

CALIFORNIA COASTAL COMMISSION

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Tu5.5a

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**STAFF REPORT
MATERIAL AMENDMENT**

CDP Application No.: E-00-008-A1

Project Applicant: Global West Network, Inc.

Location: North Point Natural Area, City of Morro Bay, San Luis Obispo County (Exhibits 1 and 2).

Amendment Description: (1) Directionally drill two 5-inch fiber optic cable conduits from the North Point Natural Area parking lot (APN # 065-082-020) to extend seaward 100 feet below the Morro Strand Beach; (2) construct a 10 ft. x 9 ft. x 9 ft. manhole/utility vault under the parking lot; and (3) pull fiber optic cable through one conduit.

Related Approvals: State Lands Commission. Permit for Telephone Right of Way No. PRC 8168.9 approved on June 27, 2000, as amended in February 2001.

Regional Water Quality Control Board. Clean Water Act § 401 Water Quality Certification approved on August 11, 2000.

City of Morro Bay. Mitigated Negative Declaration and Special Use Permit 01-00 approved on March 19, 2001.

SYNOPSIS

On December 12, 2000, the Coastal Commission approved coastal development permit ("CDP") E-00-008 and concurred in consistency certification CC-110-00 for the construction and operation of the Global West Network Fiber Optic Cable Project. This offshore cable project will directly link cities along the central and southern California coast with four onshore landings in Morro Bay, Santa Barbara, Manhattan Beach, and San Diego.

The proposed drilling site within the City of Morro Bay is located at the North Point Natural Area ("NPNA") parking lot upland of Morro Strand State Beach. During review of CDP application E-00-008, both the City and Commission staffs believed this parcel to be located within the jurisdiction of the City's certified local coastal program ("LCP"). Accordingly, the applicant sought to obtain a CDP (in addition to other required local approvals) from the City for proposed development activities at this site. Subsequent to the Commission's approval of CDP E-00-008, the Commission staff learned that this parcel actually is subject to the permit jurisdiction that the Commission retains pursuant to section 30519(b) of the Coastal Act and not to the City's jurisdiction under its LCP. Thus, the applicant is seeking in this application to amend CDP E-00-008 to include proposed drilling and construction activities on this parcel.

The Coastal Commission's approval of CDP E-00-008 covered all Morro Bay area cable-laying activities seaward of the mean high tide line. This staff report evaluates drilling and construction activities proposed at the NPNA parking lot (APN# 065-082-020) and under Morro Strand State Beach. All conditions of CDP E-00-008 remain in effect and are applicable to the project modification that is the subject of this amendment proceeding.

Two five-inch steel conduits will be directionally drilled from the NPNA under Morro Strand State Beach and surface about 2,800 feet offshore. One fiber optic cable will be pulled into the southern-most conduit.

The main Coastal Act issues raised by activities proposed in this amendment application are: (a) the potential to interfere with public access to Morro Strand State Beach; and (b) the potential destruction of or disturbance to coastal scrub vegetation.

The proposed project will result in the loss of eight public parking spaces at the NPNA (which is an access point to Morro Strand State Beach) for at least 26 days. The applicant is proposing to provide a minimum of eight alternative parking spaces at a lot adjacent to the park for the duration of the project.

Pedestrian access to the park and beach will remain open during all project operations; however, noise and other impacts of the construction activity will likely discourage park and beach users from visiting this area. To compensate for any adverse impacts to beach users caused by construction activities, the applicant has agreed to pay California Department of Parks and Recreation \$250,000 to provide infrastructure improvements and recreational enhancements at Morro Strand State Beach. The funds will be used to replace and improve a public restroom facility. Any remaining funds will be used for recreational infrastructure and landscaping

improvements. In addition, the applicant will provide the City with \$7,500 for City beach improvements. Further, pursuant to a condition of the City's Special Use Permit, if the proposed project is not complete and the parking lot is not open after 45 days from commencement of drilling, the applicant shall pay \$5,000 per day to the City of Morro Bay. The City will use these funds for coastal access and recreational improvements at the NPNA or other suitable areas within the City. With these commitments in place, the Commission staff believes that the project will be carried out consistent with the Coastal Act's public access and recreation policies.

Proposed activities at the NPNA may also result in loss of coastal scrub. The drilling site is located in a highly disturbed and degraded developed area in and adjacent to the public parking lot. The area contains coastal scrub vegetation, however. Ground disturbance will be limited to small, isolated areas, and so vegetation loss should be minimal. However, the Commission staff is recommending a number of special conditions to ensure that (a) native vegetation impacts are avoided, and where avoidance is infeasible, minimized, and (b) disturbed areas are restored. **Special Condition 24** requires the applicant to conduct pre- and post-construction photographic surveys of the project site to identify areas of vegetation removal and disturbance. **Special Condition 25** requires the applicant to prepare and implement a site-specific revegetation plan based on the results of the pre- and post-construction surveys. The Commission staff believes that as conditioned the project will be carried out in a manner that will prevent significant impacts to environmentally sensitive habitat areas and is consistent with Coastal Act § 30240.

The Commission staff thus recommends that the Commission approve CDP amendment application E-00-008-A1, as conditioned.

1.0 STAFF RECOMMENDATION

1.1 Approval with Conditions

The staff recommends conditional approval of Coastal Development Permit Amendment Application No. E-00-008-A1.

Motion:

I move that the Commission approve the proposed amendment to Coastal Development Permit No. E-00-008 pursuant to the staff recommendation dated March 28, 2001.

Staff recommends a YES vote on the foregoing motion. Passage of this motion will result in conditional approval of the amendment and adoption of the following resolution and findings. The motion passes only by affirmative vote of a majority of the Commissioners present.

Resolution:

The Commission hereby approves the coastal development permit amendment on the ground that the development as amended and subject to conditions will be in conformity with the policies of Chapter 3 of the Coastal Act and will not prejudice the ability of the local government having jurisdiction over the area to prepare a Local Coastal Program conforming to the provisions of Chapter 3. Approval of the permit amendment complies with the California Environmental Quality Act because either 1) feasible mitigation measures and/or alternatives have been incorporated to substantially lessen any significant adverse effects of the development on the environment, or 2) there are no further feasible mitigation measures or alternatives that would substantially lessen any significant adverse impacts of the development on the environment.

2.0 STANDARD CONDITIONS Appendix A.

3.0 SPECIAL CONDITIONS

Coastal development permit E-00-008 includes 22 special conditions. These conditions remain in effect and are applicable to the project modification that is the subject of this amendment proceeding. This permit amendment is granted subject to the following additional special conditions:

- 23. Avoidance Measures.** The applicant shall avoid, and, if total avoidance is not feasible, minimize impacts to native vegetation and other sensitive resources.
- 24. Pre- and Post-Construction Biological Surveys.** Within two weeks before commencement of development activities at the North Point Natural Area ("NPNA"), the applicant shall photograph the project site in a manner that displays all plant species present on the NPNA site. The pre-construction photographic survey shall be submitted to

the Executive Director of the Coastal Commission (hereinafter "Executive Director") prior to commencement of development activities at the site. Within one week following project completion, the applicant shall photograph the project site again to identify areas of vegetation removal or disturbance.

25. **Revegetation Plan.** Within two weeks of project completion, the applicant shall submit to the Executive Director (1) the post-construction photographic survey required by Special Condition 24; and (2) a botanist's description of project-related vegetation removal or disturbance. If the results of the post-construction survey demonstrate vegetation loss or disturbance, the applicant shall within one month of project completion submit for Executive Director review and approval a site-specific revegetation plan. The plan shall include (a) measures to revegetate disturbed areas with native plants; (b) measures to remove and control introduced species; (c) timing of restoration; (d) restoration monitoring measures; (d) performance criteria for determining restoration success; and (e) provision for remediation measures if performance criteria are not met.

4.0 FINDINGS AND DECLARATIONS

4.1 Amendment Background

On December 12, 2000, the Coastal Commission approved coastal development permit ("CDP") E-00-008 and concurred in consistency certification CC-110-00 for the construction and operation of the Global West Network Fiber Optic Cable Project. This offshore cable project will directly link cities along the central and southern California coast with four onshore landings in Morro Bay, Santa Barbara, Manhattan Beach, and San Diego.

The proposed Morro Bay landing/drilling site is located at the North Point Natural Area ("NPNA") parking lot (APN # 065-082-020) upland of Morro Strand State Beach. During review of CDP application E-00-008, both the Commission and City of Morro Bay (hereinafter "the City") staffs believed this parcel to be located within the jurisdiction of the City's certified local coastal program ("LCP"). Accordingly, the applicant sought to obtain a CDP (in addition to other required local approvals) from the City for proposed development activities at this site. Subsequent to the Commission's approval of CDP E-00-008, the Commission staff learned that this parcel actually is subject to the permit jurisdiction that the Commission retains pursuant to section 30519(b) of the Coastal Act and not to the jurisdiction of the City under its LCP. Thus, the applicant is seeking in this application to amend CDP E-00-008 to include proposed drilling and construction activities on this parcel.

The Coastal Commission's approval of CDP E-00-008 covers all Morro Bay area cable-laying activities seaward of the mean high tide line. This staff report evaluates drilling and construction activities proposed at the NPNA parking lot (APN# 065-082-020) and under Morro Strand State Beach.

4.2 Amendment Description

The applicant proposes to amend the permit to authorize construction of a fiber optic cable landing site at the North Point Natural Area ("NPNA"), a City of Morro Bay (hereinafter "the City") bluff top park that provides a vertical staircase accessway to Morro Strand State Beach (Exhibit 2). Two five-inch steel conduits will be directionally drilled from the NPNA parking lot to extend seaward 100 feet below Morro Strand State Beach. One fiber optic cable will be pulled into the southern-most conduit.

The construction staging area will encompass the NPNA parking lot (eight spaces) and an adjacent unpaved sparsely vegetated area totally approximately 17,395 square feet. Onshore, the conduits will terminate at a manhole/utility vault to be constructed under the public parking area at the terminus of Toro Lane. This 10-foot x 9-foot x 9-foot utility vault will be located approximately 200 feet west of Highway 1. Within the vault, the sea cable will be spliced to the land cable. No routine maintenance or repair of the vault or cable is anticipated over the life of the cable (25 years) unless a fault or break in the cable occurs between the landing and the next manhole.

Directional drilling will be performed using a mobile drill rig which includes the drill and a mud (drilling fluid) pump system. The conduits will advance in 30-foot sections through the boreholes as they are created. Surveys will be taken in 15 and 30-foot increments to verify the drill position and path.

The duration of the drilling operation is expected to take about one month. Drilling will be conducted during daylight hours only, Monday through Friday.

4.3 Coastal Act Issues

4.3.1 Public Access and Recreation

Coastal Act § 30211 states that:

Development shall not interfere with the public's right of access to the sea where acquired through use or legislative authorization, including, but not limited to, the use of dry sand and rocky coastal beaches to the first line of terrestrial vegetation.

Coastal Act § 30221 states in part:

Oceanfront land suitable for recreational use shall be protected for recreational use and development.....

Coastal Act § 30240(b) states in part:

(b) Development in areas adjacent to ... parks and recreation areas shall be sited and designed to prevent impacts which would significantly degrade those areas, and shall be compatible with the continuance of those ... recreation areas.

The North Point Natural Area ("NPNA"), a City of Morro Bay park, provides access to Morro Strand State Beach and a viewpoint of the beach and coastal areas. The NPNA is a small park with several benches and a short trail and stairs (roughly 100 feet) leading down to the state beach. The California Department of Parks and Recreation ("CDPR") estimates that in January and February 2000 an average of 231 and 280 visitors per day recreated at Morro Strand State Beach. The City of Morro Bay Parks and Recreational Department estimates that every year, approximately 10,000 to 15,000 visit NPNA or use it to access the state beach (Leuker, 2001).

The applicant proposes to use the entire NPNA parking lot (eight spaces) as a construction and staging area for about one month. There will be no permanent loss of parking after the project is complete since the manhole/utility vault will be placed underneath the parking lot.

Alternative parking and vertical access ways to Morro Strand State Beach do exist. From Cayucos to Morro Bay, there are approximately 30 vertical access points from public streets into a total 6.1 miles of the state beach. Moreover, there are approximately 175 parking spaces within a 5-minute walk of the NPNA. The nearest vertical access way to the north of the NPNA is through two informal accessways through the Chevron Estero Marine Terminal approximately 0.5 mile north. The nearest vertical accessway to the south of the NPNA is at Morro Strand State Beach roughly 800 feet to the south of NPNA. Nearby parking includes a lot at the state beach and street parking along a 0.5 mile length of Beachcomber Street, which is parallel to the shoreline. Informal trails across the bluff from Beachcomber Street also lead to the state beach. The proposed project is anticipated to commence in early April. By avoiding peak summer recreational periods, the alternative parking areas should be adequate to absorb the eight spaces that are displaced during construction activities.

Should the public choose to visit the NPNA by car during the project, the applicant has agreed to provide eight or more parking spaces on an undeveloped, disturbed lot ("Lot 10") directly adjacent to the NPNA parking lot. According to the City of Morro Bay Public Services Department, this lot is currently graded and unpaved with no biological resources (Everling, 2001). The applicant will place signs at the NPNA to direct park and beach users to alternative parking spaces.

During the project, pedestrian access to the NPNA or Morro Strand State Beach will not be precluded. Nonetheless, given the industrial nature of the drilling operations and the resultant noise, visual, and air quality impacts, visitors will likely be discouraged from recreating at the NPNA or accessing the state beach. To compensate for any adverse impacts to beach users caused by construction activities, the applicant has agreed to pay the CDPR \$250,000 to provide infrastructure improvements and recreational enhancements at Morro Strand State Beach. The funds will be used to replace and improve a public restroom facility. Any remaining funds will

be used for recreational infrastructure improvements and landscaping. In addition, the applicant will provide the City with \$7,500 for City beach improvements.

The proposed project is estimated to take about one month. Pursuant to a condition of the City's Special Use Permit, if the proposed project is not complete and the parking lot is not open after 45 days from commencement of drilling, the applicant shall pay \$5,000 per day to the City of Morro Bay. The City will use these funds for coastal access and recreational improvements or enhancements at the NPNA or other suitable areas within the City.

The Commission finds that with the above-described commitments in place to provide alternative parking during project construction and funds for State and City beach enhancement projects, the project will not interfere with the public's ability to access and recreate at the coast. The proposed project is therefore consistent with Coastal Act § 30211, 30221 and 30240(b).

4.3.2 Environmentally Sensitive Habitat Areas ("ESHA")

Coastal Act § 30240 states:

(a) Environmentally sensitive habitat area shall be protected against any significant disruption of habitat values, and only uses dependent on such resources shall be allowed within such areas.

(b) Development in areas adjacent to environmentally sensitive habitat areas... shall be sited and designed to prevent impacts which would significantly degrade those areas, and shall be compatible with the continuance of those habitat ... areas.

Proposed drilling and construction activities are located adjacent to beach areas that are known to provide critical habitat for the Western snowy plover. Proposed activities may also result in the loss of coastal scrub vegetation.

Potential Western Snowy Plover Impacts

The Morro Bay landing site is adjacent to areas that have been designated by the U.S. Fish and Wildlife Service ("USFWS") as critical habitat for the Western snowy plover. The closest designated critical habitat area is about 300 feet south of the landing site. Another area of critical habitat for the snowy plover is farther north of the project site. No project-related foot or equipment traffic or equipment operations will occur in either of these critical habitat areas. The proposed drilling site at the NPNA is not located within critical habitat for the Western snowy plover. The beach immediately west of the proposed landing site is frequently used by the public and consists of a rocky shoreline, less than 150 feet in width and is backed by a 20-25 foot high bluff. Due to the narrow and rocky beach and the public's use thereof, the beach area west of the landing site does not provide good nesting habitat for the snowy plover.

However, construction activities and noise could disturb snowy plovers nesting near the project site. Prior to and during any ground disturbances or construction activity, the applicant is proposing to retain a qualified biologist to survey the construction area and other potentially

suitable habitat within one-quarter mile of the construction area to ensure that there are no Western snowy plovers breeding within this area. The biologist will re-survey these areas three times per week during construction activities to confirm the absence of snowy plovers from areas where they could be affected. If Western snowy plovers are found to be breeding within one-quarter mile of the landing site, construction activities shall cease and the biologist shall notify the USFWS. Any measures deemed necessary by the USFWS to avoid take of this species shall be implemented prior to the resumption of construction activities. Critical habitat boundaries will also be plotted on project plans and designated as off limits to project personnel with the exception of the qualified biologist.

The City is further requiring that all project construction equipment be muffled to reduce levels to no more than 65 dBA on the beach area closest to the construction site. A qualified acoustical engineer will conduct daily noise monitoring.

With these measures in place, the Commission believes that the project will be carried out in a manner that will not disturb Western snowy plover critical habitat.

Vegetation Impacts

The drilling site construction area (17,395 sq. ft.) at the NPNA is located in a highly disturbed and degraded developed area in and adjacent to a public parking lot. The primary vegetation type at the NPNA is coastal scrub. The area has limited perennial vegetation cover with scattered loco weed (*Astragalus nuttallii*), a small native shrub which is the most common species. The natural bluff scrub adjacent to the parking lot is in degraded condition with low diversity of shrubs. Coyote brush (*Baccharis pilularis*) is dominant, and non-native species, such as fennel and mustards, are prevalent.

Ground disturbance will be limited to relatively small, isolated areas where equipment, personnel, and installation activities will cause the removal of vegetation. The City is requiring the applicant prior to construction to clearly mark the perimeter of the work area and limit construction within the smallest area necessary. The applicant must also retain a qualified biological monitor to document pre-construction site conditions and supervise all construction activities. **Special Condition 23** requires the applicant to avoid, and, if total avoidance is not feasible, minimize impacts to native vegetation and other sensitive resources. Prior to commencement of site construction activities, the Commission is also requiring the applicant in **Special Condition 24** to perform within two weeks of project commencement a pre-construction photographic survey of the site to identify all plant species present onsite. Within two weeks of completion of construction activities at the site, the applicant is to perform a post-construction photographic survey of the site to identify all disturbed areas. The survey results are to be submitted to the Executive Director and will help to inform restoration plan requirements.

Special Condition 25 requires the applicant to submit a botanist's assessment of vegetation disturbance and a site-specific revegetation plan. The plan, to be submitted within one month of project completion, shall include (a) measures to re-vegetate disturbed areas with native plants; (b) measures to remove and control introduced species; (c) timing of restoration; (d) restoration

monitoring measures; (d) performance criteria for determining restoration success; and (e) provision for remediation measures if performance criteria are not met.

Conclusion

The Commission finds that the proposed project, as conditioned, will be carried out in a manner that will prevent significant adverse impacts to ESHA and the significant species that reside there. The proposed project is therefore consistent with Coastal Act § 30240.

4.3.3 Marine Resources and Water Quality

Coastal Act § 30230 states:

Marine resources shall be maintained, enhanced, and where feasible, restored. Special protection shall be given to areas and species of special biological or economic significance. Uses of the marine environment shall be carried out in a manner that will sustain the biological productivity of coastal waters and that will maintain healthy populations of all species of marine organisms adequate for long-term commercial, recreational, scientific, and educational purposes.

Coastal Act § 30231 states in part:

The biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes appropriate to maintain optimum populations of marine organisms and for the protection of human health shall be maintained and, where feasible, restored through, among other means, minimizing adverse effects of waste water discharges and entrainment, controlling runoff....

Proposed drilling and construction activities at the proposed NPNA site could result in the release of drilling lubricant (*i.e.*, bentonite) and surface runoff into marine waters.

Potential Bentonite Release

Directional drilling for the installation of cable conduit will require the use of bentonite as a drilling lubricant. The bentonite will be mixed with water and circulated into the borehole to prevent it from caving in and to coat the wall of the hole in order to minimize fluid losses to permeable formations. Drilling fluids also act as a drill head lubricant and transport the cuttings up to the entry point.

Bentonite (sodium montmorillinite), a natural clay, is inert and non-toxic, though it can cause adverse impacts to aquatic organisms by physical abrasion, clogging, or smothering when released in significant quantities. Bentonite may contain elevated concentrations of barium and other metals that are present as trace impurities in clay. However, these metals are in the form of insoluble salts and thus do not readily dissolve in seawater and are not biologically available. Moreover, the acute toxicity of bentonite is very low.

During conduit drilling beneath the onshore landing, a release of bentonite may occur if geologic fractures within a formation are encountered. Where a fracture is lateral and subterranean, lost fluids would never surface. However, if a fracture is close to the seafloor surface or is aligned in a vertical or uplifted fashion, high drilling pressures may force the release of fluids through the surface. Drilling through fractures has been a common occurrence in previous fiber optic cable projects permitted by the Commission (*e.g.*, MCI WorldCom/MFS Globenet (E-99-011), PC/PAC (E-98-027), and AT&T (E-00-004).

The applicant proposes to monitor continuously drilling fluid returns and pressure to detect fluid loss in order to avoid or minimize potential releases of bentonite ("frac-outs") to the marine environment. If a loss of fluid volume or pressure is detected, drilling will be stopped or slowed to allow close observation for a surface release to the ocean. If a release is discovered, the applicant will take measures to reduce the quantity of fluid released by reducing drilling fluid pressures and/or thickening the drilling fluid in order to attempt to seal the fracture causing the release. Any surface releases of bentonite above the mean high tide line will be contained with sand bags and collected for reuse or disposal. The environmental impact report ("EIR") for the overall cable project states that containment and collection of a release below the mean high tide line is impractical, as the fluids would dissipate in the seawater.

Even with these preventive measures in place, fractures may release bentonite into the marine environment. Depending on the volume of bentonite released, marine aquatic organisms could be adversely impacted. As stated above, all previous fiber optic cable projects permitted by the Commission this year have experienced fractures. To date, no detectable releases of bentonite into marine waters have occurred. However, given the dynamic, high-energy wave environment of nearshore waters, it is extremely difficult to visually detect a release of bentonite.

In approving CDP E-00-008, the Commission required the applicant in Special Condition 15 to prepare a project-specific drilling fluid mitigation and spill contingency plan that includes: (1) an estimate of a reasonable worst case release of drilling fluid into marine waters caused by project operations; (2) a clear protocol for monitoring the use of drilling fluids, including criterion for identifying an unanticipated release of bentonite; (3) a response and clean-up plan in the event of a marine spill or discharge; (4) a list of all clean-up equipment that will be maintained on-site; (5) the specific designation of the onsite person who will have responsibility for implementing the plan and; (6) proposed measures to seal fractures. The drilling fluid monitoring and spill contingency plan covers the proposed Morro Bay drill site. With these prevention and response measures in place, the Commission believes that marine resources and water quality will be protected, as required by Coastal Act § 30230 and 30231.

Controlling Runoff

No long-term impacts to water quality should occur during cable drilling primarily due to the installation method (horizontal directional drilling) which would place the conduit and cable under bluff and beach areas such that it would not affect existing topography and surface water. Short-term water quality impacts to coastal waters could occur due to erosion or sedimentation from the construction area. Use of construction equipment could result in potential spillage of

petroleum products such as hydraulic fluids, motor oil, grease, or gasoline. These spills could enter coastal waters or nearby drainage courses.

Directional drilling construction techniques will result in temporary stockpiling of soil (prior to refilling the trench or pits) and a short-term increase in the amount of soil exposed to wind and water erosion. The applicant will not stockpile soil material for more than one day; all material will be transported offsite, minimizing the amount of soil exposed to erosive forces. The applicant will also implement a project-specific Storm Water Pollution Prevention Plan ("SWPPP"), approved by the Regional Water Quality Control Board when it certified the project pursuant to section 401 of the Clean Water Act. The SWPPP has incorporated Best Management Practices ("BMPs"), as identified by the California Storm Water Best Management Practice Handbook for Construction Activity (1993), to minimize erosion, control off-site sedimentation discharges, stabilize disturbed areas, and clean-up site disturbances. Examples of BMPs include the use of straw bale barriers and silt fabric fencing. Straw bale barriers will be in place downhill from construction areas and the alternative parking site to prevent downstream sediment transport.

In addition, the applicant will designate storage, fueling, and equipment maintenance areas greater than 100 feet from bluff and beach areas or any drainage. Protective barriers (*i.e.*, spill pads) will be installed under heavy equipment to insure that fuel or fluid leaks do not contaminate soil or groundwater. Moreover, heavy equipment will be inspected daily for fuel or fluid leaks and any leaking equipment will be repaired or replaced immediately. Spill pads will also be placed on the alternative public parking area (referred to as "Lot 10") to catch any leaks from parked cars.

Conclusion

Based on the reasons discussed above, the Commission finds that the proposed activities will be carried out in a manner that maintains marine resources and sustains the biological productivity and quality of coastal waters. The proposed activities described in the amendment application are therefore consistent with Coastal Act § 30230 and 30231.

4.3.4 Geology

Coastal Act § 30253(2) states that:

New development shall:

(2) Assure stability and structural integrity, and neither create nor contribute significantly to erosion, geologic instability, or destruction of the site or surrounding area or in any way require the construction of protective devices that would substantially alter natural landforms along bluffs and cliffs.

At the Morro Bay landing surface geology at the bore entry point consists of Pleistocene age marine deposits and marine terrace deposits, overlying Cretaceous age Franciscan Formation

(mapped locally as the "San Luis" Formation). Offshore surface geology along the proposed bore alignment has been identified as Miocene age sedimentary rock.

Stability of Landing Site

The stability of the landing site relates both to potential coastal bluff failures and to shoreline retreat associated with coastal erosion and/or sea level rise. At this site, the applicant proposes a 200 foot setback from the bluff. The Commission's senior geologist has determined that the proposed drilling site is set back sufficiently from the shoreline and bluff to ensure stability over the expected economic life of the development (approximately 25 years). Further, the EIR prepared for the overall cable project and applicant's site-specific geotechnical investigation report conclude that proposed drilling activities will not contribute to erosion, geologic instability or other destruction at the site. The Commission's senior geologist concurs with these conclusions.

Directional Drilling Activities

Probably the greatest geologic concern related to the project is that horizontal directional drilling activities associated with the installation of cable conduits could result in release of drilling fluids (bentonite) into the nearshore or marine environment. Most likely is the release of bentonite as a result of a "frac-out," the propagation of fractures from the drilling bore to the seafloor. A frac-out results from drilling through brittle, fractured and/or poorly consolidated rocks or sediments, the maintenance of too-high fluid pressures in the bore during drilling, and drilling at too shallow a depth below the seafloor. It is the opinion of the Commission's staff geologist that the cable landing is susceptible to frac-out given the local geology.

The limited geologic information available at the site, which consists of a minimum of one deep boring near the landing site itself and an interpretive geologic cross-section along the length of the proposed bore, does provide sufficient information to help guide drilling such that it occurs in the strata least likely to be susceptible to a frac-out. At Morro Bay, fractured rock, cobble layers, and/or poorly cohesive sands raise cause for concern that frac-outs are a distinct possibility unless carefully guarded against. This risk can be mitigated considerably by drilling at a greater depth below the seafloor than the proposed 50 feet. All other conditions remaining equal, fracture and intergranular porosity and permeability are generally lower at greater depths due to compaction and higher confining pressures, reducing the likelihood of frac-out. Accordingly, in approving CDP E-00-008, the Commission required in Special Condition 22 that the bore depth at all landing sites, including the one at Morro Bay, be a minimum of 100 feet below the seabed with the exception of the initial bore entry and exit points. The Executive Director may approve a shallower bore depth if, during the drilling process, the applicant submits evidence that there are more favorable geologic conditions (*i.e.*, less possibility of a frac-out) at depths less than 100 feet.

Notwithstanding the deeper bore depth, a frac-out could still occur. The easiest way to guard against the release of drilling fluid into the marine environment through frac-out are to: (a) carefully monitor the level and pressure of drilling fluid and stop drilling when these levels fall below prescribed minimum values (to seal and grout fractures); (b) replace drilling fluid with

water whenever conditions permit, especially as the drill bit is brought to the seafloor at the end of the bore; and (c) drill in geologic strata that are least susceptible to frac-out. As discussed in section 4.3.3 of this report, the Commission, in approving CDP E-00-008, required the applicant in Special Condition 15 to prepare a project-specific horizontal directional drilling ("HDD") fluid monitoring and spill contingency plan. That monitoring and contingency plan applies to the onshore drill site at Morro Bay.

The Commission finds that with these measures in place the proposed project will not contribute to geologic instability and is therefore consistent with Coastal Act § 30253(2).

4.3.5 Cultural Resources

Coastal Act § 30244 states:

Where development would adversely impact archaeological or paleontological resources as identified by the State Historic Preservation Officer, reasonable mitigation measures shall be required.

The onshore drilling site is located in an area of high archaeological sensitivity. Cultural resources in the project area possess a high ethnographic value to the Native American Chumash community. There are two important prehistoric Chumash village sites located nearby, CA-SLO-879 and CA-SLO-1187.

Based upon site records, cable installation activities will not affect recorded archaeological sites. However, since the area is archaeologically sensitive there is potential that project-related activities could impact unrecorded archaeological deposits. To avoid any potential impact to these sensitive resources, the City of Morro Bay is requiring that prior to any earth-moving activities the landing site be surveyed to identify any surface cultural resources. A pre-construction archaeological workshop, conducted by a qualified archaeologist, will occur for all construction personnel to educate them about what types of cultural materials may be encountered during construction activities. A communication network will be in place if any suspected cultural materials are unearthed. If any cultural materials are unearthed, all work shall be halted or redirected to other areas until all cultural materials are documented by a qualified archaeologist and appropriate recommendations are made. Further, a qualified archaeologist and Native American shall be present at the site to monitor all grading and excavation activities.

The Commission thus finds that will these measures in place the proposed activities are consistent with Coastal Act § 30244.

4.3.6 Air Quality

Coastal Act § 30253(3) states:

New development shall:

(3) Be consistent with the requirements imposed by an air pollution control district or the State Air Resources Control Board as to each particular development.

For regulatory purposes, air pollutants are generally recognized as "criteria pollutants" or as toxic air pollutants. Criteria pollutants include carbon monoxide ("CO"), nitrogen oxide ("NO₂"), sulfur dioxide ("SO₂"), particulate matter with a diameter of up to 10 microns ("PM₁₀"), lead, sulfates and hydrogen sulfide. Toxic air pollutants are those known or suspected to cause cancer, genetic mutations, birth defects, and other serious illness to people. Reactive organic gases ("ROG") are also of concern because of their role in forming ozone, a secondary pollutant. The U.S. Environmental Protection Agency and California Air Resources Board establish Federal and state pollutant standards, respectively.

Of particular concern is the release of NO_x emissions due to construction activities. Nitric oxide is a colorless gas formed during combustion processes, which rapidly oxidizes to form NO₂, a brownish gas.

The San Luis Obispo Air Pollution Control District ("SLOAPCD") is the local air pollution control district responsible for implementing federal and state air quality standards in the project area in San Luis Obispo County. The EIR for the overall cable project indicates that project NO_x emissions will exceed the SLOAPCD CEQA threshold of 185 pounds per day for both offshore and onshore cable installation. All emissions will meet quarterly limitations. While no permit will be required for this project, the applicant and the SLOAPCD have come to an agreement whereby the applicant will offset 2.86 tons of NO_x emissions through payment of \$10,000 (at \$3,500/ton NO_x) into a Marine Engine (Replacement) Fund for the first four weeks of drilling operations. The applicant will pay \$1,000 for each week that drilling operations extend beyond the four week period. The monies will be used exclusively to replace or retrofit two-stroke marine diesel engines operating off of San Luis Obispo County.

Emission reductions achieved through the mitigation measures (including the retardation of the injection timing on diesel-powered vessels, use of low-sulfur fuel, the proper maintenance of diesel-powered construction equipment, measures to reduce particulate emissions) will be implemented as well. These measures, together with the purchase of offsets agreed to will reduce the project's potential air quality impacts to less than significant levels.

The Commission thus finds that the proposed onshore project activities will be carried out consistent with the rules and requirements of the local air district and therefore is consistent with Coastal Act § 30253(3).

4.4 California Environmental Quality Act ("CEQA")

As "lead agency" under the California Environmental Quality Act ("CEQA"), the City of Morro Bay on March 19, 2001 approved a mitigated negative declaration ("MND") for proposed onshore cable landing project activities at the North Point Natural Area park area.

The Commission's permit process has also been designated by the State Resources Agency as the functional equivalent of the CEQA environmental impact review process. The Commission's permit review process identified numerous impacts that were not resolved in the mitigated negative declaration. Pursuant to section 21080.5(d)(2)(A) of the CEQA and section 15252(b)(1) of Title 14, California Code of Regulations (CCR), the Commission may not approve a development project "if there are feasible alternatives or feasible mitigation measures available which would substantially lessen any significant adverse impact which the activity may have on the environment." The Commission finds that only as conditioned are there no feasible less environmentally damaging alternatives or additional feasible mitigation measures that would substantially lessen any significant adverse impact which the activity may have upon the environment, other than those identified herein. Therefore, the Commission finds that the project as fully conditioned is consistent with the provisions of the CEQA.

APPENDIX A: STANDARD CONDITIONS

1. **Notice of Receipt and Acknowledgment.** The permit is not valid and development shall not commence until a copy of the permit, signed by the permittee or authorized agent, acknowledging receipt of the permit and acceptance of the terms and conditions, is returned to the Commission office.
2. **Expiration.** If development has not commenced, the permit will expire two years from the date on which the Commission voted on the application. Development shall be pursued in a diligent manner and completed in a reasonable period of time. Application for extension of the permit must be made prior to the expiration date.
3. **Interpretation.** Any questions of intent of interpretation of any condition will be resolved by the Executive Director or the Commission.
4. **Assignment.** The permit may be assigned to any qualified person, provided assignee files with the Commission an affidavit accepting all terms and conditions of the permit.
5. **Terms and Conditions Run with the Land.** These terms and conditions shall be perpetual, and it is the intention of the Commission and the permittee to bind all future owners and possessors of the subject property to the terms and conditions.

APPENDIX B: SUBSTANTIVE FILE DOCUMENTS

Coastal Development Permit Application Materials

Application for Coastal Development Permit E-00-008 dated May 4, 2000, as amended on August 23, 2000.

Agency Permits and Orders

Clean Water Act Section 401 Water Quality Certification. Issued by the State Water Resources Control Board, August 11, 2000.

Environmental Documents/Reports

City of Morro Bay. 2001. Mitigated Negative Declaration, prepared for the Global West Network Fiber Optic Project.

SAIC. 2000. Final Environmental Impact Report, "Global West Network Fiber Optic Cable Project," Vols. I-III. Prepared for the California State Lands Commission.

SAIC. 2000a. Finalizing Addendum to the Draft Environmental Impact Report: AT&T China-U.S. Cable Network. Prepared for the California State Lands Commission.

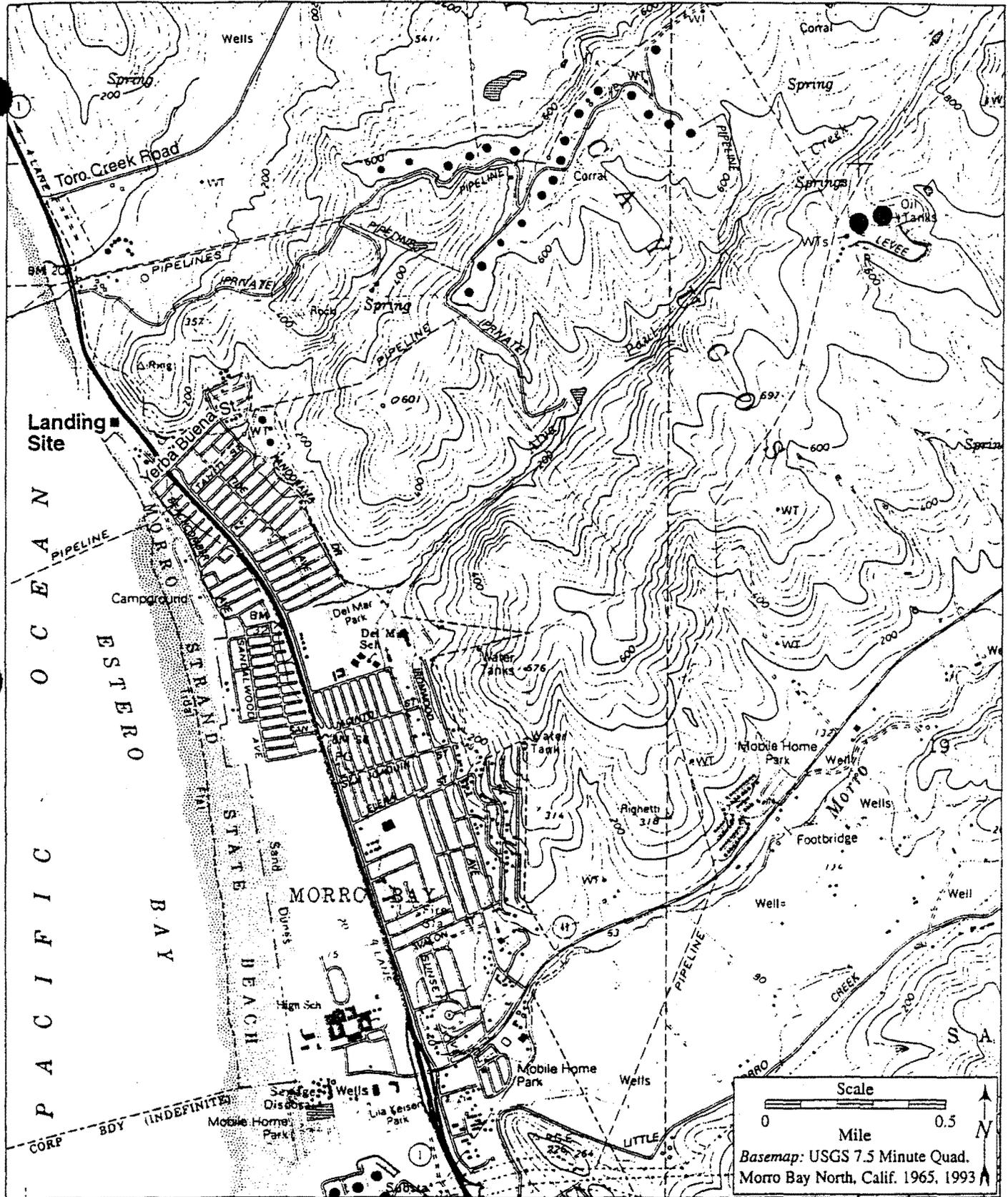
Morro Group. 2000. Final Environmental Impact, "MFS Globenet Corp./WorldCom Network Services Fiber Optic Cable Project, Vols. I & II. County of San Luis Obispo.

Other

Letter from Lucy Demian, Global West Network, Inc., to Alison Dettmer, Coastal Commission, March 26, 2001.

Letter from Ted Mullen, Science Applications International Corporation, to Steve Henry, U.S. Fish and Wildlife Service, March 2, 2001.

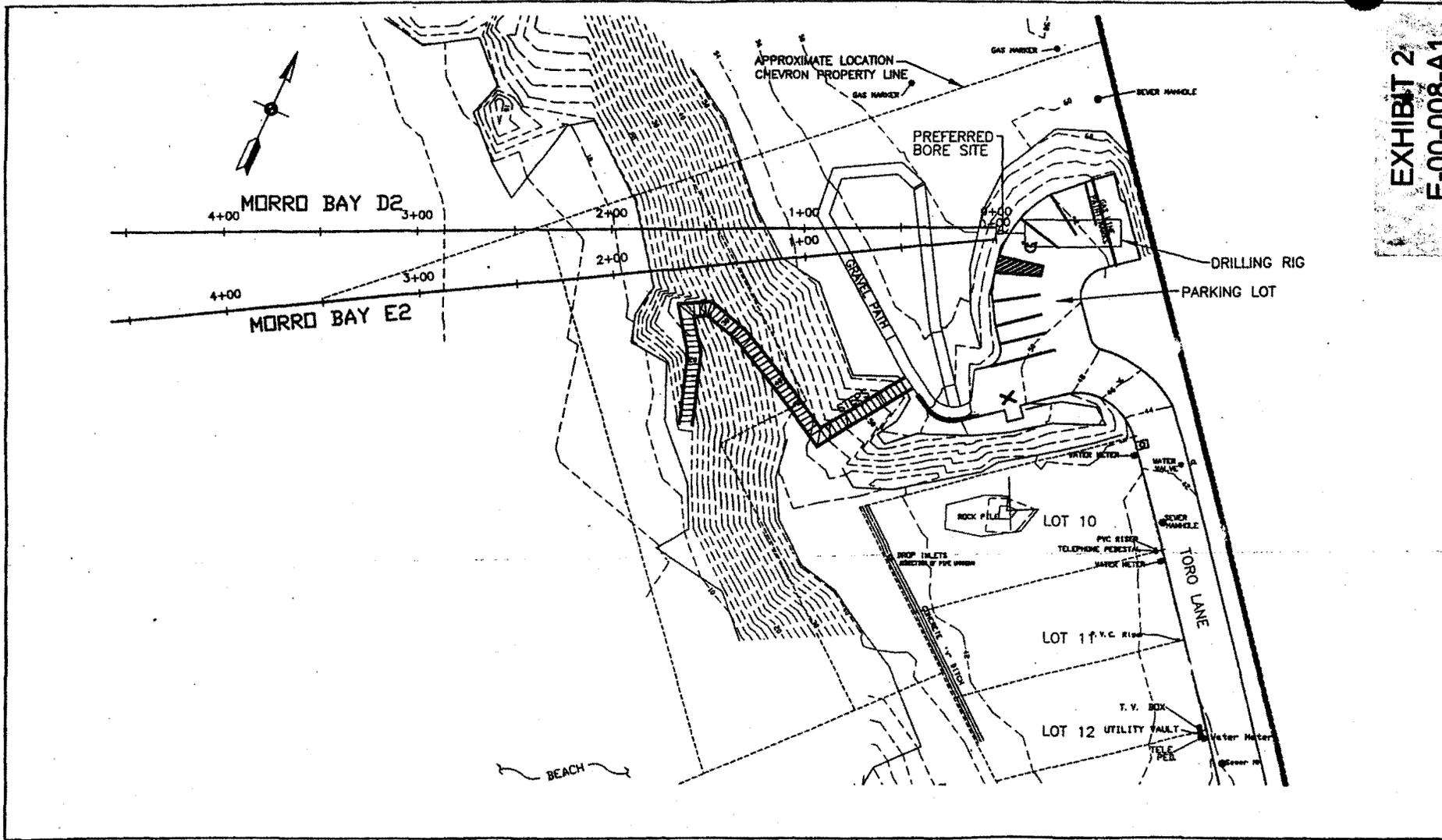
Michael Baker Corporation, 2000, "Landing site slope stability analysis", geologic letter report to Dan Chia by E. Glisan (P.E.).



GLOBAL PHOTON FIBER OPTIC
CABLE INSTALLATION

Douglas Wood & Associates, Inc.

Initial Study
EXHIBIT 1
E-00-008-A1



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SCALE IN FEET (HORIZONTAL)

GLOBAL PHOTON FIBER OPTIC
CABLE INSTALLATION