

Questions and Answers

Section 1. Questions submitted separately

Section 2. Questions from Industry Forum

Section 1

Answers to questions submitted separately and not
addressed at the Industry Forum

Question 1.

Section 1.5.1, page 7- Will the Army be willing to discuss or negotiate potential alternatives to the track requirements? For example:

- a. Would the government be willing to accept a proposal of alternate test track shape or length (such as a circle and a straightaway vs. an oval) that met the minimum radius and design specifications?
- b. Will there be a potential for weight requirements to be negotiable based on final design?
- c. What is the expected maximum speed that wheeled or tracked vehicles travel on the gravel track?

Answers

- a. The Army has a critical need for the capability to test vehicles at higher sustained over the road speeds, for both paved and unpaved roads. Yuma Proving Ground (YPG) has the Desert/Hot Weather part of this responsibility.

Table 1 provides a prediction of achievable maximum speeds for various classes of future Army vehicles while. . .

Table 2 provides YPG's anticipated yearly sustained high-speed endurance test miles for each category. There is also the need to conduct safety and performance testing of these vehicles at comparable speeds and temperatures.

All proposals that provide the desired capabilities whether it be a single joint use facility for all classes of vehicles, separate facilities, or a combination of joint use new facilities and upgrades to existing facilities will be considered.

Since test requirements are different for sustained speed endurance testing versus performance testing all configurations that provide the required capabilities will be given equal consideration. Ovals with minimum of 1-mile straightaway, tri-oval with at least two 1-mile straightaways, or a circle track for endurance testing combined with a 2-mile straightaway for performance testing will be equally considered along with other potential configurations.

The Army requires a turn radius of at least 1600 ft. to minimize lateral forces on the test vehicle.

Table 1 Goals for Paved Road Sustained Test Speeds

Wheeled Vehicles					Tracked Vehicles
High Speed, Agile Light Vehicles	Wheeled Combat & Derivative Vehicles 6x6, 8x8	Medium Transport & Support Vehicles w/wo Trailers	Heavy Transport Vehicles w/wo Trailers	Tank Transporters	
WT < 20,000 lbs	WT 20,000 to 60,000 lbs	WT 20,000 to 80,000 lbs	Wt 80,000 to 140,000 lbs	To 238,000 lbs	All
Axle Loads to 10,000 lbs	Axle Loads to 15,000 lbs	Axle Loads to 20,000 lbs	Axle Loads to 25,000 lbs	Axle Loads to 30,000 lbs	N/A
Max Speed 120 MPH	Max Speed 110 MPH	Max Speed 100 MPH	Max Speed 90 MPH	Max Speed 60 MPH	Max Speed 50 MPH
Examples:	Examples:	Examples:	Examples:	Examples:	Examples:
Replacement HMMWV	Improved Stryker	Family of Medium Tactical Vehicles (FMTV)	Uprated Palletized Load Systems	Uprated Tank Transporter	Bradley Fighting Vehicle
Military Derivatives of Private Sector Vehicles	Uprated FCS	Palletized Load System (PLS) w/o Trailer	M915/M916 Line Haul Trucks w/trailers	Heavy Equipment Transporters	Abrams Tank
Future High Agility Vehicles	Future Wheeled Combat and Direct Support Vehicles	Future Tactical Truck System (Army)		M911 Tractor w/Abrams Tank Payload	

Source: (draft) Test Operations Procedure (TOP) 2-2-506
Endurance Testing of Wheeled and Tracked Vehicles

Table 2 Anticipated Yearly Use of High Speed Paved Test Tracks

Wheeled Vehicles					Tracked Vehicles
High Speed, Agile Light Vehicles	Wheeled Combat & Derivative Vehicles 6x6, 8x8	Medium Transport & Support Vehicles w/wo Trailers	Heavy Transport Vehicles w/wo Trailers	Tank Transporters	
WT < 20,000 lbs	WT 20,000 to 60,000 lbs	WT 20,000 to 80,000 lbs	Wt 80,000 to 140,000 lbs	To 238,000 lbs	All
Axle Loads to 10,000 lbs	Axle Loads to 15,000 lbs	Axle Loads to 20,000 lbs	Axle Loads to 25,000 lbs	Axle Loads to 30,000 lbs	N/A
Max Speed 120 MPH	Max Speed 110 MPH	Max Speed 100 MPH	Max Speed 90 MPH	Max Speed 60 MPH	Max Speed 50 MPH
35,000 Miles	30,000 Miles	15,000 Miles	15,000 Miles	5,000 Miles	NA Use Dyno Track

Answers cont.

- b. One of the key points from the Industry Forum was that YPG is willing to continue to use the existing Dynamometer Course for testing tracked vehicles (repaving required). YPG would also test the heaviest wheeled vehicles on the Dynamometer Course if that course was upgraded for higher sustained speed testing.

The Army's fleet of wheeled vehicles is road legal on Federal Highways. This is achieved by adding axles to keep individual axle loads within the 25,000 lb allowable limit.

- c. Table 1 provides the anticipated top speeds of the Army's future vehicles or upgrades to current vehicles. Experience from current operations indicates that crews operate at the maximum possible over the road speeds regardless of on paved or unpaved roads. For planning purposes 90 MPH would be considered the highest practical burst speed for operation on unpaved roads with sustained speeds on the order of 70 MPH.

Question 2.

Section 1.5.1, page 6- This section discusses "unrestricted priority use" could the Army please define:

- a. The amount and extent of use of the tracks that the Army is expecting.
- b. The process and timing by which the Army will notify the lessee of their intent to use. For example, will the lessee be notified of expected Army testing schedules annually, monthly, or weekly?
- c. What protections will be in place for the rights and interests of the lessee?
- d. Does this include exclusive use, or will the track be available for joint usage for testing?

Answers

- a. A key point made during the Industry Forum was that the lessee/developer "owns" what is inside the fence. This includes not only the facilities but also responsibilities for meeting overall security requirements (eg. control of Foreign National visitors), compliance with environmental protection requirements, and other applicable Federal and State regulations.

The operational concept has joint use of facilities both inside and outside the fenced EUL area on a scheduled basis.

Table 2 provided anticipated endurance miles by class of vehicle per year for sustained high-speed facilities. Safety and performance testing would be in addition to endurance testing.

The attachment "Test Scheduling" is provided as an outline of how the Army envisions the "joint use" process to work. The attachment "Security Requirements" is a draft of how security needs of both parties will be met for joint use of facilities. These procedures would be formalized during preparation of the Development Plan.

- b. See above
- c. The lessee essentially "owns" the site for the duration of the lease. Details will be negotiated as part of the Development and Lease Plans.
- d. Generally all test courses, inside and outside the EUL should be available to either partner with periods of "exclusive use" jointly scheduled.

Question 3.

Section 1.5.1, page 6- This section discusses "emergency situations," could the Army please define:

- a. Under what circumstances will these situations arise?
- b. How often are these situations expected to arise?
- c. How often have they arisen in the past?
- d. Will there be a limit on the number of hours or days of duration of these situations?
- e. What level of compensation will the Army provide to compensate for the interruption of business if the situation is of extended duration?

Answers

U.S. Army Yuma Proving Ground is a military installation. YPG will be a part of responses to national emergencies. Should one of these "emergency situations" occur, the installation will be staffed with only essential personnel until the situation is clarified.

This has not occurred in the past and probability of a future incident is low. However, as strategic planners looking forward to a working relationship of 50 years or longer the possibility has to be stated.

All details of the joint agreement will be worked as part of the business plan.

Additional Clarifying Questions

Business Opportunity

Question 4.

Section 1.4, page 5- Please clarify what sublease rights and restrictions will be provided to the selected developer related to site/facility? For example, what will be approval processes or potential restrictions for potential subtenants (including foreign nationals) to be users of test track and facilities?

Answer

The sublease standard is to restrict anyone on the government's antiterrorism list. The Lessee will have the right to sublease but will require the Lessor approval of all sublessees not to be "unreasonably withheld or delayed". Users of the facility at all times still have to adhere to Yuma Proving Ground security access requirements regardless. These access and background requirements are discussed in more detail in the Security Requirements attachment.. The other excluded parties for sublessees are those excluded from federal procurement. Parties excluded for procurement/and or terrorism are: (i) on the most current "List of Parties Excluded from Federal Procurement and Nonprocurement Programs" published at <http://epls.arnet.gov/>, as said list may be updated from time to time, (ii) a country listed in Publication 10535, Patterns of Global Terrorism, available from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402 and available at www/global/terrorism/annual_reports.html, (collectively "Non-Qualifying Parties").

Question 5.

Section 3.1, page 13- If a corporation enters into an agreement to lease, can a joint venture agreement with another corporation be executed at a later date to share in the project execution?

Answer

Yes. Keep in mind the answer to question 4. Also note that the selected developer is primary and the Army would possibly request the same source selection information on the other corporation.

Questions 6-9

Minimum Army Requirements

6. Section 1.5.1, page 7, part A- Does the Army plan to test tracked vehicles on the paved or gravel track? If yes, how often, and will any costs of repaving or gravel maintenance be reimbursable? Will the lessee be expected to pay for ongoing maintenance of the gravel track?
7. Section 3.9.2, page 19, Factor C: Please define “#81 tank mix” described as the surface material of the government.
8. Section 3.9.2, page 20, Factor E- Could the Army specify what vehicles and type of testing will be performed on the “Ride, Handling, and other dynamic test courses?” How is this different from the paved acceleration pad described in section B of the Minimum Army Requirements section?
9. Factor D- Will the specifications for the U.S. Army Test and Evaluation Command Dynamic Test Procedure TP-RT-M-DY-03-02A be made available prior to the final NOL for cost estimating purposes?

Answers

6. The Army has a need to test wheeled and tracked vehicles on both paved and unpaved road courses. One of the clarifying issues of the Industry Conference was:

Test Course Maintenance – The primary user will be responsible for long-term wear and tear maintenance. The Army would be responsible for repairs to developer constructed courses inside the fenced EUL area due to test incidents during Army testing.

If the options of upgrading Army facilities or constructing separate facilities for testing the Army’s heavy vehicles is chosen, then the Army would have responsibility for maintenance of those test courses.
7. The term “81 Tank Mix” does not translate directly to current highway design guidelines. The paved courses intended to meet Army requirements are to be constructed to Federal Highway standards using the weights, axle loadings, and speeds as per Table 1. Use factors (Equivalent Single Axle Loading- ESAL) can be derived using the projected track use as per Table 2. Additional information on vehicle configurations and axle arrangement is available on the web site under: Description of Vehicles.
8. All wheeled Army vehicles will need to be tested for lateral acceleration limits and other performance parameters on a suitable large paved

surface. . . for consistency of terminology this will be referred to as a “skid pad”. . . This requirement can be met by providing a separate skid pad or one integrated with the high-speed track/straightaway for vehicles up to some limit (80,000 lb GVW preferred) with wheeled vehicles above that limit being tested on the upgraded/repaved Dynamometer Course/Evasive Maneuver Area.

9. Information on test services has been extracted from U.S. Army Test and Evaluation Command Dynamic Test Procedure TP-RT-M-DY-03-02A, and is posted on the website under “Shock & Vibration Courses.”

Development Plan

Question 10.

Section 3.9.2, page 19, Factor B—Please clarify the level of detail that will be required for “construction quality drawings.” For example, would the government be willing to accept a combination of conceptual drawings, high-level schematic designs, layouts and renderings?

Answer

This requirement is changed to reflect that proposals, not final designs, are to be evaluated. The government will accept conceptual drawings, high-level schematic designs, layouts, and renderings for competitive evaluation.

The Development Plan and related joint actions will refine actual detailed designs for facilities intended to satisfy the Army Requirements.

Question 11.

Section 3.9.2, page 19, Factor B—Please provide detail on the procedures that the Army will take to ensure that any industry-sensitive intellectual property (such as design plans) included in proposal will not be shared or disclosed to the eventual lessee.

Answer

The standard procedure is that proposals are locked up in the COE office in Baltimore. Our consultants take custody for transport to the Source Selection Board site. Our consultants have signed confidentiality/non-disclosure agreements. No data from any proposal is ever shared with a selected developer on any EUL. After developer is selected all of the proposals from developers that were not selected are destroyed, except for

one copy which is kept locked up at the COE Baltimore office to comply with government regulations.

Question 12.

Section 3.9.2, page 19, Factor B—Could the Army please provide more information concerning the following requirements on YPG for the purposes of creating cost estimates:

- a. The availability of utilities
- b. The water-table
- c. Waste-treatment requirements on the installation
- d. Known environmental constraints

Answer

- a. As stated at the Industry Forum, water and electrical power can be obtained through Yuma Proving Ground. Water is the most critical and would be available from within YPG allocation from the State of Arizona.
- b. The water table in the area is at approximately 300-400 feet. The Army has a nearby well (Dynamometer Course area) which produces 200 gal/min.
- c. YPG uses septic tank systems at outlying facilities such as the HWTC.
- d. The applicable State and Federal environmental regulations are posted to the EUL website along with the project Environmental Assessment (EA).

Question 13.

Section 3.9.2, page 19, Factor B—Since information regarding utilities and other constraints is not yet available, will the requirement for an “estimated cost to complete” be satisfied with high-level estimates of total costs for the minimum requirements?

Answer

Yes.

Question/Comments 14.

Test Scheduling:

- Mutual sharing of test courses not feasible under advanced scheduling requirements
- While it would be possible to project test course use for Durability / Endurance test activities, the majority of our hot weather testing is based on development test protocol.
- Flexibility is necessary in the development test environment, as true development work requires the protocol to support ever changing testing schedules.
- Possibility that the Army could enforce priority status on the use of tracks, and limit access to the test groups during summer months is of major concern. It is not feasible to expect engineers from around the globe would be agreeable to the possibility of not being able to test as scheduled.
- While we would not be in disagreement to provide for the upgrade of the high-speed gravel road course, we actually have testing requirements which would also be dependant upon access to a high-speed gravel track. Shared use considerations with equal priority would be requested.
- Will a dispute resolution process be utilized when both sides need to claim testing priorities at the same time? Who will have final authority to determine which entity prevails, or is it automatically ruled in favor of the Government activities?

Answer

The basic premise is that facilities will be shared use with the needs of both parties fully met within the needed timeframe.

As stated at the Industry Forum the lessee/developer will “own” the area inside the fence. The needs of both parties will be met by a mutual scheduling process that ensures all needs are met. Attachment 1 is a draft of the “Test Scheduling” process that will be finalized during negotiations related to preparation of the Development Plan.

Attachment 2 is a draft of “Security” procedures which are intended to meet the security needs of both parties even during joint use of facilities. This guideline would also be finalized during negotiations related to preparation of the Development Plan.

Question/Comments 15.

Safety Concerns

- Mixed use of the tracks between passenger car and military vehicles at the same time is of major safety concern. The option to limit testing of the tracked vehicles and vehicle exceeding 140,000 lb still does not address the incompatibility of passenger cars testing at high speed along side of vehicles in the weight ranges of 20,000 – 140,000 lbs. Typical testing speeds for many of our vehicles exceed 125 mph for extended periods of time. Additionally we project numerous test projects which can reach, or even exceed the 175 – 200 mph limits. This would require “exclusive use”. However, based on the protocol of the development team, it most likely will not be possible to schedule exclusive use weeks in advance.

Answer

Scheduling of time slots for exclusive use will avoid mixing of very high-speed vehicles with slower vehicles.

The possible upgrading of existing Army facilities discussed at the Industry Forum would further limit potential use conflicts.

Question/Comments 16.

Cost of Construction and Maintenance of Test Courses for Heavy Vehicles

- Track “wear and tear” anticipations from the Army perspective are questionable. Most automotive manufacturer’s are not in the business of testing semi truck/trailer style vehicles on our proving grounds. We do not manufacture any type of vehicle which exceeds medium duty truck specifications (24,000 lb GVW). In speaking with consultants related to the type of road construction techniques necessary to build this track, a normal passenger car test track is not designed to major roadway construction requirements. The financial cost differential to build a road course to interstate highway specifications places this project outside of any normal budgetary business planning for us to consider.
- WHO will be responsible to maintain all of the track surfaces?
- WHO will be responsible for pavement management?

Answer

The Army’s primary objective in this EUL project is to acquire the capability to conduct high temperature sustained high-speed over the road testing capabilities for the Army’s entire fleet of vehicles.

As discussed at the Industry Forum and reflected in the Answer to Question 1 above, all proposals will be evaluated with respect to providing those capabilities.

Different track configurations, construction of separate facilities, or a combination of new joint use and upgrading of existing Army facilities will be given consideration with respect to achieving the primary objective.

Based on discussions at the Industry Forum maintenance of facilities would be borne by the primary user. If the accepted proposal includes providing essentially separate capabilities for the Army's heavier wheeled and tracked vehicles then the Army would be responsible for maintenance of those facilities.

Question/Comments 17.

- The proposed use of 100+ miles of unpaved test courses is not feasible based on the fact that most of the Engineering staff visiting our facility are Foreign Nationals, and would not be able to have access to the courses without having a U.S. citizen escort. It is not feasible to employ enough staff to perform these types of "security" functions on a daily or even "as needed" basis.

Answer

The restrictions on unescorted Foreign Nationals to U.S. military installations were developed to meet specific threats. This EUL is the first project that involved private companies, with foreign national employees, operating virtually independently within a U.S. military reservation.

The concept of using the fence which normally ensures product security for a manufacturer inside the fence to limit access of the manufacturer's Foreign National employees to the military installation outside the fence is an innovation and is possible only because of the direct access granted from U.S. Route 95.

Other innovations may be possible as the relationship moves forward. One discussed at the Industry Forum was establishment of additional limited access (fenced) areas directly accessible from Route 95 such as the area of the Gravel Loop unpaved road course.

Question/Comments 18.

Security

- It is understood that both operations require and enforce advanced security measures. While we support most of the requirements set forth in the revised

NOL, there is a concern regarding foreign national's access to areas outside of the leasehold area. During the summer months our largest amount of testing is in support of our Engineering Teams based worldwide. Our facility provides the opportunity for hot weather testing for the entire corporation. This includes operations in Europe, Asia, China, South America, Mexico, and South Africa. It is typical for our operation to have an average of 100 foreign test personnel on site each day from mid April through Mid October. While most of the testing would be supported within the leasehold area, off road or gravel test work, which is a large part of our testing operations, would be on tracks outside the secured area of the EUL. It would be financially impossible to have an escort for every foreign national by a pre-approved U.S. National. We suggest consideration of some form of pre-clearance to allow access to an expanded area of test tracks typically used for passenger vehicle and off road testing outside of the leasehold area.

Answer

As stated above, other accommodations may be possible as the relationship evolves/develops but we can make no firm commitments at this time.

Question/Comments 19.

Types of Army Vehicles, Weights and Speeds

- After review of the various military vehicles planned for testing, and consulting with our Construction Company, it is our opinion the only vehicles which could use shared tracks would be the HMMWV as this is a weight limit less than 20,000 lbs. As previously mentioned, typical construction methods for passenger car proving ground roads support weight limits up to 24,000 lbs (medium duty truck applications). Heavier vehicle axle loads place unusual demands on the test surfaces, especially under extreme hot summer temperatures. It is correct to assume that highways built to support 80,000 lb axle weights of large semi trucks provide years of service and use, however, the road conditions deteriorate quickly and require excessive maintenance to keep surface mu, lane smoothness, surface cracking, road hop, chatter bumps and other phenomenon from developing over time. The cost of maintenance on the road surfaces must be considered over the long term, assuming the bidder is responsible for the road maintenance over the entire lease timeframe. These projected costs must be compared against the value savings of the use of the land to determine if this is a reasonable trade for the company to pursue this venture. Additional studies are required once a final decision is reached on the NOL requirements.

Answer

We understand there are differences in many of the test needs of the Army vs. most manufacturers' vehicles for the civilian sector. There are also

similar needs within some classes of vehicles especially since the Army is adapting increasing numbers of commercially available vehicles to military use.

There are also important differences between surfaces used for performance testing, especially for high-speed vehicles, compared to the more highway type conditions that can be tolerated for endurance testing of heavy vehicles.

Discussion at the Industry Forum included the Army's commitment to consider a variety of possible solutions to meeting the Army's requirements without compromising operational safety or test needs of the developer.

Question/Comments 20.

Revised Minimum Army Requirements

General comment is that construction costs to support the Army minimum requirements already equal the cost to construct a proving ground facility required to support our requirements at another site location. Once the Army minimum requirements are met, then our company will still need to construct its entire necessary infrastructure and specialty tracks to support our specific test requirements. Additionally, a bidder should consider some of the "additional credit" options suggested to be considered in the top tier of bidders. All of these costs have to be compared to the cost savings achieved by the offset of a land purchase. While it is a benefit for the Army to have bidders provide "additional credit" construction, we would have to give extensive consideration to costs versus benefits.

In our opinion, a more desirable scenario would be for a successful bidder to construct the minimum military requirements on the 2,400 acre site, and the Army to offer an alternate land site, with larger land area potential, for the bidder to construct their proving grounds facility. This would provide increased benefit to both the bidder and the Army as the separation of the test sites removes all of the concerns including scheduling, vehicle compatibility, exclusive use requirements, safety, and other specific obstacles depending on the bidder's requirements. This also would allow for the bidder's PG to continue operating under national emergency situations, as it could eliminate site access issues if it could be located in an area further away from base operations critical to Homeland Security.

Answer

As stated above and at the Industry Forum, all proposals will be evaluated with respect to meeting the Army's overall requirements.

Section 2.

Questions from Industry Forum 21 March 06

Question 21.

Currently the installation does not consume all of its water allotment. Would the installation offer a percentage of its unused allotment to the project or would the selected developer need to negotiate with local or state authorities for water allotment?

Answer (Col Kreider, YPG Commander)

As I said earlier in my briefing when I talked about the power, water, and sewage. That is all controlled by the installation. This would be treated just like we do any other tenant and will be part of the support agreement between the people in the EUL and us and it would fall underneath our water rights. You would not work with the county or the state or do anything exterior. It would all be in conjunction with the installation.

Question 22.

Are there any drainage issues or concerns related to the EUL site?

Answer (Graham Stullenbarger)

The EUL was specifically located to take advantage of a drainage divide between the Gila and Colorado River drainages. The site is very level. Site hydrology study is included in the project Environmental Assessment (EA) which is posted to the web page. The CD included with the handout also includes hydrology and topographic maps.

Question 23.

Do you have an exposure farm for the UV rays?

Answer (Graham Stullenbarger)

We have one, but it's where we also store munitions in our secure area. If there's going to be an exposure site, we prefer to have one somewhere else within the EUL fence or otherwise.

Question 24.

What condition is the Dynamometer Course in? What kind of pavement is on the Dynamometer Course now?

Answer (Rick Hammond, R&M Associates)

There are two sections of the Dynamometer Course. There is the basic track and the widened portion, which was recently constructed. The older part of the track

was constructed in the '50s. The rehabilitation of that pavement is more or less what's being addressed. That pavement is old, brittle and showing severe signs of weathering and failure. What needs to happen is, first off, a coring to find out if milling and repaving is possible or a total rebuild is necessary.

We don't know right now what the thicknesses are of that pavement. We can come up with a solution to rehabilitate that pavement so that it provides the next 20, 30 years of service.

Question 25.

When will the NOL be finalized?

Answer (Bob Penn, Baltimore District Office, Corps of Engineers)

As I mentioned in my presentation, we expect to have the NOL finalized within the next two weeks.

Question 26.

Please discuss a few possible scenarios of Army usage in terms of seasonality, duration of use, time of use, for example, day, night.

Answer (Zack El-Ansari, Chief, YPG Combat & Automotive Systems Division)

The Summer/Hot Weather Test season is the busiest for performance testing and other temperature related tests such as Full Load Cooling.

Endurance testing is conducted year round and generally on a two shift per day basis. I don't foresee any problems that can't be addressed through careful scheduling even if our workload doubles or triples.

Question 27.

How flexible is the Army in altering its preferred test time to accommodate industry?

Answer (Zack El-Ansari)

We are very flexible. We try to accommodate every test we have. We will work these issues out as we work together to prepare the business plan.

Added after review of all questions

Temperature dependant performance tests such as Full Load Cooling are the only tests that have critical time windows. Discussions about potentially separating facilities for endurance miles vs. performance or separating the Army's heavy wheeled vehicles (plus

tracked vehicles) from the developer's vehicles further limits potential scheduling conflicts. The upgraded heavy vehicle courses/facilities could be used by both parties as a backup to newly constructed facilities for lighter vehicles.

Question 28.

How far down do you have to go until you hit bedrock?

Answer (John Haygood)

I'm not sure exactly how far bedrock is and I don't really understand the question. The water table is about 300 feet and we have got wells that are 900 feet, 1,000 feet deep and we haven't hit bedrock yet.

Question 29.

What would the impact on this project be if Aberdeen Proving Ground gets its four and a half mile high-speed test track?

Answer (Col Kreider)

Two answers to this. What we have put forward is the Army's Requirement for testing the Army's vehicles, current and future. If the Army is successful in gaining these capabilities at Aberdeen this is great. That does not alleviate us having to have the same requirement here at Yuma Proving Ground because of our need to test in the high temperatures. So our expectation is that we will end up sometime in the future with capabilities at both proving grounds.

Again, if you go back to what I mentioned earlier in terms of the environment, this gives us a track at Aberdeen whose function is the Temperate Zone. It gives us a track here in Yuma Proving Grounds focused on more miles in the heat. We also have our track up in Alaska. We would then have the capability across the entire environmental spectrum. So do I see a direct impact of a track occurring at Aberdeen on here? We still have the requirement here.

Question 30.

We have never seen minimum requirements in an NOL before. To comply with that will require detailed development and financial planning up front. This time and cost usually occurs with the selected development team during the business and leasing plan. Why is YPG departing from this process?

Answer (Bob Penn)

Well, first of all, we have particular needs to test certain size vehicles for endurance. And while this would not be our norm in an NOL, we wanted to be up

front with everybody to let you know, these are the types of things we need and these are the facilities we need to build so that we can work together to get them. We're not telling you how to do it. We're telling you to bring your entrepreneur skills in to work with us to look at the facilities here at YPG, to look at our needs and find a way to meet your needs and to meet our needs together. So just to leave it blank and then walk into negotiations and have you say, well, why didn't you tell us this earlier, we thought would be a mistake. So we wanted to layout for you what we -- what the Army needs to do to test their vehicles today and then say, how can we find that solution working with industry to meet those needs.

Question 31.

What's the basis of the ten percent Army use figured in the NOL? Can you provide details?

Answer (Zack El-Ansari)

We anticipate up to 200,000 total test miles per year based on current workload projections. Much of our testing is conducted on the unpaved test courses and for other test purposes than high-speed paved road miles.

Even if total miles increased to 300,000 with a profile requiring 30-40% road miles the overall miles on the paved course would be less than 10% of the test miles reported from industry.

Question 32.

We evaluate the financial considerations of the EUL. The joint use aspect needs to be better understood. What assurance does the developer/operator have of using the EUL site, what percent of time will guaranteed minimums be provided for the EUL site?

Will other facilities be made available, for example, lab and analysis facilities?

Answer (Zack El-Ansari)

Definitely we can share all the facilities we have here on YPG. We have the capability to support our own and private industry needs. We can work out the details as we prepare the Development Plan and other agreements later. I don't see any issues or problems we would run into. Everything goes through the joint scheduling and private industry will get the chance to do all the testing they need to do. The more facilities available, the less impact from having too few test courses. If our facilities are improved as part of the proposal then there is even less requirement to use the private industry tracks.

Question 33.

Is GIS data available on the site?

Answer (Graham Stullenbarger, Chief, Natural Environments Test Office)

Yes, GIS is available. You also have disks in the handout that include a detailed topographic map. In most cases that will be all you need. But if you want more detailed GIS data on the site, we can provide that. One of the reasons we redid the CD was to make sure that there was a good topo map included.

Question 34.

Do you have to comply with dust mitigation problems during construction? If so, where do we get water?

Answer (Col Kreider)

A number of us can answer that. But our construction standards and processes are no different than if you are on the installation or out. As I commented on the hill, water is already available right there at the Dynamometer area in terms of the well. As we do construction on this installation we also do dust mitigation by spraying. And you have to do that as you would anyplace else in terms of construction.

Question 35.

What's the nature of the landfill that's south, southeast of the site?

Answer (Charles Botdorf, Chief YPG Environmental Office)

The landfill to the south, southeast of the site, it's a landfill of domestic and construction material. I think there's about 50 years of life left in it. It goes to a depth 20 feet, groundwater is at about 350 feet. And it's one of the few private landfills left in the county.

Question 36.

What geotechnical data is available for the site or digital terrain models?

Answer (Graham Stullenbarger)

Hydrology and topographic maps are included in the handout CD. Some other data is available should that be inadequate. Additional information is included in the hydrology plan that is part of the Environmental Assessment (EA) posted to the EUL web page.

Question 37.

How deep is the water table for drilling of the well and refuse disposal?

Answer (Col Kreider)

I think I answered that question with the adjacency of the landfill. John, how deep do you think the water is at the site?

Answer (John Haygood)

The water table of the well at the Dynamometer is around 350 feet to water. So the pump set has got to be somewhere lower than that, probably 400 feet, and the well produces 200 gallons a minute minimum.

Question 38.

What's the preferred solution for on-site wastewater treatment?

Answer (Charles Botdorf)

Industrial wastewater treatment would require an individual permit from the State of Arizona.

And there would also be permit requirements for your domestic wastes such as office and car washes.

Question 39.

Are environment clearances or permits required?

Answer (Charles Botdorf)

Environmental clearance would be no different than any other construction site in the state of Arizona. And you would also have 404 permits. There is a PM 10 zone but it's South of this area.

I will provide a list of State and Federal Guidelines.

Question 40.

If we're partnering, is the lease in both company's names?

Answer (Bob Penn)

That's why you structure your deal. Most teams come together and form an LLC, and then take that side of the lease in the name of that entity. So you have to determine how you are going to put your team together and who is going to be responsible for what. But typically we find an LLC is formed and it's the LLC that signs the lease.

Question 41.

Follow-up question. If the land areas are separated for partnership, would these areas be separately leased?

Answer (Bob Penn)

They could be. Again, depends upon the structure, what you are doing for each side, what's efficient for us. That's all workable. It comes out in the business and lease plan with the structures of your entities.

Question 42.

What proposals do you consider nonresponsive if they offer less than the minimum requirement?

Answer (Bob Penn)

What we're looking for, for a proposal to be non-responsive, you would just miss it in every section, not give us much information. What we're looking for you to do in your proposals is to suggest a solution to us. We have a need that we want to meet through our in-kind consideration and through your proposals you are going to tell us how you propose to meet those needs for us and how you can bring them to us. We're looking for your ideas, your energy, your entrepreneurship to help us meet our needs.

Question 43.

Will the operator of the test facility be able to have housing on the installation?

Answer (Col Kreider)

The operator of the facility will be treated as if they are a tenant on the installation and as we treat any other tenant. And that allows them access to facilities and operations of the installation, depending upon the agreed upon support agreement that's between the installation and the particular entity. There are certain things by law, such as the use of a commissary for food, that you would either have to go back and get permission from higher authority in this

particular case. But we own the housing. I lease the housing now to government and contractors who work on this installation and, yes, that would be available, both the terms are excess housing and if there is a desire for you guys to build some houses for your particular individuals, we'd be able to work that out as part of the support agreement.

Question 44.

How often do you anticipate testing heavy vehicles, that's vehicles weighing more than 80,000 pounds, on the shared high-speed course?

Answer (Col Kreider)

The chart that Zack commented on showed the five different categories of wheeled vehicles. It's actually in the precedent order of weights, if you will. He indicated that the primary focus is the first three categories, which is vehicles less than 80,000 pounds. I believe we said 85 percent of the work is in that category. So 15 percent of the work is above that particular point. There are a number of ways that that can be addressed. It could be on a test track that is built to meet our needs and we do it there. The proposal could say for example, that we're going to expand the turns on the Dynamometer Course and anything above 80,000 pounds the Army will do on the Dynamometer Course.

So again, as Bob indicated, what we said is the minimum requirements, how exactly unique they are, I think there are many alternatives and we're looking for you all to give what your thoughts are on the capabilities to be able to fit that. Either building all new or combination of building new, expanding some of our current capabilities, because it just doesn't fit, for example, into your spectrum of testing. And so you don't want to do it on that particular track, we'll do it someplace else. That's what we're looking for in terms of ideas from you in terms of the proposal.

Question 45.

If wider turns are added to the Dynamometer Course, how much of Yuma's high-speed heavyweight testing will be accommodated there?

Answer (Zack El-Ansari)

Could be that all of it could be done there. Our vehicles may require 50% of their total miles on paved courses but with maintenance time and other factors actual time on the tracks may be limited.

We would also separate the tracked vehicles from your vehicles for safety reasons. We want to keep all the tracked vehicles at the Dynamometer Course. . . so that is why we need that track improved. . . we would never take the tracked vehicles to the high speed (paved) track

We would use the Dynamometer Course for our heavy (wheeled) vehicles and tracked vehicles at the same time.

Question 46.

What's the size of the current paved pad adjacent at the Dynamometer Course?

Answer (Graham Stullenbarger)

We built it 1,000 feet long, 120 feet wide with 500-foot run-ins on either end.

Question 47.

Why not just give the land to the auto folks or university consortium, let them build their own track and bring industry second, third tier partners with them? Why use the EUL?

Answer Bob Penn

Well, first of all, we need a vehicle to transfer the land. I'm not giving it away. I want rent and I want my rent in in-kind services. So the primary in-kind service that I'm looking for is use of the track. So in essence, what I'm saying to you is, depending upon what the value of that land is and what we negotiate, I bring the land into the deal, you are bringing the paving and putting the track in for your use. And based on the economics, I'm getting the use of the track for my in-kind services. If you want to bring Harley Davidson or, you know, ten other companies along that are going to pay you additional rent, or use of track or if you have more than one company, that's fine. We need to know in the business and lease plan how that is all going to work, how we're going to schedule it and how I'm going to make my pay back in the use of track through in-kind services. Will we negotiate anything else in the deal? Yeah, possibly. But that's our primary objective.

The reason for sitting here is we've got the land, we have a need and you have a need. We are going to bring those together and that's how we achieve our goals. I need a method in order to lease it in a way that is competitive, trying to get it out to the market to find the best deal for everybody is the way that we do it. And through all of this, whether it's through a university consortium or anyone else who is in this -- who is in the room, we think that we can find a way to get a win-win for both parties. Hopefully I'll get you that sufficiently that you will submit proposals.

Question 48.

What about the Environmental Assessment, was it track specific so that there would be no question that this use would not be challenged?

Answer (Charles Botdorf)

Yes, sir, it was test track specific.

Question 49.

The 30-day response time and what have you, the answer you also just gave us that you are looking for ideas and concepts as part of the plan, I assume when you say that you are not looking for hard design or specific answers because you still haven't negotiated what the final plan is going to be and you are looking for, not a complete effort where people get into big outlays of money to do engineering at this point in the process. Is that correct?

Answer

Correct. What we're looking for is your vision, how can it work, how can we bring this together to make it work for both of us. We have an idea, you know, the development plans and concepts. So we're not looking for you to totally design and cause a lot of expense. Obviously you are going to do some cost assessment because you are going to need to make some decisions.

You are going to do due diligence, as you would on any other project. But we're not looking for a full design on the track. What we're looking for is your vision and then from there we'll go into negotiations.

Question 50.

The first question is, what is the value of the land out back? And the second question is, does the contractor who does the work have to then have the design approved by the facility (YPG)?

Answer (Bob Penn)

First of all, the value is, the value of the land that's out there is relative to what you would pay for an equivalent size land to build a test track with all the zoning and all the requirements you need anywhere in the southwest region. That's what I'm bringing to the table. Called the principle of substitution. And can you ask your second question again?

Question 51.

If we get a contractor to do the work on the site, do they have to be approved by the facility?

Answer (Bob Penn)

We'd like to see the contractor come in as part of your team. So that way we know who you are bringing to the table with you. We get a chance to run a Dun & Bradstreet on them, know what their bonding capabilities are. And capabilities and qualifications and past performance, those are the kinds of things that we like to see there. What we prefer not to see is that you come in and say, well, we're going to do it but we're going to hire a contractor to do it. Because that way we don't know who is going to deliver that facility to us.

Question 52.

Would there be a restriction on the lights for the 24-hour a day operation?

Answer (Col Kreider)

No restrictions on operating 24 hours. We do it ourselves when we have to. Would be no restriction.

As part of the support agreement we would want to discuss that with you. From a general context I would say no, there is no requirements or restrictions, if you will. However, as I pointed out to you when we were out there, you saw the parachuting that was occurring over Phillips Drop Zone about five kilometers to the west of the site.

Each training course is three and a half weeks long, so ten times a year they do night jumps on two nights. And they would like not to have the entire lower Arizona lit up so that they are actually jumping into the light. But I believe we can work that out where it would not interfere with the operations on a 24-hour basis of the site. But I wouldn't want to see a whole lot of floodlights that would go over a couple kilometers away and impact training safety.

They jump now, we don't change the lighting of the airfield, which is less than the distance to the EUL. But we would like to at least discuss that so that we're not creating a very bright spot on the ground. But I don't see that there is any restrictions that that would necessarily cause problems for you. We just need to talk about it. And I'm sure we could work that out in the support agreement process.

Question 53.

That's weekends too, if needed?

Answer (Col Kreider)

The question was, does that include weekends. The free-fall school only jumps Monday through Friday.

Question 54.

Does that two percent slope apply to the whole cross section of the high-speed track? That is can the outer lanes be banked more for higher speeds?

Answer (Col Kreider)

That's one part of the requirement that has to be looked at. Because you trade banking in the turns for radius and you can make such a large radius that it uses too much space and we don't have an unlimited land area.

It's something that needs to be looked at and that's why we want, as Zack said a couple times, let's see your proposal for that. And generally, two percent is just what you use for drainage to get the water off the track.

Question 55.

In response to an earlier question today on foreign national access, it was a discussion about whether you have more of a coordination issue. What's your vision of how you coordinate with this track operator?

Answer (Col Kreider)

We do foreign national testing on this installation almost every day. We are bounded by DOD requirements for clearances and control of foreign nationals on a test facility. That basically says that we need to have the information about the individual and we control our access. So that typically means, depending upon their request they are authorized to go to certain areas and, if need be, they must have a government escort.

The concept we are looking at, and one of the reasons why we ask that the security within this particular area be controlled by you, fenced by you, is so that that issue was totally within your control and how you normally do business. My comment earlier in the day though, that if you left that area to go to our government facilities outside of either, again, depending upon your concept, your specific EUL area or larger, if you encompass our Dynamometer Course and put that into a joint use area, we would have to go and discuss through the business planning development between the two of us, the process that we would go through for the escorting of foreign nationals off of that controlled arena. In other words, into the other portions of the government side of the house. Now, there are a lot of possibilities. We could, if we agreed together, that it requires a

government individual to escort them, then there will be some cost you would accept.

We have in other tenants activities trained individuals we have appropriately certified so that they can be the escort. We could do the same here.

Question 56

As part of the EUL process as mentioned, was there a market feasibility study done? Is that something that would be available?

Answer (Bob Penn)

Well, that's an internal document. We tested the market; found out that there was a need for the facility. These come in all different sizes. If you are doing a test track or a power plant or a research and development park they all take on different dynamics. What we wanted to test here was, is there a market, can somebody come in and fill the market.

If we had a forum, would somebody come and not have us here all alone. So I think our question was answered. We are going to do some detailed cost analysis. What we do when we enter into negotiations is we run numbers, just like you run numbers. We'll do cost estimates.

We'll look at the dynamics of your deal and run those numbers with you so that at the end of the day we can come to a meeting, and we'll share those numbers. We like our -- not we like, but we require that our negotiations be a complete open book transaction. We'll put all of our cards on the table, you put all of yours, including your financing, and we come to the deal that works for everybody.

Question 57.

The developer owns his own track. What's the liability of the Army test being on that track is it the Army's liability or is it the owner's liability?

Answer (Col Kreider)

Well, the Army is self insuring and in our lease agreement we're responsible for certain things that are done by our employees and our agents. You know, if we're there and we create a problem, we own the problem. So, yes, there are certain responsibilities and liabilities that we have.

We can't shift everything a hundred percent to you. And it's a business deal. What you are doing is essentially I'm leasing the land to you and then you are letting me use what you build on it. Obviously I'm looking for you to have certain responsibilities. You may bring other people in. So you will have some bonding

and insurance capabilities. At the same time I'm going to sign up to own any responsibilities I have as the Army.

Question 58.

Are there any restrictions on site communications?

Answer (Graham Stullenbarger)

There are some. What we would require is for you to go through our frequency coordinator. There are parts of the band available.

But we have to be very careful because some of our operations can't have RF interference. And, yes, there is coordination required.

But we have companies or projects come in, clear their radio frequency, set up their private radio net for operations here. But RFI is very important to us, not so much for security, but for safety.

Question 59.

Also, along the lines of the photography. I think the racing industry particularly, you see a lot of film crews on site. I know there are sensitivities to that. Will that be a problem?

Answer (Col Kreider)

You own inside the fence. With the exception being is if the Army was testing one of its vehicle systems in there, and it was sensitive. And we would clearly indicate to you those times when it's sensitive, just as I'm sure you would convey to us the times that it's sensitive on your part that you don't want other people seeing what's going on.

And that would be worked out in the process in the business plan. But inside the fence, you control taking photography with the exception of when we had a government system in there. And we can work that out.

Attachment 1

Test Scheduling

The government and the selected developer will operate essentially independently with the exception of sharing vehicle test courses inside and outside of the leasehold area. It is anticipated that this shared use will occur on almost every course, on every test shift unless one party schedules “exclusive use” of a particular course for some security or safety reason.

Ideally each partner will notify the other of any need for exclusive use or special events which will limit the other’s open access to a course or area as far in advance as possible.

YPG currently identifies major upcoming projects months in advance even though actual testing (what, when, where) may shift by the week or even day as the test matrix is filled in.

Smaller (1-2 vehicle) lists and customer tests may be assigned with less lead time but there is generally at least 2-3 weeks notice.

The primary use of the constructed courses is to provide the “paved” miles of the “operational mode summary” of vehicle endurance testing where paved, unpaved road, trail, and cross-country miles are conducted to establish vehicle durability and reliability.

The paved straightaway and skid pad will be used primarily for braking, evasive maneuver, acceleration, . . . and similar safety or performance testing.

Generally there is flexibility in order of conduct, etc. which allows meshing of several test schedules.

Procedures will be jointly developed to ensure that the needs of both parties are met. Requests for exclusive use should be made clear one week in advance and should not extend more than a single shift (eg. the developer could schedule exclusive use for high-speed testing on the day shift and the Army would defer paved vehicle durability miles until the second shift. . .)

The joint scheduling process should predict anticipated testing workload at least two weeks in advance, finalize special requirements one week in advance, and adjust routine uses daily as required to meet the requirements of both parties. This process should include accommodation of any special security requirements of scheduled tests for either party.

As stated in the NOL, the Army expects to be a consistent user, but not most frequent user of the paved high-speed track, straightaway, and skid pad. It is

anticipated that Army test vehicle density will be relatively low, on the order of 10% or less of total vehicles using the new facilities.

Except for the Minimum Army Requirement courses discussed herein scheduling of Army Vehicles to other developer constructed courses would be dependant on weight carrying capacity of any particular course. Army test procedures to be used on these other courses would also be subject to developer concurrence.

Any scheduling conflicts must be resolved at the lowest possible level. At times both parties may have to prioritize tests and the developer site manager and the YPG Commander jointly establish a sequence of execution.

Attachment 2 **Security**

Operational, physical, and in the case of the developer “product security” are primary concerns of both parties:

The lease action creates essentially a 2,400+ acre developer controlled island within a 800,000+ acre military installation. The developer will provide a perimeter security fence for the leasehold with at least two access gates (Fig. 1). The developer is self-responsible for product security and can add height, screening, etc. to the perimeter fence to aid visual security.

This fence essentially separates developer and government testing with the exception of three categories of personnel:

- Test personnel of both parties that are mutually pre-approved (and badged) to move seamlessly between all vehicle test areas to expedite the daily testing operations of both.
- Government personnel who provide crash-rescue, fire, and emergency services as required.
- Government officials responsible for oversight activities (eg. environmental protection) which are non- assignable. Any inspections would include making initial contact with the developer’s onsite senior operations managers and having a developer representative as a member of the inspection team.

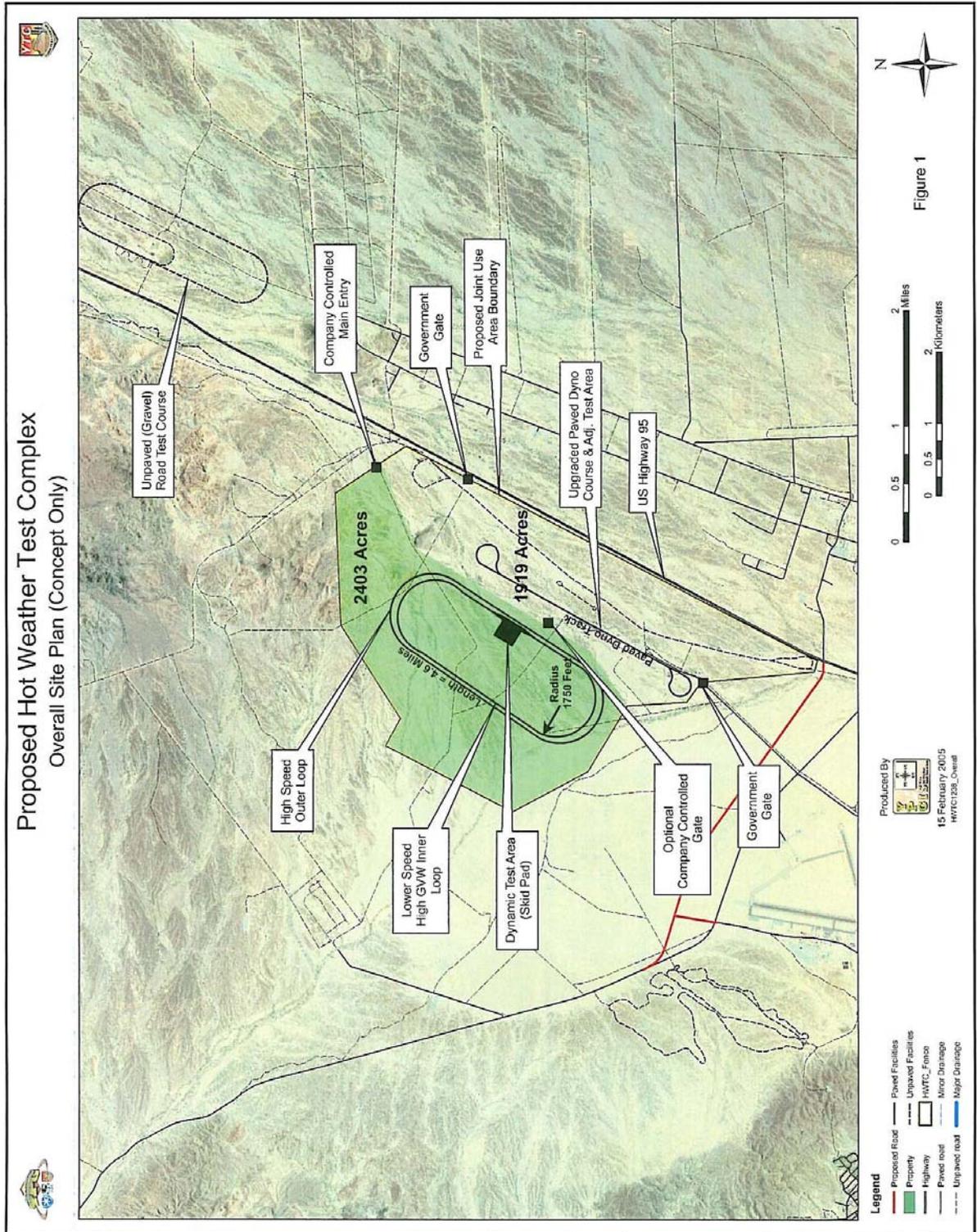
The developer will control primary access to the area via a main entry point at the north end of the leasehold directly accessible from U.S. Route 95. The developer will be responsible for control of operations within the leasehold area including having procedures in place to ensure that onsite and visiting personnel do not gain unauthorized access to government test areas.

Test vehicle operators, test engineers, technical support personnel, and properly cleared visitors of both parties must be able to move from area to area to conduct durability cycles and other scheduled tests as needed.

The responsible onsite person for either party would notify their equivalent of any special security or other precautions that would temporarily limit access of other personnel.

In true national emergency situations (none have occurred to date) it may be necessary to limit personal on the installation to only essential security personnel. As a primary tenant activity, the developer’s onsite Manager or his alternate will be the member of the emergency planning board or similar boards ensuring developer concerns are addressed.

Figure 1



Possession of camera equipment by employees will be limited outside the EUL area to only those having YPG Camera Passes. Possession of cameras inside the EUL will be controlled by the developer.

Product and/or information security are a concern of all parties.

The joint scheduling process should preclude the Army scheduling a test which would expose the developer's products to a potential competitor. In general "Army Testing" includes testing of vehicles for U.S. Government agencies, foreign governments, defense contractors/suppliers, and others with defense related beneficial relationships with U.S. Army Yuma Proving Ground or other DOD activities.

YPG is authorized to do testing for, or support testing by private companies. This is a topic for discussion during preparation of the Development Plan after downselect and must be a consideration in the weekly scheduling process.

Product security is a primary developer concern while access by foreign nationals is a primary government concern. The Army recognizes that the automotive industry is global with employees of all nationalities but restrictions on access of foreign nationals to U.S. military installations cannot be waived. The only area on YPG where foreign nationals will be granted access without prior government authorization is via the developer controlled North entry site to the leasehold. Movement within the leasehold area is a developer responsibility but movement by foreign nationals outside the area requires escort by pre-approved U.S. nationals. The government will provide training required to certify permanent onsite developer employees who are U.S. citizens for these escort duties.

The developer may propose a larger footprint for inclusion into the area for unrestricted access by visitors, including foreign nationals, by expansion of the fenced area as per Fig 1. The government would retain primary control except for the actual leasehold area.