control field	Example entry	Required reconciliation
Agency comment	Reduce shoreline footprint	Link to plan, resource map, quantity
Old / new footprint	1,200 / 900 sq ft	-300 sq ft, 25% decrease
Temporary work revision	Matting shift 15 ft	Recheck access, staging, habitat and federal overlap
Current issue set	Plan Revision D	All applications use the same controlled geometry

Permit conditions as field hold points and measurable records

A permit issued without a usable field implementation plan is not a completed compliance strategy. Translate each operative condition into the activity controlled, the release gate, required observation, person who verifies it and the record to be delivered. Conditions may relate to preconstruction surveys, environmental buffers, approved method envelopes, seasonal restrictions, monitoring, reporting, changes to dredge geometry, material placement, or final certification. Never assume all conditions apply to every activity; the issued permit and current agency instructions control.

A practical inspector's matrix separates engineering acceptance from environmental compliance. An installed pile can satisfy structural tolerance while being outside the authorized position; a turbidity control can be deployed as shown but fail to meet an actual performance requirement. Each issue requires its own responsible review and documentation. The construction superintendent should know what triggers an immediate hold, which professional can evaluate a deviation, and when written agency direction is required.

After substantial completion, keep a closeout register covering actual constructed footprint, relevant as-built survey, removal of temporary works, restored habitat or access, tests and professional certifications, required monitoring data, unresolved agency conditions, and any transfer or long-term maintenance obligation. A project may be physically finished before all permit commitments have been discharged.

Condition type	Field verification	Record
Location or footprint	Stakeout and as-built survey	Survey date, datum, drawing revision
Resource exclusion area	Boundary marking/inspection	Photographs and field log
Monitoring commitment	Required method and frequency	Results and submittal record
Temporary work restoration	Removal/condition verification	Closeout evidence
Permit modification	Written agency disposition if necessary	Approved revised drawing

Regulatory completeness versus technical maturity

A team sometimes confuses an accepted-for-review application with permission to build. A completeness determination indicates that the reviewing authority has the application information it currently needs to conduct review; it is not a finding that every substantive criterion has been met. Similarly, a preliminary agency meeting can identify likely issues without providing an enforceable permit authorization. Maintain separate statuses in the project control system: screening, preapplication, filed, incomplete, under technical review, pending consultation, issued with conditions, modified, closed or expired as appropriate.

Every status entry should include an authority, tracking identifier, date, correspondence link and the next action. Avoid using one traffic-light indicator to collapse the CCCL, JCP, proprietary and federal records. A conditional state permit may be issued while federal review remains unresolved, and an authorized federal activity may still require state property permissions. The project schedule should show the predecessor dependencies explicitly.

The owner-facing report is concise: what is authorized, which drawings define it, what physical work remains prohibited, what studies or consultations are pending, and when the strategy must be revisited. That report is a stronger management tool than claiming the project is "85 percent permitted" without identifying the critical missing authorization.

Practical coastal permit-basis checklist

- Project purpose and alternatives are defined before the application pathway is locked.
- Current CCCL/50-foot-setback status is documented from official sources.
- Mean high-water/ordinary high-water and other survey-controlled lines come from qualified survey work, with datum and date stated.
- Wetlands/surface waters, aquatic preserves, and other resource constraints are mapped with responsible-source documentation.
- Sovereign submerged land status and the likely proprietary authorization path are screened separately from regulatory permits.
- Every permanent and temporary project component appears on the permit-screening map.
- JCP criteria are tested from actual geometry and coastal-process effect—not from the project label.
- ERP lead agency/delegation is confirmed for the project location and activity.
- Federal Section 10 and Section 404 triggers are separately screened; current Florida Section 404 authority is verified.
- Federal Civil Works project limits are obtained before concluding whether Section 408 is required.
- Drawing sets, narratives, quantities, and resource-impact tables share one controlled design basis.
- Dredge prism, overdepth assumptions, bathymetry, sediment characterization, and placement/disposal destination are internally consistent.
- Agency pre-application notes identify unresolved issues and are not treated as binding permit decisions.
- RAI responses are managed through a crosswalk and change-control process that updates all affected applications.
- Permit conditions are converted into construction hold points, inspection records, and closeout deliverables.

Applied permit-screening lab: a controlled jurisdiction matrix

Use a fictional mixed-use waterfront project containing a dune crossover, pier, maintenance dredging, shoreline stabilization, temporary construction access and a force-main crossing adjacent to a federal navigation project. Identify each component by geometry and activity, not by the overall project name. The possible triggers shown below are screening prompts only; none is a permit determination. Site-specific surveys, current statutes, exemptions and agency coordination govern the final pathway.

COMPONENT	SCREENING QUESTIONS	MISSING RECORD OR DECISION
Dune crossover	Seaward of mapped CCCL? Beach/dune impacts?	CCCL map, survey and design elevation
Fishing pier	Sandy shoreline, MHW and sovereign lands? JCP? Section 10?	Surveyed footprint, state title and navigation limits
Maintenance dredging	JCP/ERP? Section 10 or 404? Dredge/fill and placement?	Bathymetry, sediment, impact quantities
Shoreline stabilization	CCCL/ERP/SSL? Does work overlap Civil Works features?	Resource boundaries, title, federal-project plan
Temporary trestle	Work, fill or occupation within regulated waters/project?	Contractor access/staging drawings
Force-main crossing	Section 10/404/408 interfaces? State-owned land?	Cross-sections, construction method, easement

A CCCL is a coastal-construction regulatory jurisdiction line, not a universal no-build line. Mean high water is a separate survey and ownership-related boundary. A Joint Coastal Permit may be appropriate when the statutory coastal setting, sovereign submerged lands and material effect on coastal processes align; a pier is not automatically a JCP merely because it reaches water. Environmental Resource Permitting addresses resource and water-management criteria, while state-owned submerged-land authorizations address the State as landowner. Federal Section 10, Clean Water Act Section 404 and Section 408 screen separate authorities, and more than one can apply.

Retain a controlled base map showing horizontal and vertical datums, CCCL, shoreline and title boundaries, MHW where applicable, wetlands and other regulated waters, easements, federal project limits, permanent work, temporary work and a reconciled quantity table. Note the date, custodian and source for each layer. Where one boundary is uncertain, mark the conditional pathway rather than silently selecting the most convenient permit.

> Decision exercise: Before drafting applications, identify three agencies or programs that may need early consultation, one survey question that must be answered, one temporary-work assumption that could change project impacts and the person accountable for closing each open item. A preliminary permit map is a controlled engineering input, not a substitute for written agency determinations.

Applied permitting lab: changes after application

Suppose an otherwise permitted pier must move two feet seaward after construction staking because the contractor identifies a clearance conflict. An apparently minor dimensional shift could change the work footprint, impacts, property occupancy, navigation clearance, resource effects or permit-drawing basis. The engineer should not use a fixed dimensional threshold as an automatic permission to build. Hold the affected work, confirm the as-staked geometry and datum, and evaluate the current permit conditions and modification procedures with the responsible permit holders and agencies before authorizing the deviation.

CONTROLLED RECORD	WHAT MUST BE RECONCILED	RELEASE GATE
Survey and geometry	Original vs. proposed coordinates, datums and cross-sections	Survey/design verification
Impacts and quantities	Footprint, fill, dredge, habitat, construction access	Environmental technical signoff
Permit-basis matrix	CCCL/JCP/ERP/SSL/10/404/408 and agency conditions	Permit-holder/agency disposition

CONTROLLED RECORD	WHAT MUST BE RECONCILED	RELEASE GATE
Contract set and RAI log	Same drawing revision, quantities and commitments in each package	Coordinated revision issue
Construction/closeout	Field observation, acceptance, certifications and record drawings	Final inspection/document retention

A multi-agency request for additional information may require the same baseline survey and impact table to change everywhere. Independent narrative replies that leave conflicting footprints across different applications create technical and compliance risk. One person should own the controlled revision register and ensure that each permit application, contractor drawing, environmental exhibit, field plan and final record points to the same approved geometry.

Florida regulatory status is date-dependent. As of November 15, 2026, Florida's assumed federal Section 404 program remained paused and USACE was the relevant permit issuer for activities subject to federal Section 404. The proposed Florida living-shoreline general permit (Rule 62-330.604) was still not an adopted general authorization. Confirm the then-current official rules, notices and written agency direction for each new project. A regulatory change may alter a pathway even when the structure itself has not changed.

> Field exercise: Build a five-row change-control register from the hypothetical pier move. Include the affected drawing, proposed revision, open technical question, governing agency, written approval dependency and return-to-work criterion. Test the register against a temporary trestle added during construction to ensure nonpermanent work is screened too.

Currency and coordinated review note

As of November 15, 2026, Rule 62-330.604 (living-shoreline general permit) was still not adopted. DEP published a further proposed-rule notice on November 2, 2026, with comments through November 23. It must not be represented as an effective blanket authorization. The July 7, 2026 amendments to Chapter 62B-33 are effective; later ERP rule changes scheduled for November 19, 2026, were not yet effective as of this study-guide date. Project teams must verify current law and agency advice before filing or designing to a regulatory threshold.

Official rule status and updates: F.A.C. 62-330.604 | Proposed rule notice of Nov. 2, 2026 | F.A.C. 62B-33

Expanded applied laboratory: permit-basis reconciliation for a modified waterfront project

A fictional public shoreline project combines a dune crossover, pier, minor fill at an abutment, maintenance dredging, temporary vessel access and a nature-based shoreline concept. The initial screen marks the CCCL and MHW from different authoritative sources, records a possible sovereign-submerged-lands occupation, and flags federal Section 10 and 404 questions for the Corps. A nearby federal navigation feature produces a separate Section 408 screen. The engineer should not start by selecting a single master permit because several tracks may remain independent.

For the first design iteration, an abutment affects 1,200 square feet and preliminary dredging is shown as a simple prism of 889 cubic yards. After agency and constructability review, the abutment footprint changes to 700 square feet and the design dredge depth is reduced from 3.0 to 2.5 feet on the same nominal 200-by-40-foot footprint. The new arithmetic dredge screen is approximately 741 cubic yards before side slopes and other approved allowances. Recompute impacts, staging and any proprietary occupation as separate quantities; an arithmetic reduction does not substitute for a revised resource assessment.

The project manager then prepares a controlled register listing who verifies each state and federal pathway, what drawing or source establishes the trigger, and the conditions for construction release. The contractor proposes moving the pier two feet seaward because of a field clash. The correct engineering workflow is to verify survey/control, compare with permitted plans and impacts, and obtain any required written agency

authorization before executing the change. All revisions carry through to record drawings and permit-condition closure.

Item	Earlier screen	Revised screen	Engineering qualification
Abutment area	1,200 sq ft	700 sq ft	Resource effect still requires analysis
Design dredge	889 cu yd	741 cu yd	Assumes fixed prism; field geometry controls
Temporary access	Shown on old plans	Recheck revised location	Not automatically exempt
Pier alignment	Issued geometry	2-ft suggested shift	Needs permit-condition and survey review

A date-controlled regulatory currency ledger

Current statutory and agency rules should be reviewed on the date a project relies on them. As of November 15, 2026, federal Section 404 permit issuance in Florida remains with USACE under the then-applicable court order; Florida DEP's assumed State 404 Program is paused. The 2026 USACE nationwide permits became effective March 15, 2026. Chapter 380.0938, Florida Statutes, calls for DEP nature-based design guidance and initiation of rulemaking by January 1, 2027; it does not itself automatically issue a project permit.

Florida's November 2, 2026 proposed-rule notice addresses proposed Rules 62-330.601 (inshore reefs) and 62-330.604 (living shorelines) with a comment period through November 23, 2026. These are proposals as of the manual's currency date, not an adopted blanket authorization. A design team may track the proposal as a future pathway but must continue to use the rules actually effective for its submission. The ledger should record the source URL, effective or proposal date, last check, applicability and a recheck trigger before filing and construction.

In contrast, the DEP CCCL Form 73-100 webpage identifies an application revision effective July 14, 2026. This is a concrete submittal-control item: use the latest issued form rather than relying on screenshots from older guidance. The responsible engineer should document the date of the form check and preserve the applied rule text and relevant permits. Each project has unique jurisdiction and conditions; administrative status may change after this course's date.

Authority or item	Status on 15 Nov 2026	Recheck trigger
Florida State 404 assumption	Paused; USACE processing Section 404	Before federal filing
USACE 2026 NWPs	Effective 15 Mar 2026 to 15 Mar 2031	NWP selection and district conditions
F.S. 380.0938	Guidelines/rulemaking directive	Agency rules updated
F.A.C. 62-330.601 / .604	Proposed 2 Nov 2026; not adopted	Before invoking general permit
CCCL Form 73-100	DEP revision effective 14 Jul 2026	Every new CCCL application

Closing engineering synthesis for permit coordination

A controlled coastal permit basis contains six mutually consistent views of the same project: (1) the purpose and alternatives; (2) an authoritative survey and resource map; (3) drawings and quantities, including temporary works; (4) a jurisdiction and agency decision matrix; (5) an application-and-condition change history; and (6) an inspection, monitoring and closeout record. The engineer's task is to make discrepancies between these views visible before they become unauthorized construction.

A complete technical recommendation should distinguish issued authority from screening opinion. It should identify which site-specific facts could change the selected path - a revised mean-high-water survey, a newly recognized resource polygon, a change in dredge footprint, Section 408 project limits, or adoption of a proposed nature-based rule. Where data are uncertain, recommend the next survey, study or agency decision rather than assuring the owner that a single application covers all activities.

The resulting workflow can be reused for future municipal work. At each major design revision, compare drawings, resource impacts, property authorizations and federal coordination before issuing the next controlled set. At construction handoff, bring the conditions register to the field; at completion, retain the evidence needed to demonstrate what was actually built and what long-term obligations remain.

Additional official sources for the applied expansion

Florida DEP, CCCL Permit Application and revised Form 73-100: https://floridadep.gov/rcp/coastal-construction-control-line/forms/cccl-permit-application

Florida DEP, Sovereign Submerged Lands: Regulatory versus Proprietary Authority: https://floridadep.gov/water/submerged-lands-environmental-resources-coordination/content/sovereign-submerged-lands-ssl

USACE, Nationwide Permit Program and 2026 conditions: https://www.usace.army.mil/Missions/Civil-Works/Regulatory-Program-and-Permits/Nationwide-Permits/

Florida DEP, State 404 Program status: https://floridadep.gov/water/submerged-lands-environmental-resources-coordination/content/state-404-program

Florida Statutes 2026, Section 380.0938: https://www.flsenate.gov/Laws/Statutes/2026/380.0938

Florida Administrative Register, proposed Rules 62-330.601 and 62-330.604, November 2, 2026: https://flrules.org/Gateway/View_notice.asp?id=31540149

NOAA, VDatum elevation conversions: https://coast.noaa.gov/digitalcoast/tools/vdatum.html

Primary sources and regulatory references

Official source pages, forms, agency jurisdiction and incorporated standards may change. Confirm the effective version, published conditions and project-specific agency direction before using any regulatory pathway or criterion.

[1] Florida DEP — Coastal Construction Control Line Program and application guidance
https://floridadep.gov/rcp/coastal-construction-control-line
[2] Florida Administrative Code — Chapter 62B-33, Rules and Procedures for Coastal Construction and Excavation
https://flrules.org/gateway/ChapterHome.asp?Chapter=62B-33
[3] Florida Administrative Code — Rules 62B-33.005 and 62B-33.0051 (2026 amendments effective July 7, 2026)
https://flrules.org/gateway/RuleNo.asp?id=62B-33.005
[4] Florida DEP — Beaches, Inlets and Ports Program / Joint Coastal Permitting
https://floridadep.gov/rcp/beaches-inlets-ports
[5] Florida Administrative Code — Chapter 62B-49, Joint Coastal Permits and Concurrent Processing of Proprietary Authorizations
https://flrules.org/gateway/ChapterHome.asp?Chapter=62B-49
[6] Florida Statutes (2026) — §§ 161.041 and 161.055; § 373.427 concurrent permit review
https://www.flsenate.gov/Laws/Statutes/2026/161.041 ; https://www.flsenate.gov/Laws/Statutes/2026/161.055 ; https://www.flsenate.gov/Laws/Statutes/2026/373.427
[7] Florida DEP — Sovereign Submerged Lands: proprietary vs. regulatory authority / Chapter 18-21
https://floridadep.gov/water/submerged-lands-environmental-resources-coordination/content/sovereign-submerged-lands-ssl
[8] Florida DEP — Environmental Resource Permitting and Applicant's Handbook resources
https://floridadep.gov/water/submerged-lands-environmental-resources-coordination/content/environmental-resource-permitting
[9] Florida Statutes (2026) — §§ 373.413 and 373.4131, Environmental Resource Permitting
https://www.flsenate.gov/Laws/Statutes/2026/373.413 ; https://www.flsenate.gov/Laws/Statutes/2026/373.4131
[10] USACE — Regulatory program authorities, Section 10 and Section 404
https://www.usace.army.mil/Missions/Civil-Works/Regulatory-Program-and-Permits/
[11] U.S. EPA — Tribal and State Section 404 Assumption Efforts: current Florida status
https://www.epa.gov/cwa404g/tribal-and-state-section-404-assumption-efforts
[12] USACE — 2026 Nationwide Permits
https://www.saj.usace.army.mil/Media/News-Releases/Article/4374164/us-army-corps-of-engineers-announces-publication-of-2026-nationwide-permits/
[13] USACE Jacksonville District — Section 408
https://www.saj.usace.army.mil/408/
[14] USACE Jacksonville District — regulatory guidance/public notices addressing Section 408 near federal projects
https://www.saj.usace.army.mil/Missions/Regulatory/
[15] U.S. Court of Appeals for the D.C. Circuit — 2026 Florida Section 404 assumption decision, No. 24-5101
https://media.cadc.uscourts.gov/opinions/docs/2026/03/24-5101-2165874.pdf
[16] Florida Statutes (2026) — § 380.0938, Nature-based methods for improving coastal resiliency
https://www.flsenate.gov/Laws/Statutes/2026/380.0938
[17] Florida Administrative Rules — proposed Rule 62-330.604, General Permit for Living Shorelines (not adopted at manuscript date)
https://flrules.org/gateway/ruleNo.asp?id=62-330.604
[18] Florida DEP — Joint Application for Joint Coastal Permit, Form 73-500
https://floridadep.gov/rcp/beaches-inlets-ports/forms/joint-application-joint-coastal-permit

Field desk reference: release to coastal construction

Before field release, a team should possess one current project definition and distinct decisions for each applicable CCCL, JCP, ERP, sovereign-submerged-lands and federal authorization. The common base map should distinguish the CCCL, surveyed property and shoreline boundary, environmental resources and federal Civil Works features. Drawings, quantities, temporary methods and impact tables should all carry the same current revision and reference datum.

Translate each issued permit condition into a field hold point, named responsible person and verifiable record. A contractor's revised access route or small change in pier geometry can affect regulated resources and project boundaries; such changes require engineering assessment and, where applicable, written agency permission. At closeout, preserve as-built survey, monitoring, resource restoration, agency change disposition and open long-term conditions. Check effective rules before each new use.

Release check	Needed record	Not a substitute
Geometry	Controlled survey and permit plans	Unverified aerial overlay
State paths	Each applicable state and land authorization	Assuming one covers all
Federal paths	Applicable 10, 404 and 408 decisions	Single federal checkbox
Field methods	Conditions and temporary footprint	Contractor discretion alone
Closeout	As-built, monitoring and conditions	Physical completion alone

Course completion

Return to the BuilderCE course lesson page and select Continue to begin the separate online final examination. The required passing score is 70%; unlimited quiz retakes are available. The online examination and answers are intentionally not reproduced in this study guide.

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