May 14, 2002

Honorable Chairman and Members of the Hermosa Beach Planning Commission

Regular Meeting of May 21, 2002

SUBJECT: AMENDMENT TO PLANNED DEVELOPMENT PERMIT/PRECISE DEVELOPMENT PLAN (PDP) NO 01-10 TO ALLOW A HORIZONTAL DIRECTIONAL DRILLING APPROACH FOR THE INSTALLATION OF A PORTION OF THE SUBMARINE FIBER OPTIC CABLE SYSTEM LOCATED AT THE BEACH AND ON CITY OWNED PROPERTY.

APPLICANT: TYCO NETWORKS (US) INC.
10 PARK AVENUE
MORRISTOWN, NJ 07960

REQUESTS: AMENDMENT TO PLANNED DEVELOPMENT PERMIT/PRECISE DEVELOPMENT PLAN NO. 01-10 AND ADDENDUM TO THE ENVIRONMENTAL IMPACT REPORT

Recommendation:

Consider the subject permit and adopt the following Resolution:

- Recommending that the City Council approve an Addendum to the Certified Environmental Impact Report.
- Approving the Amendment to Planned Development Permit/Precise Development Plan No. 01-10.

Project Information

ZONING:	OS-1 (Greenbelt) and Public right-of-way
GENERAL PLAN:	Open Space and Public Right-of Way
ENVIRONMENTAL DETERMINATION:	Addendum to the certified Environmental Impact Report required pursuant to Section 1500 of the California Environmental Quality Act (CEQA)

Background:

Tyco Networks (US) Inc. (the applicant) submitted a complete application to amend the approved Planned Development Permit/Precise Development Plan (PDP No. 0 1-10) to the City of Hermosa Beach on May 13, 2002. The PDP approved by the City Council in December 2001, was based on utilizing a trenched landing approach (also called a direct burial landing) to install the fiber optic cable under the beach and in the nearshore area. The amendment to the PDP

is to allow Tyco the option of utilizing a horizontal directional drilling (HDD) approach to install a portion of the submarine fiber optic cables in marine waters under the City's jurisdiction, under the beach and along a portion of the approved Second Street alignment. All other components of the approved project, including the approved lease agreement will remain unchanged. This staff report focuses on the changes to the PDP resulting from the proposed amendment. A copy of the previous City Council report is attached which details the overall project.

As originally permitted, the project involved installation of two segments of a submarine fiber optic cable system off the coast of California and within the cities of Hermosa Beach and Redondo Beach to provide additional capacity for global voice and data transmission and global access to planned and existing land-based infrastructure. The two fiber optic cables originate in Japan and will be part of the Tyco's Transpacific ring cable system. Specifically, the proposed project consists of installing two fiber optic cables, each with self-contained power, onto the continental shelf and landing at a single beach location at Second Street within the City of Hermosa Beach. The fiber optic cables are proposed to be connected to a cable station in Redondo Beach by buried terrestrial fiber optic cables. There will be no aerial (above ground) cables associated with this project, even as amended.

The Planning Commission had reviewed the original PDP proposal for the three segments (terrestrial, beach and marine segments) of the submarine fiber optic cable project in November of 2001. In December of 2001, the City Council granted final approval for the project when they certified the Environmental Impact Report, approved a Mitigation Monitoring Program (MMP), approved PDP No. 01-10 and approved the lease agreement between Tyco and the City.

The City Attorney has advised that federal statues define systems such as Tyco' s proposed fiber optic cable system a public utility. Public utilities are permitted on the beach and in the greenbelt, subject to approval of a Planned Development Permit/Precise Development Plan and a lease agreement for use of the city owned property. Through the approved lease, the City would receive compensation from Tyco for the use of City owned property. The City will use a portion of the lease revenues from for beach related improvements, such as improvements to the bathrooms, storm drains and for on-going maintenance of the pier and the beach itself.

The public hearing process for amending the PDP will involve two hearings, one hearing before the Planning Commission and one hearing before City Council. At the Planning Commission hearing, the Commission will make its recommendation to City Council regarding the approval of an Addendum to the certified Environment Impact Report relating to amending PDP No. 01-01; and will take action to approve the Amendment to the Planned Development Permit/Precise Development Plan No. 0 1-10 to allow the HDD approach at Second Street. The City Council is scheduled to take final action on the amended project on June 11, 2002. If Tyco receives approval from the City Council, the project will then require approval of a Coastal Development Permit by the California Coastal Commission (CCC) and permits from other applicable state and federal agencies. Construction will commence upon acquisition of all required permits and approvals. According to Tyco, their most recent goal is to be operational before the end of 2002. Based on staffs desire to minimize the potential short term impacts to the residents and beachgoers, the direct landing alternative, which was fully analyzed in the certified EIR and

approved by the City Council in December 2001, was the preferred method of installation. Under the direct burial option, a trench would have been excavated across the beach and intertidal zone, and jets would be used to bury the system from the mean low tide line to the 15-meter water depth. A direct landing means no conduits would be installed beyond the mean tide line. The armored marine fiber optic cable would be winched directly from the cable ship onto the beach (into a trench dug on the beach just before the winching began) and into the beach manhole as one operation. This alternative would have significantly reduced the size of the staging areas on the beach and the amount of time the staging area would be utilized. However, the City recognized that the California Coastal Commission might dictate changes to the City s approval, so one of the conditions of approval required the applicant to submit any changes for reconsideration by the City in the event the project changed.

Project Description

The current proposal involves a horizontal drilling option. Because of concerns expressed by the California Coastal Commission (CCC) staff review of Tyco's recent Coastal Development Permit application for the direct burial approach, Tyco is now proposing an amendment to their PDP, which reflects this horizontal drilling construction method. Tyco's amendment is in response the CCC's concerns about potential exposure of the cable using the direct burial approach and the impacts of the staging area on the beach itself. It is also more consistent with the City Council's review of the original project conditions of approval which were modified to include a new requirement for cable reburial depth to ensure that the proposed cable is never exposed on the beach during severe storm surges. Tyco is requesting to amend the approved PDP to allow a horizontal directional drilling (HDD) approach, as an option to the direct burial landing at Second Street and immediately offshore. The request by Tyco is very similar to the technique recently utilized in the City of Manhattan Beach to install a telecommunications cable under a portion of their beach near the Lifeguard Headquarters. The proposed change will affect terrestrial segment of the project between Hermosa Avenue and the shoreline, and the marine construction between the shoreline and the 43-foot water-depth contour.

HDD Staging Area

HDD operations will require a minimum of 3,000 square feet for staging the HDD rig and guidance controls, fluid-mixing system and pumps, pipe rack or trailer, and miscellaneous other minimal support equipment. The staging area is shown in Appendix B and photos of the staging area and surrounding area are included in Appendix D of the Addendum. Additional storage and support workspace of 12,000 to 15,000 square feet will also be required. The area proposed as the main storage area along North Francesca Avenue and Herondo Street will be used as the support staging area for the bore site at Second Street. Because the Second Street site between Beach Drive and Hermosa Avenue is limited in space, materials and supplies will need to be delivered daily from the main staging area to the drill site at Second Street.

Before the drill rig and associated equipment can be mobilized on site, the drilling site and surrounding area will need to be prepared. "No Parking" signs will be placed in and around the project site, and the site will be cleared of miscellaneous debris, and a temporary sound barrier will be constructed. The sound barrier will be constructed from %" plywood and 2x4 studs, and

will be 8 feet tall or higher, as required to mitigate noise impacts to the surrounding area. (Please see Page 7, Noise discussion). Sound blankets will line the plywood. The barrier will completely encircle the site and will have gates for access and deliveries. Sandbags or straw bales will be placed in appropriate areas to contain spillage of drilling fluid or site runoff from exiting the site. The staging area and areas for containment will occur totally within the public right-of-way on Second Street. No private property will be utilized for staging or drilling. Pictures of a similar sound wall and containment areas proposed for this project are included in the Addendum.

Horizontal Directional Drilling (HDD) Approach

The HDD approach is a process of boring (drilling) that allows the two bores to be steered. HDD bores are guided by a drill head fitted with a steering tool that uses magnetometers and inertial devices to track the direction of advance (horizontal and vertical) and the absolute location. The HDD drill rig drills into the ground at an angle through an excavated entry pit. In general, the limit of the bore angle is approximately 15 degrees, which will allow the two cables to be buried approximately 16 to 25 feet as they go under the Strand wall, approximately 65 feet in depth below the mean high-water mark (shoreline of the beach) and then over 100 feet in depth beyond the shoreline. The two bores for this project will each be approximately 3,300 feet in length. The end result is that the HDD approach will eliminate any possibility of the cables becoming exposed on the beach and in nearshore waters due to a significant storm event or beach erosion and will avoid the need to stage on the beach itself.

With HDD, the two fiber optic cable conduits are installed from shore, in sequence. The conduit is advanced in 30-foot (9.3-meter) sections through the borehole as it is created. Surveys are conducted in 30-foot (9.3-meter) increments to verify the drill position and path. A bentonite (natural clay-like substance)/water mixture is used to lubricate the bore, cool the drill, and keep the hole open by sealing the outside surface of the bore. The two boreholes will be approximately 5 inches in diameter each to allow the passage of the two, but separate, fiber optic cables. Once the bore conduits reach the desired depth, it is leveled out as the drilling continues to push the pipe horizontally through the ground. After reaching the appropriate distance offshore (approximately 2,640 feet [800 meters]), the drill head is guided to the surface and the bore is complete. The boreholes at Second Street will eventually become part of the manhole that has been relocated from the previously approved location near the Strand to serve the cable alignment inland along Second Street to Tyco's Switching Station in Redondo Beach. The bore alignment is shown on the figure in Appendix A of the Addendum. Additional details on the HDD method of installation are also included in the Addendum.

Once the site has been prepared, the drill rig and associated equipment, supplies and materials will be mobilized to the site by road transport. The drill rig will be set up and configured on the site. All drilling-fluid pumping systems will be installed and tested and then the bore entry pit will be excavated. After all of the equipment has been set up and tested, drilling can commence. The preliminary geo-technical reports indicate that the soils will accommodate the HDD approach without impacts to surrounding private properties. No boring will occur under private property. The alignment for the drilling will be conducted entirely within the public right-of-way and City

owned property. In fact, the proposed alignment has been directed away from the public bathrooms on the beach at Second Street to avoid any conflicts with the facility or with existing infrastructure in the area.

As drilling progresses, drilling mud will be pumped through the drill pipe to the mud motor. Blending dry bentonite with fresh water in the mud-mixing tank will control the viscosity range and other properties of the drilling mud. Bentonite is very fine-grained, non-toxic, natural marine sediment that swells in water. The slurry mixture is usually about 15 to 20% bentonite; the remainder is water. Water for the drilling fluid will be obtained from a local water source near the staging area. Spent drilling fluids and cuttings will be collected and contained within the HDD staging area prior to disposal at a permitted landfill. According to the applicant, a truckload of cuttings from the HDD site will be hauled away a few times per week during HDD operations. The applicant will be available to provide additional details on the drilling operations at the hearing.

Once drilling operations have been completed, the drilling site will be demobilized. All equipment associated with this operation will be removed from the site. The temporary sound barrier and site containment materials will also be removed. A water truck and vacuum truck will be used to wash any remaining drilling fluid and mud from the site. Silt will not be washed into storm drains. Finally, all disturbed pavement will be restored. The remaining terrestrial segments of the project would then be completed as previously approved by the City. The remaining segments will include the construction of the manhole at the drill site where Tyco will continue the alignment up the Second Street right-of-way and install the two cables in separate trenches along with two other vacant selves for future cable expansion or replacement opportunities. The approved lease agreement allows Tyco the use of no more than four cables. The construction period the HDD approach is outlined on the following table:

Proposed Construction for the HDD Component of the Project

Activity	Approximate Duration
Site Preparation, Mobilization, Equipment Placing & Testing	1 week
Drilling of First Pipe	2 weeks
Drilling of Second Pipe	2 weeks
Site Cleanup and Demobilization	1 week
Contingency	1 week
Total	**7 weeks**

Analysis

Tyco has submitted a Precise Development Permit Amendment application and the Planning Commission may impose additional standards to improve the quality of development and to mitigate any environmental impacts. Some of the general criteria applicable to the amendment to the PDP application include the short-term impacts during construction and its relationship to the following:

- Distance from residential and commercial development.
- Noise, air quality or vibration that may be generated.
- Adequacy of mitigation measures.

Parking, setbacks, and other normal development standards are not applicable to this project, since the improvements will be located underground or on the ocean floor.

Regardless of the method of installation approved, the conditions of approval include the requirement that all work within the City is subject to review and approval by the Public Work's Department. The City will inspect all the work as it proceeds and ensure that all work is designed and constructed in accordance with all applicable local, state and federal regulations. With the incorporation of the recommended conditions of approval for this alternative, the project will comply with the applicable criteria set forth in the Planned Development Permit/Precise Development Plan section of the City's Zoning Code.

General Plan Consistency

The project, as amended, complies with the City's General Plan Conservation, Open Space, Land Use, Circulation/Transportation/Parking, Noise and Public Utilities Elements' goals and policies, as well as the City's Local Coastal Program and the California Coastal Act.

Pursuant to Section 65402 of the Government Code, Restriction on the Acquisition and Disposal of Real Property (attached), a local agency shall not dispose of any real property (sale, long term lease or easement) until the location, purpose and extent of such disposition has been submitted to and reported upon the planing agency having jurisdiction as to the conformity with the adopted General Plan or part thereof. The approved terms of the lease would be for a period of twenty-five years and cover the installation, maintenance, operation and retirement of the system. Since the fiber optic cables would be buried on the beach and in the street or greenbelt, and either buried or laid on the sea floor, the presence of these fiber optic cables would not be in conflict General Plan and Zoning goals of preserving open space or protecting the beach and ocean as a recreational resource. The approved lease agreement for Tyco's use of the City owned property is in conformance with the goals of the General Plan. The use of City owned land by Tyco is not affected by the change in the method of installation. A finding in the attached resolution affirms that the amended PDP is consistent with the City's General Plan.

Addendum to the EIR

The City is the lead agency relating to environmental determinations under CEQA, since Hermosa Beach has the greatest responsibility for supervising and approving the project as a whole. The City concluded that the appropriate method to ensure the adequate environmental analysis of the amendment was through the preparation of an Addendum to the certified Environmental Impact Report (EIR). While the certified EIR addressed boring in general terms under the discussion of alternatives, the Addendum is based on a specific project description developed by Tyco for a HDD approach from Second Street In addition, since the change to the project involves the selection of an alternative construction method over a relatively limited portion of the project, and Tyco will be required to incorporate all necessary practices and controls to avoid any new significant impacts or substantial increases in previously identified significant impacts, an

Addendum to the existing certified EIR is permitted under CEQA.

The Addendum to the Environmental Impact Report reviewed the potential environmental impacts relative to short-term and long-term implementation of the project as amended. The Addendum concluded that the environmental impacts would be short-term, limited to the duration of construction activities. The Addendum also reviewed the environmental impacts associated with directional drilling that were not specifically addressed in the previously certified EIR. The existing setting from the certified EIR is used as the existing setting for the Addendum, since the existing environment is unchanged. Below is a list of the primary potential impacts of directional drilling discussed in the Addendum:

- Construction Noise
- Traffic and Parking
- Air Quality/Water Quality
- Aesthetics

The significance criteria used for the Addendum are the same as those used in the certified EIR. The certified EIR analyzed in detail the impacts of terrestrial and marine construction associated with the project. Many of the mitigation measures adopted as part of the previously approved project would also apply to the project using the HDD approach. Appendix C of the Addendum includes a copy of the City-approved mitigation monitoring plan (MMP) and notes which measures would apply to the project with directional drilling. Tyco has also proposed best management practices (BMPs) that would avoid or mitigate any new significant impacts or substantial increases to previously identified significant impacts as outlined below.

Noise

The proposed project is considered a public utilities project and therefore is not subject to restricted hours of construction stated with the State Health and Safety Code. However, there will be noise generated during the short-term construction of a portion of the terrestrial segment using the HDD approach. The nearest residences and businesses are less than 50 feet from the drill rig and staging area. Residents adjacent to the bore site, public users of the Second Street beach access, and the adjacent businesses on Second Street at Hermosa Avenue would be affected by the short term construction noise for approximately six weeks, of which approximately 14 days are expected to involve actual drilling operations.

As analyzed in the Addendum, uncontrolled drilling noise levels, based on equipment use without implementation of the proposed Best management Practices (BMPs), are estimated to be approximately 88 dBA at 50 feet. Tyco has proposed BMPs to mitigate the noise generated during the short term construction, including constructing a sound barrier around the staging area, enclosure of drill and pump engines and use of a muffler on the rig and pump exhaust. The sound barrier proposed by Tyco around the staging area would be constructed from ¾" plywood and 2"x4" studs, and will be 8 feet tall or higher, as required to mitigate noise impacts to the surrounding area. Sound blankets will line the plywood barrier that will completely encircle the site. According to the applicant, based on their experience with HDD drilling in similar situations, it is expected that the proposed mitigation measures would result in approximately 10 to 15 dBA

of noise reduction. Tyco has also proposed to restrict all operations at the staging area to between the hours of 8:00 a.m. and sunset, Monday through Friday, and has proposed to avoid the peak summer season. Tyco is required to notify residents prior to start of construction. In addition, Tyco will be hiring a noise consultant to assist with the preparation of their engineering specifications for the project and with the actual design, implementation and operational aspects of the noise mitigation measures.

Although the drilling operations will result in elevated noise levels in and around the staging area during construction, noise levels will only be elevated during the daytime hours and will be temporary. This impact is therefore considered less than significant. Please see EIR Addendum for specific discussion of noise related impacts.

Circulation, Traffic and Parking

Under the proposed change, Second Street from Hermosa Avenue to Beach Street would be closed to local traffic for approximately six weeks. Access to all residences would be maintained, although detours will be required around the staging area on Second Street. Six public parking spaces would be occupied during this time for drilling operations. These impacts are construction related and short term. The applicant is preparing a traffic plan to safely divert traffic around the bore-site staging area and arranging for alternative parking for the affected public parking spaces. The traffic and parking control plan includes ensuring emergency access is maintained, residents and businesses are provided advance notification of construction or parking that may be temporarily displaced, all bike and pedestrian ways will be maintained during construction, any detours are safe and convenient, off-site staging areas of equipment, and hours of work in the rights of way to be approved by the City. The proposed drilling would occur outside of the peak summer season. No new or different marine transportation impacts would occur with implementation of the proposed change. Implementation of the HDD approach as proposed, combined with appropriate mitigation measures in the revised MMP, would not create any new significant transportation impacts nor substantially increase any previously identified transportation impacts.

Air and Water Quality

On a daily basis, the project using the HDD approach would result in a slightly lower amount of NOx emissions over the daily thresholds than the project using the direct burial landing approach. With implementation of the BMPs, in particular BMP A-3 (offset credits), the air quality impact of the project using the HDD approach would be basically the same as that of the project using the direct burial landing, and thus would not result in any new significant impacts to air quality or any substantial increase in previously identified air quality impacts.

Implementation of the proposed change would also result in temporary increases in turbidity and potential disturbance of a small quantity of existing contaminated sediment during bore breakthrough and initial cable jetting. These increases in turbidity and sediment disturbance are less than those associated with the direct landing analyzed in the EIR. Implementation of the HDD approach as proposed, combined with appropriate mitigation measures from the MMP, would not create any new significant water quality impacts nor substantially increase any previously identified water quality impacts.

Aesthetics

Implementation of the proposed HDD approach would result in temporary aesthetic impacts on beach users at the Second Street beach access, and on Second Street residents and businesses. The impact on beach users themselves would be less under the proposed HDD approach than under the direct burial landing approach (due to avoidance of trenching of cable on the beach), but the impact on residents around the drill site would be greater. These impacts are associated with the use and storage of heavy construction equipment and machinery in and around the project site during the estimated six weeks required for drilling activities. Only beach users located on the upper part of the beach or on the Strand in an area directly aligned with Second Street would likely observe and hear the construction activity. Beach users in other parts of the beach or Strand would not notice construction. Beach users using Second Street to access the beach would notice construction directly, while passing on the sidewalk. The applicant has proposed to provide a sound wall for attenuation of noise impacts. This sound wall would also prevent direct observation of drilling, which would further reduce the aesthetic impacts. In the lease, there are provisions for liquidated damages to the City should the project extend beyond the approved construction schedule. The HDD approach is not expected to result in any new significant aesthetic impacts nor substantially increase any previously significant aesthetic impacts. No new or different marine aesthetic impacts would occur with implementation of the proposed change.

Outside consultants were utilized to provide a third party peer review on behalf of the City of the environmental information provided by Tyco. According to their review for water quality, Tyco is utilizing "state of practice protocol" for this type of drilling. The City's consultant concluded that the methods and monitoring techniques proposed by Tyco will provide reasonable assurances that any potential impacts from the drilling operation will be less than significant.

In regards to noise, the City's consultant recommended to further reduce the nuisance impacts of drilling noise that additional conditions of approval be considered. The recommended conditions include:

- The noise attenuation barrier walls be used to completely surround the drill site with minimum wall height of no less than 8 feet above the highest point of any engine and/or exhaust stack, or 24 feet total height (whichever is lower). The final noise attenuation wall height shall be determined by acoustical study prepared in conjunction with the wall design for the project.
- That the barrier wall material should consist of fiberglass-filled acoustical curtains or panels with a Sound Transmission Class (STC) rating of at least 27 (STC-27) and they be designed to preclude structural failure due to such factors as winds, shear, shallow soil failure, earthquakes, and erosion as approved by the City's Public Works Director.
- A diesel engine acoustical enclosure of metal framed, fiberglass-filled panels be required for the drill rig, and any compressor and pumps, with all other internal combustion equipment using noise shrouds no less effective than those originally installed on the equipment. The final design of the enclosure shall be determined by acoustical study prepared for the project.
- High performance mufflers are used on all diesel engines in regular use on the drill site and the use of air impact wrenches or similar equipment used on drill pipe flange bolts conform

to all noise abatement requirements.

- With the exception of drilling operations, no heavy equipment is operated outside of those approved hours specified in the Resolution.
- No equipment setup, tear down, or initial drilling start-up operations may occur outside of those approved hours specified in the Resolution.
- No trucks involved in materials removal or delivery shall access the site outside of those approved hours specified in the Resolution.

These recommendations have been included as conditions of approval in the attached resolution.

In summary, the Addendum and the City's third party peer review found that environmental impacts remain primarily short term and there are no new significant long-term impacts associated with Tyco's amended proposal. All potential significant short-term impacts have been avoided or reduced to a less than significant level. Project modifications to reduce or avoid significant environmental impacts are included, as mitigation measures in the Addendum to the EIR. These recommended mitigation measures are incorporated into a revised Mitigation Monitoring Program. A condition of approval is included to ensure the City recovers all costs associated with the implementation of the Mitigation Monitoring Program. The implementation of the mitigation monitoring program will be an integral part of the success of the project. The mitigation measures will also be included as recommended conditions of approval to the Planned Development Permit/Precise Development Plan application. In addition, Tyco has informed the other state and federal regulatory agencies, including the CCC, Water Quality Board, and Army Corps of Engineers of the proposed amendment to allow the HDD approach.

Lease Agreement

The project as amended will continue to provide the City with the revenues agreed upon in the approved lease of city owned property. The City will receive funds from Tyco for a one time license fee, plus annual payments over the life of the agreement (25 years). The lease terms are unchanged. The lease will also cover Tyco's obligation to fund the costs of improvements to the beach, pier, bathrooms and construction of a new bathroom, plus inspection costs, ongoing maintenance and retirement and/or removal of the system at the end of the lease.

The Planning Commission public hearing was duly advertised in the newspaper, posted at the staging site and a mailing notifying all residents within 1000 feet of the staging area on Second Street of the public hearing date for Planning Commission was mailed out on May 9, 2002. The applicant is in the process of contacting residents in the area. To date, no formal written opposition has been received and any correspondence received prior to the Commission hearing will be presented to the Planning Commission at the hearing.

Recommendation:

The Planning Commission adopts the attached Resolution that:

1. Recommends the City Council approve the Addendum to the certified Environment Impact Report relating to amendment to PDP No. 01-01; and,
2. Approves the Amendment to the Planned Development Permit/Precise Development Plan No. 01-10 to allow the HDD approach at Second Street.

Bob Goldin
Project Planner

CONCUR:

Sol Blumenfeld, Director
Community Development Department

Attachments

1. Resolution
2. PDP application with alignment and staging area exhibits
3. Addendum to the EIR including the revised Mitigation Monitoring Program, support studies graphics, exhibits and pictures
4. December 2001 City Council report

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