

CHAPTER 18

TELECOMMUNICATIONS TOWERS, ANTENNAS AND RELATED FACILITIES

18-1 GENERAL, SCOPE AND APPLICABILITY

- A. GENERAL: The purpose of this chapter is to provide a set of standards for the development and installation of telecommunication towers, antennas and related facilities. The regulations contained herein are designed to protect and promote public health safety and the community welfare of Minidoka County and the Cities within, and to encourage managed development of telecommunications infrastructure, while not unduly restricting the development of needed telecommunications facilities.
- B. SCOPE AND APPLICABILITY: The County or respective City shall apply these regulations to accomplish the following:
1. Minimize adverse visual effects of telecommunication towers, antennas and related facilities through design and siting standards.
 2. Maintain and ensure that a non-discriminatory, competitive and broad range of telecommunications services and high quality telecommunications infrastructure consistent with the Federal Telecommunications Act of 1996 are provided to serve the community.
 3. Provide a process for obtaining necessary permits for telecommunications facilities while at the same time protecting the interests of the Minidoka County citizens.
 4. Protect environmentally sensitive areas of Minidoka County or the respective City by regulating the location, design and operation of telecommunication facilities.
 5. Encourage the use of alternative support structures, co-location of new antennas on existing telecommunication towers, camouflaged towers, and construction of towers with the ability to locate more than one provider.

Furthermore, this Chapter is not intended to regulate residential satellite dishes or residential television antennas that are used privately. Additionally it is not intended to regulate satellite dishes/antennas whose regulation is prohibited by Idaho Statutes or as preempted by Federal Law.

18-2 DEFINITIONS: For the purpose of this Ordinance, certain terms, phrases, or words used herein shall be defined as follows (these definitions are also included in Chapter 2):

ALTERNATIVE SUPPORT STRUCTURE: Clock towers, steeples, silos, light poles, water towers, buildings or similar structures that may support telecommunication facilities.

ANTENNA: Any system of wires, poles, rods, reflecting discs, or similar devices used for the transmission or reception of electromagnetic waves when such system is either external to or attached to the exterior of a structure. Antennas shall include devices having active elements extending in any direction, and directional beam type arrays having elements carried by and disposed from a generally horizontal boom that may be mounted upon and rotated through a vertical mast or tower interconnecting the boom and antenna support, all of which elements are deemed to be a part of the antenna.

ANTENNA, BUILDING MOUNTED: Any antenna, other than an antenna with its supports resting on the ground, directly attached or affixed to a building.

ANTENNA, GROUND MOUNTED: Any antenna with its base placed directly on the ground.

ANTENNA, UTILITY POLE MOUNTED: An antenna attached, without regard to mounting, to or upon an existing or replacement electric transmission or distribution pole, street light, traffic signal, athletic field light, utility support structure or other similar structure approved by the Minidoka County or respective City Planning and Zoning Department.

BUILDING: Any structure designed or intended for the support, enclosure, shelter or protection of persons, animals, chattels, or property of any kind, but not including fences or advertising signs.

HEIGHT, TELECOMMUNICATIONS TOWER: The distance measured from the original grade at the base of the tower to the highest point of the tower. This measurement excludes any attached antennas, protection devices (e.g. lightning rods) and lighting.

MONOPOLE: A telecommunication tower of a single pole design.

NAVIGABLE STREAM OR LAKE: As designated on the United States Geological Survey (USGS) map and/or the zoning maps of Minidoka County.

OPERATION (TELECOMMUNICATIONS): Means other than nominal use; when a facility is used regularly as an integral part of an active system of telecommunications it shall be deemed in operation.

PLATFORM (ANTENNAS): A support system that may be used to connect antennas and antenna arrays to telecommunication towers or alternative support structures.

SATELLITE DISH: A device incorporating a reflective surface that is solid, open mesh, or bar configured that is shell dish, cone, horn, or cornucopia shaped and is used to transmit and/or receive electromagnetic signals. This definition is meant to include, but is

not limited to, what are commonly referred to as satellite earth stations, TVROs (satellite television receive only) and satellite microwave antennas.

TELECOMMUNICATION FACILITY: A facility, site, or location that contains one or more antennas, telecommunication towers, alternative support structures, satellite dish antennas, other similar communication devices, and support equipment with is used for transmitting, receiving, or relaying telecommunications signals.

TELECOMMUNICATION FACILITY (CO-LOCATED): A telecommunication facility comprised of a single telecommunication tower or building supporting multiple antennas, dishes, or similar devices owned or used by more than one public or private entity.

TELECOMMUNICATION SUPPORT FACILITY: The telecommunication equipment buildings and equipment cabinets.

TOWER, TELECOMMUNICATION: Any structure that is designed and constructed primarily for the purpose of supporting one or more antennas, including camouflaged towers, lattice towers, guy towers, or monopole towers. This includes radio and television transmission towers, microwave towers, and common-carrier towers

TOWER, CAMOUFLAGED: Any telecommunication tower that due to design or appearance entirely hides, obscures, or conceals the presence of the tower and antennas.

TOWER, GUYED: A telecommunications tower that is supported in whole or in part by guy wires and ground anchors or other means of support besides the superstructure of the tower itself.

TOWER, LATTICE: A telecommunication tower that consists of vertical and horizontal supports and crossed metal braces.

TOWER FARM: A parcel of ground on which multiple telecommunication towers or antennas are located and clustered together on a single parcel for economic, aesthetic, or other reasons.

18-3 EXEMPTIONS: The following shall be permitted without County or City review and approvals:

- A. The use of all television antenna, satellite dishes and receive only antennas, provided that the primary use of the property is not a telecommunications facility and that the antenna use is accessory to the primary use of the property.
- B. Amateur Radio: This Chapter shall not govern the installation of any antenna and their supporting towers, poles and masts that is owned and/or operated by a federally licensed amateur radio operator or, is used exclusively for receive-only antennas.

- C. Mobile services providing public information coverage of news events or a temporary or emergency nature.
- D. Free standing (Ground Mounted Antenna) antennas (not supported on or attached to a building) and their supporting towers, poles or masts and their equipment buildings one hundred twenty (120) square feet or less in size, may be installed without a zoning permit when the overall height of the antennas and their supporting structures do not exceed a height of twenty (20) feet above the original grade at the site of the installation.
- E. Antennas installed on, or attached to, any existing building (Building Mounted Antenna), an existing telecommunication tower, or alternative support structure and their equipment buildings one hundred twenty (120) square feet or less in size, when the height of the antenna and its supporting tower, pole or mast is twenty (20) feet or less above the highest part of the building or alternative support structure to which it is attached. Antennas, installed on, or attached to, any existing building, existing telecommunication tower, or alternative support structure and their equipment buildings.
- F. Utility Pole Mounted Antennas if the height of the antenna is twenty (20) feet or less above the highest part of the utility pole.

18-4 PERMITTED/PROHIBITED LOCATIONS:

- A. PERMITTED LOCATIONS: Telecommunications facilities may be permitted in Zoning Districts as established by the Official Schedule of Zoning Regulations.
- B. PROHIBITED LOCATIONS: No telecommunications facilities will be allowed in the following areas:
 - 1. Historic sites, as defined by local, state and/or federal regulation.
 - 2. Critical species habitats, as defined by local, state and/or federal regulation.
 - 3. Wetlands, as defined by local, state and/or federal regulation.
 - 4. Floodplains, as defined by local, state and/or federal regulation.

18-5 SPECIAL USE PERMIT: When required by the Official Schedule of Zoning Regulations, an application will be submitted for approval pursuant to the procedure established in Chapter 15 for the location and construction of telecommunication towers or associated structures.

- A. SUBMITTAL INFORMATION: Applications for telecommunication towers and associated structures will provide the following information:
 - 1. Completed Special Use Permit application.
 - 2. Original signature of applicant and landowner (if the telecommunication facility is located in an easement or pursuant to a ground lease, the beneficiaries of the easement or ground lease and underlying property owner must authorize the application.).
 - 3. The identity of the carrier, provider, applicant, landowner and service provider and their legal status.

4. The name, address and telephone number of the officer, agent and/or employee responsible for the accuracy of the application.
5. A plat of survey, showing the parcel boundaries, tower, facilities, location, access, landscaping and fencing.
6. A written legal description of the site.
7. In the case of a leased site, a lease agreement or binding lease memorandum, which shows on its face that it does not preclude the tower owner from entering into leases on the tower with other provider(s) and the legal description and amount of property leased.
8. A description of the telecommunications services that the applicant offers or provides, to persons, firms, businesses or institutions.
9. Federal Communication Commission (FCC) license numbers and registration numbers, if applicable.
10. Copies of Finds of No Significant Impacts (FONSI) statement from the Federal Communication Commission (FCC) or Environmental Impact Study (EIS), if applicable.
11. An alternatives analysis prepared by the applicant or on behalf of the applicant by its designated technical representative, subject to the review and approval of the Planning and Zoning Commission, which identifies all reasonable, technically feasible, alternative locations and/or facilities which could provide the proposed telecommunication service. The intention of the alternatives analysis is to present alternative strategies that could minimize the number, size, and adverse environmental impacts of facilities necessary to provide the needed services to the County or respective City. The analysis shall address the potential for co-location and the potential to locate facilities as close as possible to the intended service area. It shall also explain the rationale for selection of the proposed site in view of the relative merits of any of the feasible alternatives. Approval of the project is subject to the review and approval of the Planning and Zoning Commission. The County or respective City may require independent verification of this analysis at the applicants expense, the consultant will be chosen by the Planning and Zoning Commission from a list mutually agreed upon by the County or respective City and the Telecommunications Industry.
12. Plans indicating security measures (e.g. access, fencing, lighting, etc.).
13. Tabular and map inventory of all of the applicant's existing telecommunications towers that are located within Minidoka County or respective City and including all of the applicant's existing towers within fifteen hundred (1,500) feet of the County or respective City boundary. The inventory shall specify the location, height, type, and design of each of the applicants existing telecommunication towers, and the ability of the tower or antenna structure to accommodate additional co-location antennas.

14. A report prepared by an Engineer licensed by the State of Idaho certifying the structural design of the tower and its ability to accommodate additional antennas.
 15. Proof of liability coverage.
 16. Such other information as the Planning and Zoning Commission may require.
 17. Proof of notification to and request for approval from the Federal Aviation Administration with respects to tower location, height and lighting requirements.
- B. CO-LOCATION: As a condition of approval of the Special Use Permit and/or building permit all tower owners shall make available unused space for co-location of other telecommunication facilities, including space for those entities providing similar, competing services. Co-location is not required if the host facility can demonstrate that the addition of the new service or facilities would impair existing service.

All telecommunication support facilities shall be designed to facilitate site sharing. Special Use Permits or building permits for new telecommunication towers will not be issued until the applicant demonstrates that co-location on an existing facility is not feasible. Feasibility shall be determined through a review process by the commission.

- C. TECHNICAL REVIEW: The Planning and Zoning Department, upon direction of the Minidoka County or respective City Planning and Zoning Commission, shall employ on behalf of the County or respective City an independent technical expert to review materials submitted. The consultant will be chosen from a list mutually agreed upon by the County or respective City and the applicant. The applicant shall pay all the costs of said review. The payment to the Planning and Zoning Department shall be due upon receipt of the invoice. All fees and charges accumulated for the technical review must be paid in full prior to the issuance of the Special Use Permit.
- D. REQUIRED SUBMITTALS FOLLOWING PERMIT APPROVAL: For each telecommunication tower or associated structure Special Use Permit approved by the Minidoka County or respective City Planning and Zoning Commission the applicant shall submit the following before the Special Use Permit will be issued:
1. Copies of the determination of no hazard from the Federal Aviation Administration (FAA) including any aeronautical study determination or other findings and other agencies, if applicable.
 2. Copies of any Environmental Assessment (EA) reports on Form 600 or Form 854 submitted to the Federal Communication Commission (FCC), if applicable.

3. Copies of any filings submitted to the Federal Communication Commission (FCC) shall be submitted within thirty (30) days of filing, subject to the review of the Administrator.
4. Proof of Bond as security for removal.

18-6 ANNUAL INFORMATION REPORT

- A. PURPOSE: The purpose of the annual review report is to provide the County or respective City with accurate and current information concerning the telecommunications tower owners and providers who offer or provide telecommunications services within the County or respective City, to assist the County or respective City in enforcement of this Chapter, and to assist the County or respective City in monitoring compliance with the conditional use permit.
- B. REQUIRED SUBMITTALS: Upon request and when directed and authorized by the Board or applicable Council, all telecommunications tower owners of any new or existing telecommunication tower shall submit annually on or before January 31 of each year, to the Planning and Zoning Department a Telecommunications Facility Annual Information Report. The Annual Report shall include the following:
 1. The tower owner name(s), address(s), phone number(s), contact person(s)
 2. Annual review fee
 3. Proof of bond as security for removal.
 4. List of all co-locating operators utilizing the tower.
- C. ANNUAL REPORT FEE: Following the Special Use Permit approval, and every year thereafter the tower owner shall submit, on or before January 31 of each year, to the Planning and Zoning Department an annual review fee as established by the Minidoka County Board of County Commissioners or respective City Council for each tower site. The fee submittal is the responsibility of each tower owner. Failure to provide this information shall result in a civil forfeiture of \$300.00 per day until the Administrator receives the information.

18-7 REMOVAL AND SECURITY FOR REMOVAL

- A. REMOVAL: It is the express policy of Minidoka County or respective City that telecommunications facilities be removed once they are no longer in use and not a functional part of providing telecommunication service and that it is the telecommunications tower owner's responsibility to remove such facilities and restore the site to its original condition or a condition approved by the Minidoka County or respective City Planning and Zoning Commission. This restoration shall include removal of any subsurface structure or foundation, including concrete, used to support the telecommunications facility down to five feet below the surface. After a telecommunications facility is no longer in operation, the tower owner shall have ninety (90) days to effect removal and restoration unless weather prohibits such efforts.

- B. SECURITY FOR REMOVAL: The telecommunications tower owner shall provide to Minidoka County or respective City, prior to the issuance of the Special Use Permit or the issuance of a building permit, a performance bond in the amount of Twenty Thousand Dollars (\$20,000) or a bond equal to a written estimate from a qualified tower removal contractor to guarantee that the telecommunications facility will be removed when no longer in operation. Minidoka County or respective City will be named as obligee in the bond and must approve the bonding company.

18-8 PRE-EXISTING TELECOMMUNICATION TOWERS

- A. NON-CONFORMING AND CONFORMING: Telecommunication towers, and facilities may add to, move or replace the tower and facilities upon approval of the Administrator. An existing tower may be replaced by the same size of tower, increased in height a maximum of fifty (50) feet, and/or relocated or reconstructed within fifty (50) feet of its existing location to accommodate co-location subject to meeting all the applicable sections of this Chapter. Routine maintenance and repair on telecommunications facilities is permitted.

- B. EXISTING USE REVIEW:

1. TOWERS STRUCTURALLY CAPABLE FOR CO-LOCATION: Beginning the effective day of this ordinance, all telecommunications tower owners, applicable to the requirements of this Chapter operating in Minidoka County or respective City prior to the adoption of this Chapter, shall provide the information required under section 17-5 (except proof of bond and proof of insurance), of this Chapter and pay the annual fee for tower site on or before January 31 of each year. Failure to provide this information shall result in a civil forfeiture of \$ 300 per day until the Administrator receives the information.
2. TOWERS STRUCTURALLY INCAPABLE FOR CO-LOCATION: Beginning the effective day of this ordinance, all telecommunications tower owners, applicable to the requirements of this Chapter operating in Minidoka County or respective City prior to the adoption of this Chapter, shall provide the information required under section 17-5 (except proof of bond and proof of insurance), and submit documents that the tower is structurally incapable of co-location, and pay a one time fee equivalent to the annual fee for each tower site on or before the following January 31, Failure to provide this information shall result in a civil forfeiture of \$300.00 per day until the Administrator receives the information.

18-9 ENFORCEMENT

- A. REVOCATION: Grounds for revocation of the Special Use Permit telecommunication towers and associated structures, shall be limited to one of the following findings:

1. The owner of such site, service provider and/or tower owner fails to comply with the requirements of this Chapter.
 2. The permittee has failed to comply with the conditions of approval of the Special Use Permit.
 3. The facility has not been properly maintained.
- B. REVOCATION PROCESS: The following is the procedure for revocation of a Special Use Permit for telecommunication towers and associated structures:
1. The owner of such site, service provider and/or tower owner shall be notified by certified mail of noncompliance by the Minidoka County or respective City Planning and Zoning Department.
 2. The owner shall comply with such notice within thirty (30) days to the satisfaction of the Administrator.
 3. If compliance is not obtained within thirty (30) days, the Administrator shall notify the Minidoka County or respective City Prosecuting Attorney of the noncompliance and proceed with the revocation process. (Staff to adjust for seasonal limitations may extend this time period.)
- C. ABANDONMENT: Any antenna or tower that is not operated for a continuous period of twelve (12) months shall be considered abandoned. Time may be extended upon review and approval of the Administrator, if the tower owner demonstrates a good faith effort to secure new tenants. In such circumstances, the following shall apply:
1. The owner of such antenna or tower shall remove said antenna and or tower including all supporting equipment and building(s) within ninety (90) days of receipt of notice from the Planning and Zoning Department notifying the owner of such abandonment. If removal to the satisfaction of the Planning and Zoning Department does not occur within said ninety (90) days, the Minidoka County Board of County Commissioners or respective City Council may order removal utilizing the established bond and salvage said antenna or tower and all supporting equipment and buildings(s). If there are two or more users of a single tower, then this provision shall not become effective until all operations of the tower cease.
 2. The recipient of a conditional use permit for a telecommunications facility under this ordinance shall notify the Planning and Zoning Department when the facility is no longer in operation.

18-10 STRUCTURAL DESIGN AND ENVIRONMENTAL STANDARDS

- A. TOWER, ANTENNA AND FACILITIES REQUIREMENTS: All telecommunication facilities shall be designed to blend into the surrounding environment to the greatest extent feasible. To this end, all of the following measures shall be implemented:
1. All telecommunication facilities shall comply at all times with all Federal Communication Commission (FCC) rules, regulations, and standards. To

that end no telecommunication facility or combination of facilities shall produce at any time power densities in any inhabited area that exceed the Federal Communication Commission (FCC) adopted standard for human exposure, as amended, or any more restrictive standard subsequently adopted or promulgated by the Federal Government. All telecommunication tower and antenna shall meet or exceed the standards and regulations, in place at the time of the issuance of the Special Use Permit, of the Federal Aviation Administration (FAA), the Idaho State Bureau of Aeronautics, Occupational Safety and Health Association (OSHA), the Federal Communication Commission (FCC) and authority to regulate towers and antennas.

2. Telecommunication towers shall be constructed out of metal or other nonflammable material, unless specifically permitted for monopole applications.
 3. All ground mounted telecommunication towers shall be self-supporting monopoles or lattice towers except where satisfactory evidence is submitted to the Planning and Zoning Commission that a guyed tower is required.
 4. Satellite dish and parabolic antennas shall be situated as close to the ground as possible to reduce visual impact without compromising their function.
 5. Telecommunication support facilities (e.g. equipment rooms, utilities, and equipment enclosures) shall be constructed out of non-reflective materials (visible exterior surfaces only). Telecommunication support facilities shall be no taller than one story fifteen feet (15') in height, measured from the original grade at the base of the facility to the top of the structure, and shall be designed to blend with existing architecture in the area or shall be screened from sight by mature landscaping, and shall be located or designed to minimize their visibility.
 6. Telecommunications towers, facilities and antennas shall be designed and constructed in accordance with the Uniform Building Code, other applicable State and Federal requirements.
 7. The maximum height of an antenna platform located on a roof top shall be twenty (20) feet above the roof.
 8. Telecommunication facilities shall not interfere with or obstruct existing or proposed public safety, fire protection or supervisory Controlled Automated Data Acquisition (SCADA) operation telecommunication facilities. The applicant at no cost to the County or respective City shall correct any actual interference and or obstruction.
- B. **HEIGHT:** The height of a telecommunication tower shall be measured from the original grade at the base of said tower to the highest part of the tower itself. In the case of building mounted towers the height of the tower includes the height of the portion of the building on which it is mounted. In the case of "crankup" or

other similar towers whose height can be adjusted, the height of the tower shall be the maximum height to which it is capable of being raised.

C. LIGHTING: Telecommunication towers shall not be artificially lighted unless required by the Federal Aviation Administration (FAA) or other applicable regulatory authority. When required by the FAA white strobe lights during the day will be permitted with red flashing lights required from dusk to dawn.

D. SITE DEVELOPMENT, ROADS AND PARKING:

1. A leased parcel intended for the location of new telecommunication tower(s) and associated structure(s) shall maintain a minimum parcel size of twenty-five hundred (2,500) square feet. The Minidoka County or respective City Planning and Zoning Commission may modify the leased parcel size requirement after public hearing and review.

2. A parcel owned by the telecommunication carrier and/or provider and intended for the location of new telecommunication tower(s) and equipment building(s) shall meet the minimum size requirement of the ordinance.

3. All sites must be served by a minimum thirty (30) foot wide easement with a turn around. The Minidoka County or respective City Planning and Zoning Commission may modify the easement and turn around requirement after public hearing and review. All sites shall use existing access points and roads whenever possible. The respective County Highway District or the applicable road jurisdiction shall approve the access point to the site.

E. VEGETATION PROTECTION AND FACILITY SCREENING:

1. All telecommunications facilities shall be installed in such a manner so as to minimize disturbance to existing native vegetation and shall include suitable mature landscaping to screen the facility, where necessary to be compatible with adjoining and surrounding areas. For purposes of this section, "mature landscaping shall mean trees, shrubs or other vegetation of a size that will provide the appropriate level of visual screening.

2. Upon project completion, the owner(s)/operator(s) of the facility shall be responsible for maintenance and replacement of all required vegetation and landscaping.

3. Facility structures and equipment, including supporting structures, shall be located, designed and screened to blend with the existing natural or built surroundings, so as to reduce visual impacts.

F. FIRE PREVENTION: All telecommunication facilities shall be designed and operated in accordance with all applicable codes regarding fire prevention.

G. NOISE AND TRAFFIC: All telecommunication facilities shall be constructed and operated in such a manner as to minimize the amount of disruption caused to nearby properties. To that end all the following measures shall be implemented for telecommunication facilities:

1. Noise producing construction activities shall only take place on weekdays (Monday through Saturday, non-holiday) between the hours of 6:00 a.m. and 6:00 p.m., except in times of emergency repair.
2. Backup generators shall only be operated during power outages and for testing and maintenance purposes.

18-11 SEPARATION AND SETBACK REQUIREMENTS:

A. SEPARATION REQUIREMENTS: Minimum Separation required between Telecommunication Towers (by tower type).

Tower type	Lattice	Guyed	Monopole > 85 ft.
Lattice	1500 ft.	1500 ft.	750 ft.
Guyed	1500 ft.	1500 ft.	750 ft.
Monopole > 85 ft.	750 ft.	750 ft.	750 ft.

1. Two (2) or more towers may be permitted to be located within one hundred (100) feet of each other subject to approval of Special Use Permit or when located in a Tower/Antenna Farm.
2. Camouflaged towers are exempt from separation between towers requirement listed above.
3. Even when reduction in separations are allowed location or placement shall comply with separate setback requirements.

B. SETBACK REQUIREMENTS: All setbacks shall be measured from the base of the tower or structure and are required as follows:

3. Setback requirements shall apply to new towers and antennas, existing towers or antennas are allowed to remain in present location.
4. Setbacks from all habitable residential buildings, except buildings located on the subject parcel, shall be a distance equal to 125% of the height of the tower.
5. Setbacks from all historic sites and districts shall be a distance equal to 125% of the height of the tower from historic sites and districts.
6. Setbacks from property lines shall be setback a minimum of fifty (50) feet from all property lines. This requirement does not apply to the boundary of the leased parcel unless the leased parcel boundary is also a property line. Under special circumstances the Minidoka County or respective City Planning and Zoning Commission may modify this setback requirement after public hearing and review.
7. Setback from the High Water Mark of the Snake River shall be a minimum of 125% of the tower height measured from the natural High Water Mark.
8. All guy wire anchors shall be at least twenty-five (25) feet from all property lines. Under special circumstances the Minidoka County or

respective City Planning and Zoning Commission may modify this setback requirement after public hearing and review.

18-12 PERMITS

- A. SPECIAL USE PERMIT: A Special Use Permit is required for all telecommunication towers and associated structures as established by the Official Schedule of Zoning Regulations. The Administrator shall approve co-location on facilities previously approved by Minidoka County or respective City Planning and Zoning Commission administratively, provided that the applicant complies with the provisions of this Chapter and provides a completed application and permit fee.
- B. BUILDING PERMIT: A Building Permit will be required for all telecommunication towers and associated structures. No building permit will be required for the installation of additional equipment directly to the tower or antenna for the purpose of co-location.

