Planning Commission
Staff Report

PARK CITY 1884
PLANNING DEPARTMENT

Subject: **Treasure**
Project #: **PL-08-00370**
Author: **Francisco Astorga, AICP, Senior Planner**
Date: **12 July 2017**
Type of Item: **Administrative – Conditional Use Permit Constructability Assessment Report & Refinement 17.1 and 17.2**

Summary Recommendations

Staff recommends that the Planning Commission review the applicant's submitted updated Construction Assessment Report and allow the applicant to present refinement 17.1 and 17.2. As noticed, a public hearing should be held. Staff recommends that the Planning Commission continue the item to the August 9, 2017 Planning Commission meeting.

Description

Property Owner:	Sweeney Land Company and Park City II, LLC represented by Patrick Sweeney
Location:	Creole Gulch and Mid-station Sites Sweeney Properties Master Plan
Zoning:	Estate (E) District – Master Planned Development
Adjacent Land Use:	Ski resort area and residential
Topic of Discussion:	Constructability Assessment Report & Refinement 17.1 and 17.2
Reason for Review:	Conditional Use Permits are required for development per the Sweeney Properties Master Plan. Conditional Use Permits are reviewed by the Park City Planning Commission

Background

Despite the applicant's stated goal of completing their Transportation/Traffic Study addendum in February 2017, the applicant was not able to conclude their update until early May 2017. The applicant introduced this update on May 10, 2017 and again on June 14, 2017. The applicant is currently updating their Transportation/Traffic Study final version and was unable to submit it to the City and present it to the Planning Commission for this meeting. Staff will have to receive the Applicant's final version of the Transportation/Traffic Study on July 20, 2017 in order to have ample time to prepare a staff report and recommendation for the scheduled August 9, 2017 Planning Commission meeting.

Applicant requests to present the Constructability Assessment Report to the Planning Commission, also Refinement 17.1 which includes video renderings, as well as providing an introduction of Refinement 17.2.

Refinement Summaries

Refinement 17.1 (Exhibit D) submitted to the City on June 27, 2017, includes the following components as summarized by the applicant:

1. *Elimination of the mine exhibit.*
2. *Shifted a nominal number of commercial and residential UEs from the Creole-Gulch to the Mid-Station Site.*
3. *Reduced the footprint and added a penthouse unit to Building 1B.*
4. *Eliminated one (1) story from Building 3B.*
5. *Added a step at the top story, southeast corner, of a Building 4A.*
6. *Added a step at the top story, east end, and eliminated two (2) stories from the west wing of Building 5A.*
7. *Converted Building 5B from 3-story townhouses to flats.*
8. *Added a step at the top story, west end, of Building 5C.*
9. *Total gross area was reduced from 1,016,887 square feet (2009) to 1,005,387 square feet (V17.1), which is an 11,500 square foot reduction.*
10. *Reconfigured the Cliffscape behind Building 1 and 5 based upon further geotechnical analysis.*

Refinement 17.1 (Exhibit D) includes plans, plans compared to 2009 plans, photo viewpoints location plan, rendering stills and view points.

Refinement 17.2-partial (Exhibit E) submitted to the City on June 30, 2017, includes the following components as summarized by the applicant:

1. *Acceptance of the existing grade of the Lowell/Empire turnaround.*
2. *Elimination of the Footprints and below grade accessory space of Building 5B and 5D.*
3. *Transfer of the above grade mass from Building 5B and 5D to Building 5A-5C and Building 4B, stepping of Building 5A-5C east to west.*
4. *Compression of the footprint of Building 4B and shifting the footprint downhill, widening of Creole ski trail.*
5. *More efficient parking and underground circulation. Centralized check-in and lobby, shifting of the main entrance off Lowell Avenue away from residences.*
6. *More efficient design of Building 1B and 1C consisting of conversion of Building 1C to flats, elimination of some accessory space, and bringing in the Cliffscapes behind Building 1B and 1C (design work still progressing).*
7. *All resulting in less excavation, cliffscapes, site disturbance, and accessory spaces, i.e., less impact and gross, more efficient design.*

Refinement 17.2-partial (Exhibit E) includes comparison of Refinement 17.2 vs. Refinement 17, and working massing, elevations, and plans. Near the end of July the applicant expects to submit finished drawings of Refinement 17.2, comparison video, and still renderings. Applicant also expects to have an updated Written and Pictorial Explanation which will be intended to serve to tie everything together in an easier to read package. Staff will have to receive the Applicant's final version of this refinement on July

20, 2017 in order to have ample time to prepare a staff report and recommendation for the scheduled August 9, 2017 Planning Commission meeting.

Constructability Assessment Report

The updated Constructability Assessment Report and its exhibits, and various references, were submitted to the Planning Department on June 27, 2017. As indicated on the report, it is an overview study of the constructability of the project. The applicant outlined planned construction methods and mitigation measures. Planning Staff's initial concern, shared by other relevant departments, is that the "plans" primarily commit to perform or meet a certain standard in the future without any specific detail identifying and mitigating the specific impacts of the proposal.

Excavation

Applicant explains that in an effort to reduce the excavation impact and to improve efficiency, they have developed two (2) refinements referred to as version 17.1 and version 17.2 respectively to the 2009 packet. The applicant would like to present these two (2) refinements to the Planning Commission via presentation.

The Applicant requests to manage and place the excavated materials principally on site and on the adjacent Park City Mountain (Resort) property. Three (3) primary material placement zones have been identified on exhibit E2.0 Material Placement Zones. The Applicant requests to strip the existing topsoil and layback the soils in a berm that is then used in the re-vegetation and restoration operation. The estimated excavation quantities listed below, provided by the applicant, are "neat line" template quantities and do not account for material "swell" or expansion. For placement operations and zone capacity a swell factor of 25% was used by the applicant to estimate the expected quantity of material to be transported and placed in the material placement zones.

The applicant indicates that the subject site can be divided into four (4) main excavation sites as shown on exhibits E1.0 Refinement 17.1 Excavation Volumes and E1.1 Refinement 17.2 Excavation Volumes. Listed below are the estimated "neat line" quantities of total material to be excavated:

2009 packet	960,000 cubic yards
17.1 Refinement	905,000 cubic yards
17.2 Refinement	868,500 cubic yards

The three (3) primary material placement zones are identified on exhibit E2.0 Material Placement Zones. The primary placement zone is the Creole Gulch which is supplemented with the Kings Crown and Payday placement zones. Listed below are the placement zones and the estimated capacities as identified by the Applicant:

	Area (Acres)	Capacity (CY)
Creole Zone	16.0	1,040,500
Kings Crown Zone	6.0	117,500
Payday Zone	5.5	86,000

The excavation section of the Constructability Assessment Plan (June 27, 2017) has a significant change from ref.3, Treasure Excavation Management Plan (December 2008), to the Creole (placement) Zone which was listed as a 5.0 acre site with capacity of 125,000 cubic yards. The Excavation Management Plan (December 2008) also had a Secondary Zones Combined areas with a capacity of 625,000 cubic yards. Staff is in the process of reviewing the current proposal which includes this significant change to the Creole placement excavation Zone.

While the Applicant explains that AGEC has provided a technical review that outlines AGEC's confirmation of the viability of the submitted placement and excavation design, **Staff finds that there remaining components that need to be addressed and resolved, e.g., AGEC's letter dated May 15, 2017 (ref.4.1 AGEC Geo Opinion Letter 15May2017) indicates that AGEC has been requested to proceed with their recommended scope of work to conduct the geotechnical investigation. AGEC's investigation will include providing their professional opinions and recommendations on the following items for design and construction:**

1. **Temporary construction slopes**
2. **Long-term slopes and "cliff" like landscaping**
3. **Foundation support**
4. **Lateral support for the deep cuts, it needed**
5. **Excavated material placement.**

The City Engineer provided a preliminary review of the geotechnical studies and provides the following comments/concerns:

- **All three (3) soils studies and opinion reports note that the hillside is creeping.**
- **All three (3) soils studies and opinion reports recommend that all surface waters crossing the site and generated from the site must be routed around and/or immediately off the site.**
- **None of the studies evaluated the potential soil waste sites located higher up on the mountain.**
- **The studies assume two to three stories at best with stick construction.**
- **The allowable bearing pressures are assumed.**
- **The first report has a short inadequate section on slope stability.**
- **None of the studies provide insight on soil/rock management (other than the concern with protecting down slope houses from rolling boulders).**
- **The field investigations did not necessarily located the exact location of the bedrock.**

Soil Management & Water Source Protection

The applicant requests to follow their referenced report which recommends a protocol of maintaining the soil on-site and capping it to comply with current regulations. The applicant estimates the total quantity of the mine waste areas to be less than 3,500

cubic yards. The Applicant request to encapsulate the concentrated material, if necessary, and bury it on-site in environmentally acceptable areas.

The applicant retained a regional culinary water consulting firm to study the hydrogeology and the drinking water impacts of the project. They provided a technical review that summarizes the evaluation of the excavation and material placement sites and concludes that construction of the project does not pose a risk to the Park City drinking water sources.

Storm Water Management

Applicant explains that it is expected that construction phase storm water management will entail the design of a construction storm water management plan and the procurement of a Storm Water Pollution Prevention Plan (SWPPP) permit for the entire project. The items to be employed will include a storm water detention facility with supportive erosion control fencing and channeling. Applicant also further explains that the ongoing practices and design facilities of the post construction design will be in accordance and comply with the Park City Storm Water Master Plan and the State of Utah MS-4 (Municipal Separate Storm Sewer System) Program. **Staff requests to understand specifics of the mentioned storm water detention facilities, such as location, capacity, diversion of run-off water, etc.**

Service Utilities- Storm Sewer & Culinary Water

The planned internal storm water collection system and planned outfall are shown on the Concept Utilities Plans exhibits E4.0 Refinement 17.1 Concept Utility Plan and E4.1 Refinement 17.2 Concept Utility Plan. Applicant explains that the water service and fire flow requirements of the project were discussed with the Park City Public Works Department and it was determined that a twelve inch (12") dedicated water main line would be required. The Applicant acknowledges the financial responsibility of the required improvements to offsite infrastructure made necessary by the development of the project. **This mentioned main water line is not being built on the current Lowell Avenue road reconstruction. The future water tank will need to be located somewhere within Park City Mountain.**

Service Utilities-Sanitary Sewer/Telecommunications/Power/Natural Gas

Various utility letters explains that the servicing entities can provide services to the project provided that the established procedure is followed with each entity that may include subsequent receipt of payments of all required fees including impact fees, signed contracts, review of development plans, specific requirements, etc. See ref.8-11. Service routes and locations of dry utilities, transformers, etc., have not been identified and determined.

Construction Phase Activities

The applicant provided an updated a letter from Big-D Construction, see ref.13 Big-D Opinion Letter 30May2017, regarding construction feasibility and mitigation. The letter indicates that they conclude that the project is buildable within an estimated timeline of 3-5 years in the general configuration of construction. The applicant recognizes that

their outlined measures will be part of an approved Construction Mitigation Plan (CMP) which will be collaboratively developed. Currently CMPs are reviewed and approve approved by the Building Department as each CMP is specifically tailored to each project depending upon the extent of construction.

Applicant also provided a construction phasing and construction staging section on their Constructability Assessment Report. **The construction phasing section fails to deliver a specific timeframe for the various construction phases, e.g., how long they will take for excavation, footing & foundation, vertical construction, etc. The Constructability Assessment Report provides a summary of construction mitigation regarding construction traffic, environmental impacts, construction schedule, and construction staging. Staff requests specificity of the construction impacts and mitigation. The submitted Big-D construction letter and summary of construction mitigation in the Constructability Assessment Report provide current construction standards and do not outline specific mitigation measures aligned with direct and indirect construction impacts within Old Town. It does not adequately describe the proposed mitigations based on the size and scale of the proposal. Planning Staff does not recommend relying solely on current CMP standards at time of building permit due to the size and scale of the project.**

All of the approaches above steer towards formation of conditions of approval addressing future performance- Does the Planning Commission agree with this approach? If not, the Commission should request specific follow-up information to enable a finding of compliance with the applicable Conditional Use Permit criteria, approved Sweeney Properties Master Plan, and applicable standards.

Notice

The property was posted and notice was mailed to property owners within 300 feet on May 11, 2016 for the initial meeting held on June 8, 2106. Legal notice was published in the Park Record according to requirements of the Land Management Code prior to every meeting.

Public Input

Public input has been received by the time of this report. See the following hyperlink: Link A - Public Comments with public input received as of April 2016. All public comments are forwarded to the Planning Commission via the staff report link above and kept on file at the Planning Office. Planning Staff will not typically respond directly to the public comments, but may choose to address substantive review issues in subsequent staff reports. There are four (4) methods for public input to the Planning Commission:

- Attending the Planning Commission meetings and giving comments in the public hearing portion of the meeting
- Preparing comments in an e-mail to treasure.comments@parkcity.org
- Visiting the Planning office and filling out a Treasure CUP project Comment Card

- Preparing a letter and mailing/delivering it to the Planning Office

Summary Recommendations

Staff recommends that the Planning Commission review the applicant's submitted updated Construction Assessment Report and allow the applicant to present refinement 17.1 and 17.2. As noticed, a public hearing should be held. Staff recommends that the Planning Commission continue the item to the August 9, 2017 Planning Commission meeting.

Exhibits

Exhibit A – Constructability Assessment Report (Printed)
Exhibit B – Constructability Assessment Report Exhibits (Printed)
- E1.0 Refinement 17.1 Excavation Volumes
- E1.1 Refinement 17.2 Excavation Volumes
- E2.0 Material Placement Zones
- E3.0 Vicinity Map & Ski Run Grading
- E4.0 Refinement 17.1 Concept Utility Plan
- E4.1 Refinement 17.2 Concept Utility Plan

Exhibit C – Constructability Assessment References
- ref.1.1 Soils Studies And Opinion Reports Rollins
- ref.1.2 Soils Studies And Opinion Reports Lund
- ref.1.3 Soils Studies And Opinion Reports SHB Agra
- ref.2.1 AGEC ESA 12Oct2005
- ref.2.2 AGEC ESA Fig1-5
- ref.2.3 AGEC ESA AppA
- ref.2.4 AGEC ESA AppB
- ref.2.5 AGEC ESA AppC
- ref.3 Excavation Management Plan 15Dec2008
- ref.4.1 AGEC Geo. Opinion Letter 15May2017
- ref.4.2 AGEC Geo. Opinion Letter 7Oct2003
- ref.4.3 AGEC Geo. Opinion Letter 28Sep2016
- ref.4.4 AGEC Geo. Opinion Letter 10Jan2017
- ref.5 Robinson Const. Opinion Letter 24May2017
- ref.6 Alta Mine Waste Quant 27Jan2006
- ref.7 Hansen Water Sources 25May2017
- ref.8 SBWRD SPLetter 14Jun2017
- ref.9 Comcast SPLetter 30May2017
- ref.10 Rocky Mountain Power SPLetter 7Jun2017
- ref.11 Questar SPLetter 31May2017
- ref.12.1 050126 presentations Big-D
- ref.12.2 060111 presentations Big-D
- ref.12.3 060208 presentations-Big-D
- ref.13 Big-D Opinion Letter 30May2017
- ref.14.1 060308 presentations blasting concrete
- ref.14.2 060308 reports

Exhibit D – Refinement 17.1

Exhibit E – Refinement 17.2-partial

Hyperlinks

Link A - Public Comments
Link B - Approved Sweeney Properties Master Plan (Narrative)
Link C - Approved MPD Plans
Link D - Proposed Plans – Visualization Drawings1

- Sheet BP-01 The Big Picture
- Sheet V-1 Illustrative Plan
- Sheet V-2 Illustrative Pool Plaza Plan
- Sheet V-3 Upper Area 5 Pathways
- Sheet V-4 Plaza and Street Entry Plan
- Sheet V-5 Building 4b Cliffscape Area
- Sheet V-6 Exterior Circulation Plan
- Sheet V-7 Parking and Emergency Vehicular Access
- Sheet V-8 Internal Emergency Access Plan
- Sheet V-9 Internal Service Circulation
- Sheet V-10 Site Amenities Plan
- Sheet V-11 Usable Open Space with Development Parcels
- Sheet V-12 Separation-Fencing, Screening & Landscaping
- Sheet V-13 Noise Mitigation Diagrams
- Sheet V-14 Signage & Lighting
- Sheet V-15 Contextual Site Sections - Sheet 1
- Sheet V-16 Contextual Site Sections - Sheet 2

Link E - Proposed Plans – Visualization Drawings2

- Sheet V-17 Cliffscapes
- Sheet V-18 Retaining Systems
- Sheet V-19 Selected Views of 3D Model - 1
- Sheet V-20 Selected Views of 3D Model – 2
- Sheet V-21 Viewpoints Index
- Sheet V-22 Camera Viewpoints 1 & 2
- Sheet V-23 Camera Viewpoints 3 & 4
- Sheet V-24 Camera Viewpoints 5 & 6
- Sheet V-25 Camera Viewpoints 7 & 8
- Sheet V-26 Camera Viewpoints 9 & 10
- Sheet V-27 Camera Viewpoint 11
- Sheet V-28 Illustrative Plan – Setback

Link F - Proposed Plans – Architectural/Engineering Drawings 1a

- Sheet VM-1 Vicinity & Proposed Ski Run Map
- Sheet EC.1 Existing Conditions
- Sheet SP.1 Site & Circulation Plan Sheet
- Sheet GP.1 Grading Plan
- Sheet HL.1 Height Limits Plan
- Sheet HL.2 Roof Heights Relative to Existing Grade
- Sheet FD.1 Fire Department Access Plan

Link G - Proposed Plans – Architectural/Engineering Drawings 1b

Sheet P.1 Level 1 Use Plan
Sheet P.2 Level 2 Use Plan
Sheet P.3 Level 3 Use Plan
Sheet P.4 Level 4 Use Plan
Sheet P.5 Level 5 Use Plan
Sheet P.6 Level 6 Use Plan
Sheet P.7 Level 7 Use Plan
Sheet P.8 Level 8 Use Plan
Sheet P.9 Level 9 Use Plan
Sheet P.10 Level 10 Use Plan
Sheet P.11 Level 11 Use Plan
Sheet P.12 Level 12 Use Plan
Sheet P.13 Level 13 Use Plan
Sheet P.14 Level 14 Use Plan
Sheet P.15 Level 15 Use Plan
Sheet P.16 Area, Unit Equivalent & Parking Calculations

Link H – Proposed Plans – Architectural/Engineering Drawings 2

Sheet E.1AC2.1 Buildings 1A, 1C& 2 Exterior Elevations
Sheet E.1B.1 Building 1B Exterior Elevations
Sheet E.3A.1 Building & Parking Garage Exterior Elevations
Sheet E.3BC.1 Building 3BC Exterior Elevations
Sheet E.3BC.2 Building 3BC Exterior Elevations
Sheet E.3BC.3 Building 3BC Exterior Elevations
Sheet E.4A.1 Building 4A Exterior Elevations
Sheet E.4A.2 Building 4A Exterior Elevations
Sheet E.4B.1 Building 4B Exterior Elevations
Sheet E.4B.2 Building 4B Exterior Elevations
Sheet E.4B.3 Building 4B Exterior Elevations
Sheet E.4B.4 Building 4B Exterior Elevations
Sheet E.5A.1 Building 5A Exterior Elevations
Sheet E.5B.1 Building 5B Exterior Elevations
Sheet E.5C.1 Building 5C Exterior Elevations
Sheet E.5C.2 Building 5C Exterior Elevations
Sheet E.5D.1 Building 5D Exterior Elevations
Sheet S.1 Cross Section
Sheet S.2 Cross Section
Sheet S.3 Cross Section
Sheet S.4 Cross Section
Sheet S.5 Cross Section
Sheet S.6 Cross Section
Sheet S.7 Cross Section
Sheet S.8 Cross Section
Sheet S.9 Cross Section
Sheet UP.1 Concept Utility Plan

Link I – Applicant's Written & Pictorial Explanation

Link J – Fire Protection Plan (Appendix A-2)

Link K – Utility Capacity Letters (Appendix A-4)
Link L – Soils Capacity Letters (Appendix A-5)
Link M – Mine Waste Mitigation Plan (Appendix (A-6)
Link N – Employee Housing Contribution (Appendix A-7)
Link O – Proposed Finish Materials (Appendix A-9)
Link P – Economic Impact Analysis (Appendix A-10)
Link Q – Signage & Lighting (appendix A-13)
Link R – LEED (Appendix A-14)
Link S – Worklist (Appendix A-15)
Link T – Excavation Management Plan (Appendix A-16)
Link U – Project Mitigators (Appendix A-18)
Link V – Outside The Box (Appendix A-20)

Additional Hyperlinks
2009.04.22 Jody Burnett MPD Vesting Letter
Staff Reports and Minutes 2017
Staff Reports and Minutes 2016
Staff Reports and Minutes 2009-2010
Staff Reports and Minutes 2006
Staff Reports and Minutes 2005
Staff Reports and Minutes 2004
2004 LMC 50th Edition
1997 General Plan
1986.10.16 City Council Minutes
1985.12.18 Planning Commission Minutes
1986 Comprehensive Plan
1985 Minutes
1985 LMC 3rd Edition
1983 Park City Historic District Design Guidelines
Parking, Traffic Reports and Documents
MPD Amendments:
- October 14, 1987 - Woodside (ski) Trail
- December 30, 1992 - Town Lift Base
- November 7, 1996 – Town Bridge

TREASURE

CONSTRUCTABILITY ASSESSMENT REPORT

June 26, 2017

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RE: Treasure Project
Constructability Assessment

This Report is an overview study of the constructability of the Treasure Project. The following planned construction methods and mitigation measures are outlined and support related activities defined.

- Excavation
  - Estimated Material Quantities
  - Excavated Material Management and Procedures
- Soils Management & Water Source Protection
  - Soils Protocol
  - Park City Municipal Corporation (PCMC) Water Sources
- Storm Water Management
  - Construction Phase
  - Post Construction
- Service Utilities
  - Existing Facilities
  - Anticipated PCMC Utility Improvements
  - Updated Services Provider Letters
- Construction Phase Activities
  - Employee Transportation
  - Materials Delivery
  - Overview of Construction Methodology
  - General Outline of Project Schedule

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SUMMARY

This report brings together items that are anticipated to be encountered in the construction phase of the Treasure Project. The scope of the following construction items are defined together with mitigation measures. It is expected that the following construction items and mitigation measures will be augmented and further defined in the final design and review processes related to building permit application(s).

The construction related items methodology and design have been defined and evaluated by professional consultants and references to supporting reports and documentation are provided.

PRE-DEVELOPMENT SITE

The existing geology and soil of the Treasure Site is characterized by a series of soil reports prepared for the Treasure Site and are assembled in the Historical Soils Reports (ref. 1) including a geologic reconnaissance study conducted on the subject property dated April 22, 1994, prepared by SHB Agra. The environmental assessment of the subject property is outlined in a comprehensive Phase 1 Environmental Site Assessment dated October 12, 2005, prepared by AGEC P.C. Project No. 1051008 (ref. 2).

The study area is comprised of approximately 63.9 acres vegetated with indigenous aspen, fir, oak, mountain maple and various scrubs and grasses. The site is primarily undeveloped other than the existing ski runs and lift traversing the property, bike & footpaths, and power & PCMC water utilities. There is evidence of prior mining activities and the existing old Silver King mine tram towers traverse the property. Elevation of the site ranges between 7,080 feet above mean sea level at the Northeast corner to 7,760 feet at the Southwest corner.

The site is geologically characterized as consisting of Permian Park City Formation consisting of pale grey weathered fossiliferous and cherty limestone containing a medial phosphatic shale member and Pennsylvanian Weber Quartzite consisting of pale gray tan weathered quartzite and limy sandstone with some inter bedded gray to white limestone and dolomite.

The majority of the excavation materials from the site are expected to be weathered quartzite and white limestone and dolomite. These materials are generally easy to process into compactable and workable fill material through the use of conventional earthmoving equipment.

EXCAVATION

In an effort to reduce the excavation impact of the Treasure Project and to improve efficiency, the project team has developed two refinements referred to as version 17.1 and version 17.2 respectively to the 2009 Treasure Conditional Use Plan packet. The first refinement, version 17.1, is partially the result of further analysis of the geologic structure of the excavation site that allows steeper cut slopes. These modifications to the “cliffscape” cut slopes reduce the disturbed area of the excavation and reduce the anticipated excavation quantities.

Other refinements contained in version 17.1 are shifting commercial and residential back to the Midstation Site at the request of the present PCMC staff and massing adjustments to address what has been previously stated by the Park City Planning Commission.

The second refinement, version 17.2, contains individual refinements to the overall plan and site that reduce and shift the footprint, reduce accessory space, resulting in further reduction of site disturbance and excavation limits and quantities. This plan refinement was developed in response to the comments from the Planning Staff and Planning Commission during the more recent Conditional Use Permit Application meetings taking place in 2016-2017.

Other refinements of version 17.2 include more efficient parking and underground driveways and redistributing building massing in order to achieve the density allowed by the Sweeney Master Plan.

The 2009 plan, refinement 17.1, and refinement 17.2 "neat line" quantities of total material to be excavated are listed below.

Estimated Material Quantities

The overall concept of the excavation operations is to manage and place the excavated materials principally on site and to a lesser extent on the adjacent Park City Mountain (Resort) property. The excess excavation material not used for the restoration of the building sites will be transported to material placement sites higher on the Sweeney Master Plan property and the adjacent Park City Mountain (Resort) property. Three primary material placement zones have been identified on exhibit E-2.0. The concept is to strip the existing topsoil and layback the soils in a berm that is then used in the revegetation and restoration operation. The three placement zones have capacity to accept the estimated excess excavated material that will be generated by the construction of the Treasure buildings including parking garages and landscape features. The purpose of managing the excavated material on site is to reduce construction related trips to and from the Project and thus significantly reduce the impact of the Project on surrounding neighborhoods and streets.

Volumetric analysis of the excavation required for the construction of the Treasure Project was performed and presented to the PCMC Planning Commission in 2008-2009 and is summarized in the Excavation Management Plan, December 15, 2008, prepared by Alta Engineering, (ref. 3). A topographic analysis of the above referenced excavation template with the existing topography was performed in 2016-2017 to verify and confirm the previous volumetric analysis. The estimated excavation quantities listed below are "neat line" template quantities and do not account for material "swell" or expansion. For placement operations and zone capacity a swell factor of 25% was used to estimate the expected quantity of material to be transported and placed in the material placement zones.

The site can be divided into four main excavation sites as shown on exhibits E-1.0 and E-1.1. Listed below are the estimated "neat line" quantities of total material to be excavated.

2009

Entry Level Site	Buildings 3A,3B3C, 4A	240,000 cy
Mid Level Site	Building 4B	270,000 cy
Upper Level Site	Buildings 5A,5B,5C,5D	275,000 cy
Mid Station Site	Buildings 1A,1B,1C	175,000 cy
	Estimated Total	960,000 cy

17.1 Refinement

Entry Level Site	Buildings 3A,3B3C, 4A	240,000 cy
Mid Level Site	Building 4B	270,000 cy
Upper Level Site	Buildings 5A,5B,5C,5D	252,000 cy
Mid Station Site	Buildings 1A,1B,1C	143,000 cy
	Estimated Total	905,000 cy

17.2 Refinement

Entry Level Site	Buildings 3A,3B3C, 4A	232,000 cy
Mid Level Site	Building 4B	265,000 cy
Upper Level Site	Buildings 5A,5B,5C,5D	236,000 cy
Mid Station Site	Buildings 1A,1B,1C	135,500 cy
	Estimated Total	868,500 cy

The four sites can be separate excavation operations or can operate concurrently. The initial phase will most likely be to establish the entry level site adjacent to Lowell and Empire Avenues. This site could then serve as the initial staging area and contain the erosion control and storm water structures necessary for the subsequent phases. This staging area will proactively implement landscaping, sound abatement, and other screening measures to mitigate the excavation impacts on the immediate surrounding neighborhoods. Each subsequent excavation operation can then follow different phasing schemes.

It is likely that lift and ski run improvements and the associated excavation will proceed concurrently. However it is conceivable that lift improvements may occur in advance of, or after other excavation operations. The critical item dictating the schedule of the lift improvements is that the lifts be operational with sufficient skiable terrain each ski season.

Three primary material placement zones are identified on exhibit E-2.0. The primary placement zone is the Creole Gulch which is supplemented with the Kings Crown and Payday placement zones. The grading of the excavated material is designed to improve the existing ski run system into the Old Town service area including improving the beginner/ intermediate experience. Listed below are the placement zones and the estimated capacities.

	Area (Acres)	Capacity (CY)
Creole Zone	16.0	1,040,500
Kings Crown Zone	6.0	117,500
Payday Zone	5.5	86,000

Excavated Material Management and Placement

Applied Geotechnical Engineering Consultants (AGEC), a regional geotechnical consulting firm headquartered in Salt Lake City, Utah, with extensive knowledge of the Treasure Site, has been involved in studying and defining parameters for the current refined Treasure CUP. AGEC has provided a technical review that outlines it's confirmation of the viability of the submitted placement and excavation design. (ref. 4)

Robinson Construction Group LLC (Robinson), a large regional excavation and heavy civil construction company headquartered in Provo, Utah, was retained to study the current Treasure CUP application packet items pertaining to excavation and materials placement. Robinson has provided an opinion letter verifying the construction method feasibility and general construction time frame. (ref. 5)

A construction protocol for the excavation operations and materials placement with final geotechnical design will be followed with quality control measures incorporated into the construction process as further defined in the code defined building permit process. The protocol outlining the proposed final design grading and revegetation methods are anticipated to also be further defined in the code required building permit process.

SOIL MANAGEMENT & WATER SOURCE PROTECTION

Soil Management

The Treasure Project is not part of, nor does the Treasure Project intend to become part of the Park City Soil Overlay Zone. The above referenced comprehensive Phase 1 Environmental Site Assessment found "no evidence of recognized environmental conditions" except for four defined historic mine waste areas that contained significant concentrations of arsenic and lead. The above referenced report recommends a protocol of maintaining the soil onsite and capping it to comply with current regulations. The total quantity of the mine waste areas is estimated to be less than 3,500 CY. (ref. 6)

Accordingly, the concentrated material will be encapsulated if necessary, and buried on site in environmentally acceptable areas. The material placement will follow protocol standards of the EPA and State of Utah Department of Environmental Quality (DEQ).

Water Quality

Hansen Allen & Luce Consultants (Hansen), a regional Hydro-Geologic and Hydrology consulting firm headquartered in Salt Lake City, Utah, with prior knowledge of the PCMC Spiro water source, has been retained to study the hydrogeology and storm water hydrology of the Treasure Project. Hansen has provided a technical review that summarizes the evaluation of the hydrogeology of the excavation and material placement sites and concludes that construction of the Treasure Project does not pose a risk to the Park City water sources. (ref. 7)

STORM WATER MANAGEMENT

Storm water management is divided into the construction phase management and post construction operational management.

Construction Phase

It is expected that construction phase storm water management will entail the design of a construction storm water management plan and the procurement of a Storm Water Pollution Prevention Plan (SWPPP) permit for the entire project. The items to be employed will include a storm water detention facility with supportive erosion control fencing and channeling. The development of the construction storm water management plan together with the pollution control best management practices will be a coordinated effort between the Treasure general contractor and the Park City Building Department. It is anticipated that a comprehensive plan will be designed to include the entire construction operations of the Project and that the comprehensive plan will be put in place as part of the initial building permit to be issued for the below grade segment of the project.

Post Construction

The Post Construction Management will rely on a designed internal storm drain collection system that will be maintained by the master condominium management association. Onsite retention will be provided in accordance with the MS-4 requirements through the use of onsite surface features and augmented with subsurface holding structures where required. Onsite detention facilities will be designed to meet the

individual requirements of each of the components of the Project in the final design and building permit phase.

The internal collection system will utilize the existing municipal infrastructure in 8th Street for the outfall connection. The ongoing practices and design facilities of the post construction design will be in accordance and comply with the Park City Storm Water Master Plan and the State of Utah MS-4 Program.

SERVICE UTILITIES

Storm Sewer & Culinary Water
Provider: Park City Municipal

The planned internal storm water collection system and planned outfall are shown on the Concept Utilities Plans exhibits E-4.0 and E-4.1. The Project detention system will be designed to keep the post development storm water outflow rates equal to the predevelopment outflow rates. These facilities will be engineered and designed as part of the final design process.

The water service and fire flow requirements of the Treasure Project were discussed with the Park City Public Works Department and it was determined that a 12" dedicated water main is required. Accordingly a 12" water main as per PCMC Public Works requirements will be installed in the Lowell right of way in a PCMC dedicated corridor concurrent with the Treasure Project Construction.

The Treasure Project acknowledges the financial responsibility of the required improvements to offsite infrastructure made necessary by the development of the Project.

Sanitary Sewer
Provider: Snyderville Basin Water Reclamation District (SBWRD)
The Concept Utilities Plan was submitted to SBWRD June 05, 2017, and a service provider letter was received on June 14, 2017. (ref. 8)

Telecommunications
Provider: fiber optics provider of choice
The Concept Utilities Plan was submitted to Comcast May 30, 2017, and a service provider letter was received May 30, 2017. (ref. 9)

Power
Provider: Rocky Mountain Power
The Concept Utilities Plan was submitted to Rocky Mountain Power May 30, 2017, and a service provider letter was received June 7. 2017. (ref. 10)

Natural Gas
Provider: Questar Inc.
The Concept Utilities Plan was submitted to Questar May 30, 2017, and a service provider letter was received May 31, 2017. (ref. 11)

Concept Alternative Energy Sources
Geothermal and solar systems will be considered during final design according to any applicable ordinances subject to maintaining exterior heat melting systems integral to the Fire Protection Plan and Project snow management.

CONSTRUCTION PHASE ACTIVITIES

Construction Impacts of Traffic, Environmental Quality, Noise

Big-D Construction Corporation (Big-D), a large regional, multi-disciplined construction company headquartered in Salt Lake City, Utah, was retained to study the Treasure CUP application and provide an outline of construction method feasibility, a general construction time frame, and to address proposed traffic management of construction personnel and construction material deliveries. Big-D made three presentations to the Planning Commission on January 26, 2005, January 11, 2006, and February 8, 2006 (ref. 12). The presentations provided an overview of the traffic reduction methods to be used such as offsite parking for construction personnel with planned shuttles to the job site and coordinated material delivery routes and managed hours of delivery. The presentations discussed environmental controls and the SWPPP compliance procedure. The mitigation measures to address construction phase noise, dust control, and public communications were discussed with an acknowledgement of sensitivity to the surrounding neighborhoods and the desire to buffer the construction impacts as much as possible.

Big-D has provided an updated opinion letter that reviews the current refined Treasure CUP with regard to the prior proposed management practices. The memorandum reaffirms and updates certain measures and approaches discussed in the previous presentations referenced above. (ref. 13)

Excavation of the site may require blasting as part of the construction process When necessary due to hard rock conditions, blasting is a more efficient construction methodology with less environmental impact and disruption than the alternatives of hammer drilling or tedious ripping with large dozers/tractors or excavators. A presentation and a comprehensive report discussing the construction protocol, safety, and effects of blasting was presented to the Planning Commission on March 08, 2006, (ref. 14). The conclusion of the report is that blasting can be designed and managed to effectively aid in the excavation process with minimal impacts to the surrounding areas and neighborhoods. The included report's evaluations and conclusions, based on current industry standards remain a valid assessment of the blasting operations anticipated.

Construction Phasing

The initial excavation of the site will most likely be concentrated in the entry level site shown on Exhibit E-1.0. This zone will serve as the initial staging area that will contain the storm water management to be utilized throughout the construction phase.

The Treasure Project anticipates that a building permit will be issued for the below grade work either as an overall permit or a series of phase dependent permits. A subgrade permit would include the grading, excavation, material placement and the construction of the parking structure(s) that would then be pad ready for construction of the associated above grade structures. Permits can then be submitted sequentially or concurrently for construction of the subsequent above grade structures as appropriate.

During the initial phase of excavation and parking structure construction, the Town Lift(s) will operate each ski season and ski access into the Old Town Core area will remain a priority and will be maintained to the reasonable extent practicable with all presently functioning ski routes restored and new routes added as soon as possible as construction progresses.

Construction Staging

The overall concept of construction staging will be to expeditiously establish an initial staging area on site, then construct and move as much activity as possible into the parking structures as soon as possible. As construction progresses staging can move further into the property away from the adjacent neighborhoods. Early establishment of the initial staging area will serve for construction of the first section of the underground parking structure, most likely the parking structure under the Midtation site. This approach will bring almost all construction related activities immediately onsite. Berming, fencing, screening, and aggressive re-vegetation will be employed as noise and visual abatement measures. As staging moves further into the site, intervening landscaping to create a visual barrier will be completed.

Due to the requirement for ambulances to be able to be driven throughout the parking structures and fire trucks through portions of the parking structures, and the enhanced dimensions of the parking spaces and driveways, the parking structures and associated surface routes to the interior of the Project will serve particularly well for construction staging on site screened from the neighbors.

The overall construction schedule will be developed through a collaborative effort with the PCMC building department and will adhere to current Park City ordinances at the time of building permit application. Detailed mitigation measures will be defined and coordinated through the Building Department and will be incorporated in the construction mitigation plan submitted as part of the code required building permit process.

Summary of Construction Mitigation

Listed below are some key mitigation measures. The mitigation measures mentioned or referenced in this report will be part of a mitigation plan satisfactory to PCMC, fully developed, implemented, and monitored during all phases of construction.

Construction Traffic

- The enhanced road section on Lowell Avenue will be used for heavy loads.
- Significant offsite parking for employees and shuttles to the Project will be provided.
- Material deliveries will be coordinated and adhere to a traffic control plan and will be limited to favorable weather conditions on delivery routes.
- Excavated waste material will be placed onsite and the adjacent Park City Mountain to the greatest extent possible resulting in reduced construction haul traffic on access routes.
- Traffic Control meetings will be held regularly addressing employee parking, safety, and noise.
- A project website will be maintained to communicate schedules to neighbors as well as receive input from neighbors; the construction superintendent will be available to communicate directly with neighbors.

Environmental Impacts

- Fencing, screening, and berms will be installed and proactive re-vegetation will occur.
- Material deliveries will be coordinated and adhere to an agreed upon traffic control plan.
- Deliveries will be limited to favorable weather conditions on delivery routes.
- Noise levels will be limited in accordance with the Noise Ordinance at the time of building permit issuance.
- Construction work hours (and associated noise) will comply with Park City ordinances and, nonetheless, hours will be reduced and/or skeleton crews used during busy holidays periods and special events.

- Environmental protection (temporary erosion and sedimentation control facilities) will be installed in accordance with Best Management Practices.
- Fugitive dust control measures will be employed according to DEQ standards.
- If necessary, a wash station will be installed on site to decrease tracking of mud and dirt onto City streets; dirt and debris carried from the construction site on tires of vehicles to the street will be removed at the end of each working day.

Construction Schedule

- Construction will progress for each phase adhering to the principal of "time is of the essence" with no period of inactivity (except for special events, holidays, and necessary re-scheduling due to unforeseen circumstances such as inclement weather, and periods of inactivity between phases).
- A construction schedule will be submitted and approved by the City and updated periodically for each phase of the Project.
- Hours of Construction will comply with Ordinances in place at the time of building permit issuance.

Construction Staging

- Initial Construction Staging will be expeditiously established on site and internalized to the extent practical and as soon as possible inside the Project parking structures.
- Pro-active re-vegetation will be scheduled to occur as soon as practical and installed and maintained in accordance with the approved construction mitigation plan.
- Material placement and laydown will be carefully managed onsite.
- Staging will move further towards the interior of site as construction progresses.

EXHIBITS

E 1.0 Refinement 17.1 Excavation Volumes
E 1.1 Refinement 17.2 Excavation Volumes
E 2.0 Material Placement Zones
E 3.0 Vicinity Map & Ski Run Grading
E 4.0 Refinement 17.1 Concept Utility Plan
E 4.1 Refinement 17.2 Concept Utility Plan

APPENDIX

Ref. 1 Historic Soils Studies: Rollins June 1977; Lund May 1979;
SHB Agra; Project No. E 93-22-67 April 22, 1994

Ref. 2 ESA AGEC P.C.; Project No. 1051008 October 12, 2005

Ref. 3 EMP Alta Engineering Inc.; December 15, 2008

Ref. 4 Applied Geotechnical Engineering Consultants: Project No. 1160503 May 17, 2017;
Project No. 1030820 October 7, 2003; Project No. 1160503 September 8, 2016;
Project No. 1160503 January 10, 2016

Ref. 5 Robinson Construction Technical Letter; May 24, 2017

Ref. 6 Quantities; Alliance Engineering Technical Letter; January 27, 2006

Ref. 7 Hansen Allen & Luce Consultants; Project No. 344.150.100 May 25, 2017

Ref. 8 Snyderville Basin Water Reclamation Service Provider Letter

Ref. 9 Telecommunications Service Provider Letter

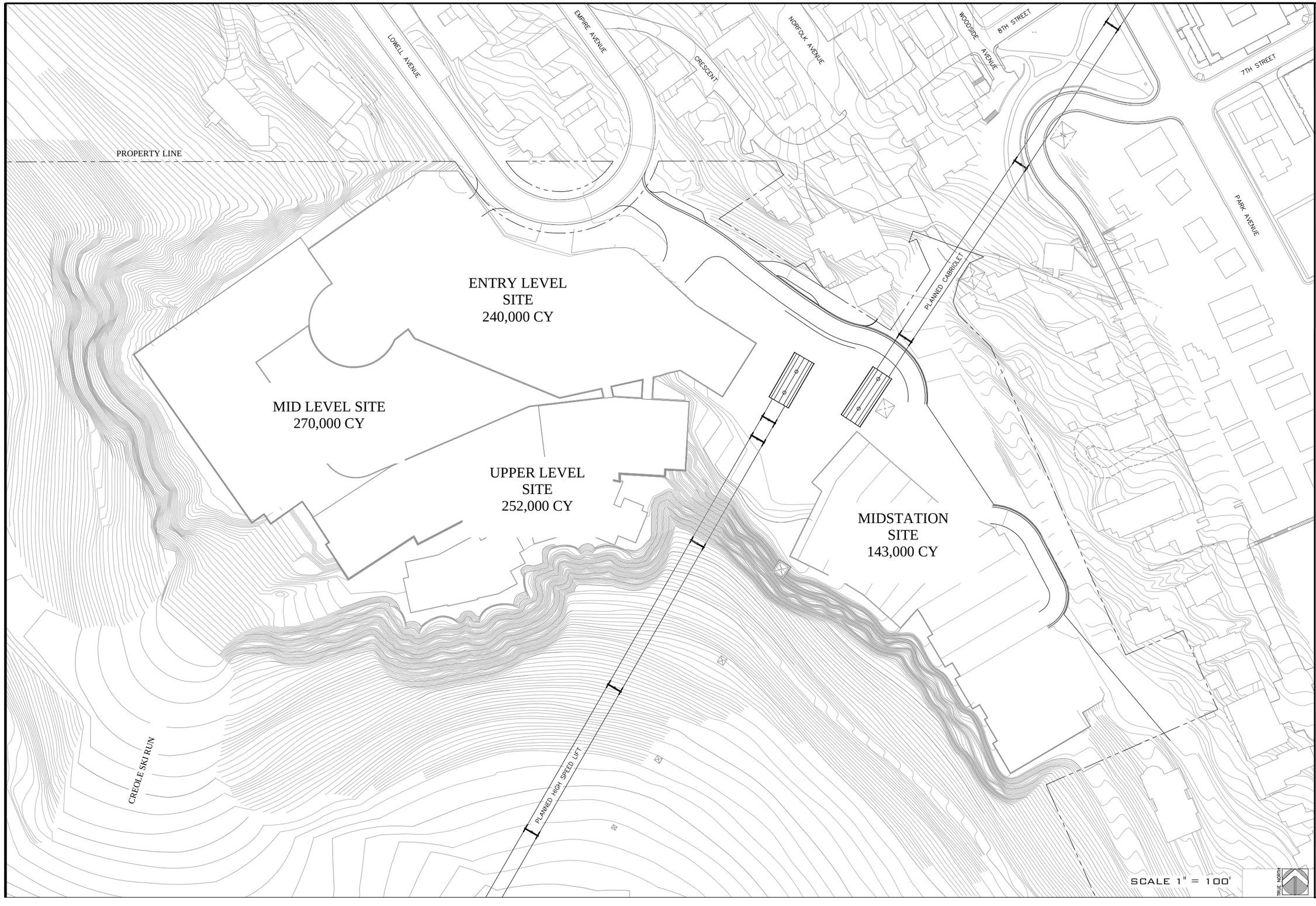
Ref. 10 Rocky Mountain Power Service Provider Letter

Ref. 11 Questar Gas Service Provider Letter

Ref. 12 Big D Construction Presentations to Planning Commission:
January 26, 2005
January 11, 2006
February 8, 2006

Ref. 13 Bid-D Construction Technical Letter; May 30, 2017

Ref. 14 Blasting Analysis Report; March 05, 2006



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REGISTERED PROFESSIONAL ENGINEER
No. 349961
ROBERT J. McMAHON
STATE OF UTAH

ALTA ENGINEERING INC.
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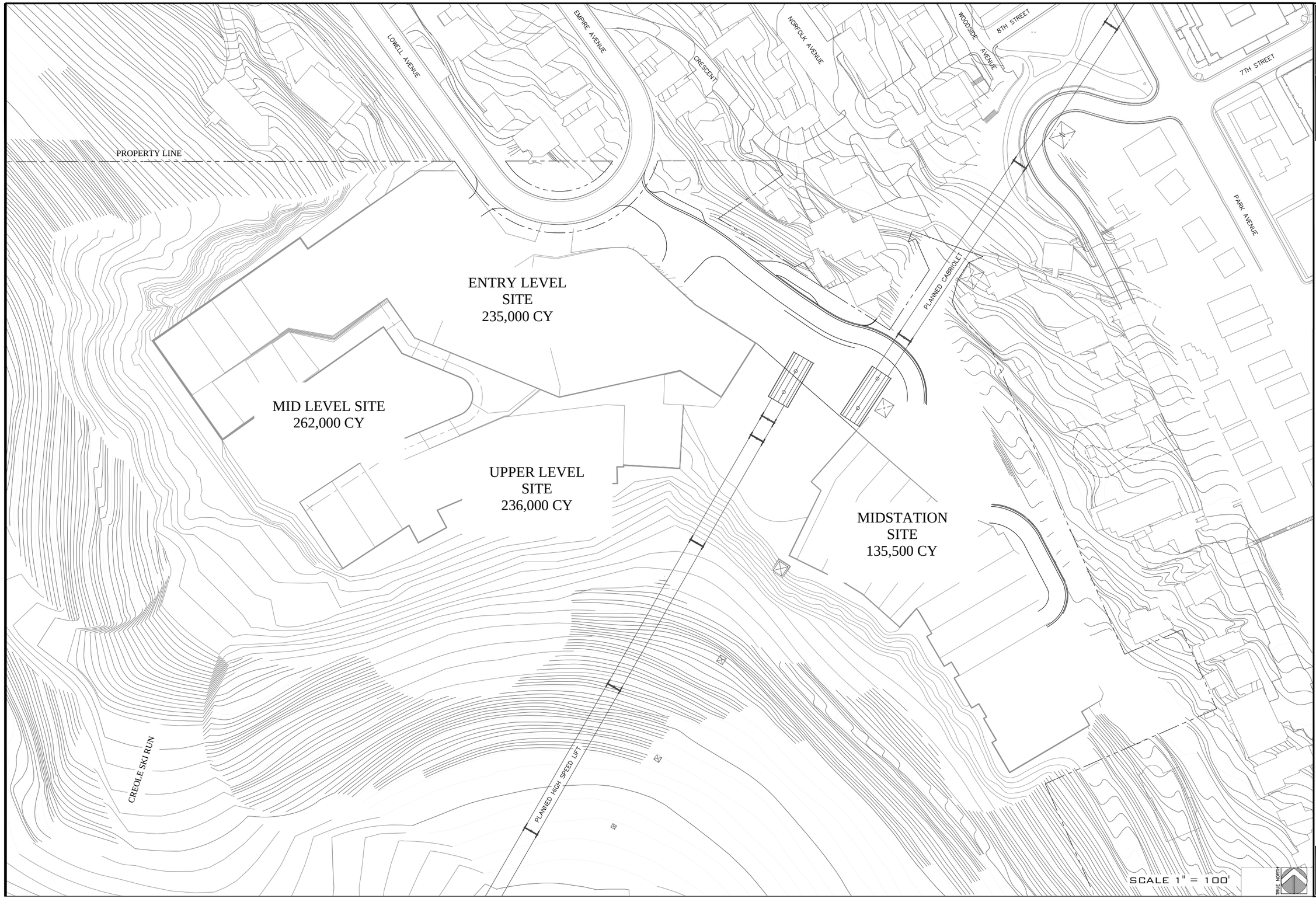
PO BOX 3864 PARK CITY, UTAH 84060 435-649-9191

FOR: MPE INC.

TREASURE
REFINEMENT 17.1
EXCANATION SIE & VOLUMES

SHEET NO:
E1.0



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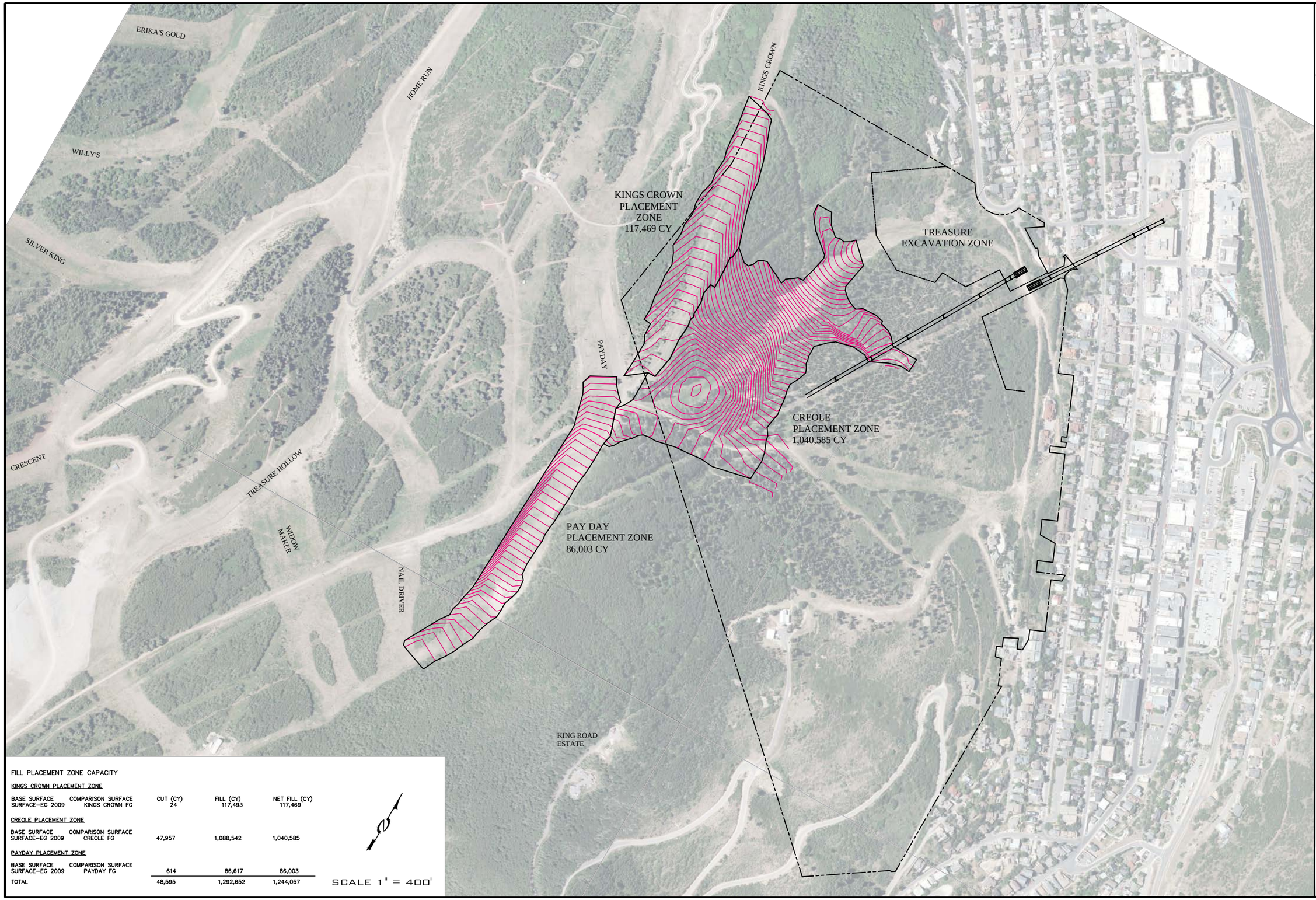
TREASURE
REFINEMENT 17.2
EXCAVATION VOLUMES

SHEET NO:
E1.1



FILL PLACEMENT ZONE CAPACITY

		CUT (CY)	FILL (CY)	NET FILL (CY)
KINGS CROWN PLACEMENT ZONE				
BASE SURFACE SURFACE–EG 2009	COMPARISON SURFACE KINGS CROWN FG	24	117,493	117,469
CREOLE PLACEMENT ZONE				
BASE SURFACE SURFACE–EG 2009	COMPARISON SURFACE CREOLE FG	47,957	1,088,542	1,040,585
PAYDAY PLACEMENT ZONE				
BASE SURFACE SURFACE–EG 2009	COMPARISON SURFACE PAYDAY FG	614	86,617	86,003
TOTAL		48,595	1,292,652	1,244,057

SCALE 1" = 400'

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FILE: TREASURE

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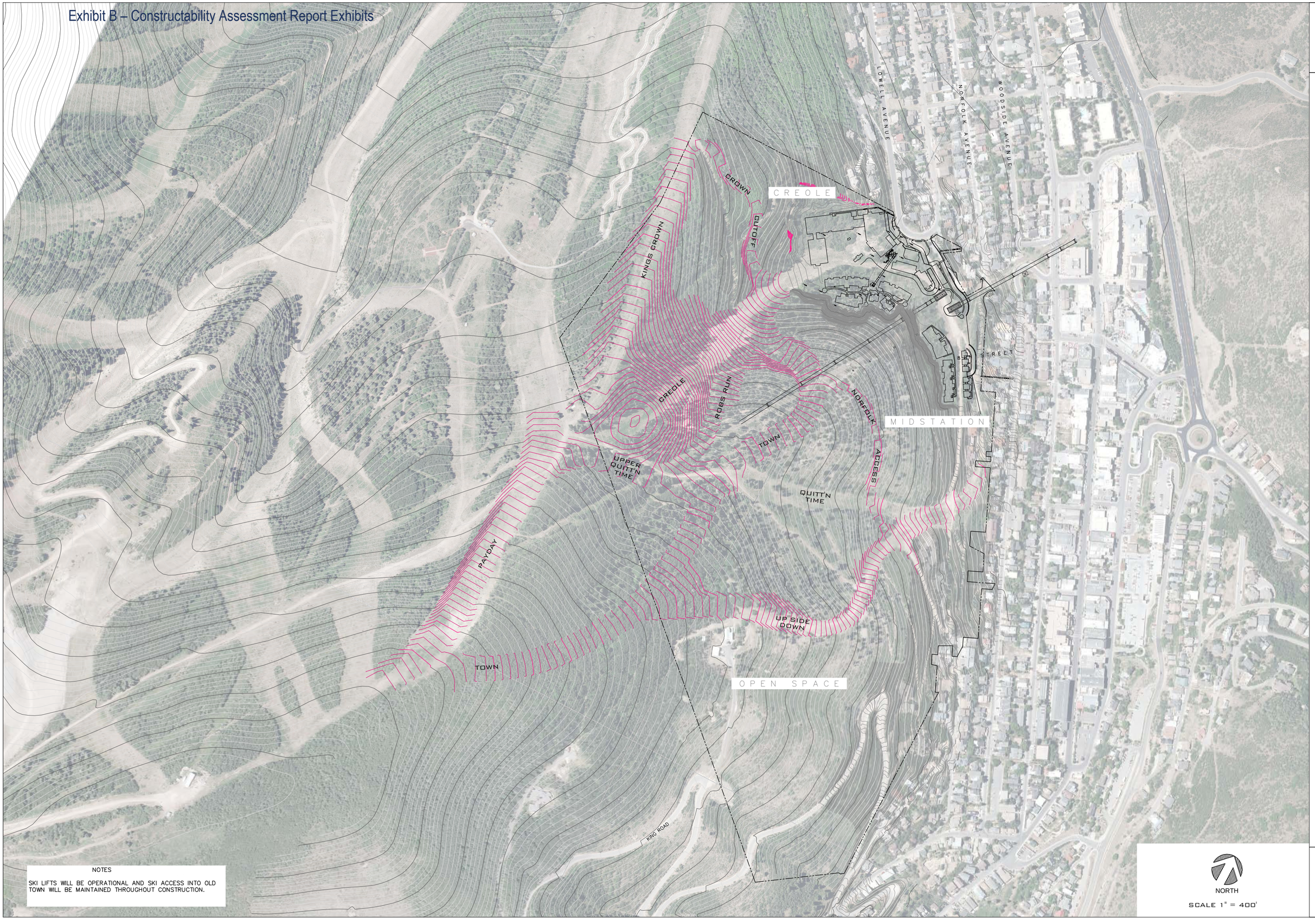
TREASURE
REFINEMENT 17.1
MATERIAL PLACEMENT ZONES

SHEET NO: E2.0



NOTES

SKI LIFTS WILL BE OPERATIONAL AND SKI ACCESS INTO OLD TOWN WILL BE MAINTAINED THROUGHOUT CONSTRUCTION.

NORTH

SCALE 1" = 400'

REVISION

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P.O Box 2429
Park City, Utah 84060
(435) 901-2077
email: psbro29@mac.com

VICINITY MAP & SKI RUN GRADING

TREASURE HILL - PARK CITY, UTAH

SHEET NO.

E 3.0

DATE: JUNE 26, 2017

EXTEND NEW 12" WATER MAIN TO PROJECT CONNECTION
PROPERTY LINE
OVERHEAD POWER LINE
LOWELL AVENUE
EXTG SBWRD MH# 2-4-16-123
EXTEND NEW PUBLIC SS MAIN
EXTG SBWRD MH# 2-4-16-259
NORFOLK AVENUE
WOODSIDE AVENUE
8TH STREET
SD INLETS (TYP)
8" INTERNAL WATER MAIN TO BE LOOPED
SANITARY SERVICE LATERAL
8" INTERNAL WATER MAIN TO BE LOOPED
SANITARY SEWER MANHOLE (TYP)
PROPOSED 8TH STREET STAIRS
STORM DRAIN OUTFALL TO EXISTING SDMH
CRESENT WALKWAY
PLANNED CABRIOLET
7TH STREET
SD INLETS (TYP)
WATER SERVICE LATERAL
SANITARY SERVICE LATERAL
WATER SERVICE LATERAL
SANITARY SERVICE LATERAL
8" INTERNAL WATER MAIN TO BE LOOPED
PLANNED HIGH SPEED LIFT
TOWN SKI RUN
MIDSTATION
TRENCH DRAIN (TYP)
SD MANHOLE (TYP)
SD INLET (TYP)
PROPOSED 6TH STREET STAIRS
STORM DRAIN OUTFALL TO EXISTING SD MANHOLE
HEBER AVENUE
PARK AVENUE
WOODSIDE AVENUE

CONCEPT UTILITY NOTES

MASTER WATER METERS WILL BE LOCATED IN MECHANICAL ROOMS IN PARKING GARAGES.

HIGH DENSITY POLYETHYLENE (HDPE) SEWER MAIN WILL BE USED WHERE PRACTICAL.

STORM DRAIN OUTFALL CONNECTION TO THE PCMC STORM DRAIN SYSTEM WILL BE COORDINATED AT TIME OF BUILDING PERMIT APPROVAL.HIGH DENSITY POLYETHYLENE (HDPE) STORM DRAIN WILL BE USED ON ALL PRIVATE STORM DRAINS.

INTERNAL WATER, SEWER, AND STORM DRAIN MAINS TO BE LOCATED WITHIN PARKING GARAGES WITH ACCESSIBLE MANHOLES AND APPURTENANCES.

A 12" WATER MAIN WILL BE INSTALLED BY THE OWNER IN ACCORDANCE WITH THE PARK CITY ENGINEERING REQUIREMENTS IN THE LOWELL AVENUE ROW TO SERVE AS THE WATER SUPPLY FOR THE FIRE SUPPRESSION AND CULINARY WATER SYSTEMS FOR THE PROJECT. THE INSTALLATION OF THE WATER MAIN WILL OCCUR AS PART OF THE CONSTRUCTION PROCESS.

SCALE 1" = 100'

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TREASURE
REFINEMENT 17.1
CONCEPT UTILITY PLAN

SHEET NO:
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EXTEND NEW 12" WATER MAIN TO PROJECT CONNECTION
PROPERTY LINE
OVERHEAD POWER LINE
LOWELL AVENUE
EXTG SBWRD MH# 2-4-16-123
EXTEND NEW PUBLIC SS MAIN
EXTG SBWRD MH# 2-4-16-259
NORFOLK AVENUE
WOODSIDE AVENUE
8TH STREET
SD INLETS (TYP)
8" INTERNAL WATER MAIN TO BE LOOPED
7115.0
7095.0
7085.0
7153.0
7179.0
SANITARY SERVICE LATERAL
8" INTERNAL WATER MAIN TO BE LOOPED
SANITARY SEWER MANHOLE (TYP)
7127.0
PROPOSED 8TH STREET STAIRS
STORM DRAIN OUTFALL TO EXISTING SDMH
CRESENT WALKWAY
PLANNED CABRIOLET
7TH STREET
SD INLETS (TYP)
WATER SERVICE LATERAL
SANITARY SERVICE LATERAL
WATER SERVICE LATERAL
SANITARY SERVICE LATERAL
7220.0
7210.0
8" INTERNAL WATER MAIN TO BE LOOPED
HEBER AVENUE
PARK AVENUE
WOODSIDE AVENUE
TRENCH DRAIN (TYP)
SD MANHOLE (TYP)
PROPOSED 6TH STREET STAIRS
SD INLET (TYP)
STORM DRAIN OUTFALL TO EXISTING SD MANHOLE
PLANNED HIGH SPEED LIFT
TOWN SKI RUN
MIDSTATION

CONCEPT UTILITY NOTES

MASTER WATER METERS WILL BE LOCATED IN MECHANICAL ROOMS IN PARKING GARAGES.

HIGH DENSITY POLYETHYLENE (HDPE) SEWER MAIN WILL BE USED WHERE PRACTICAL.

STORM DRAIN OUTFALL CONNECTION TO THE PCMC STORM DRAIN SYSTEM WILL BE COORDINATED AT TIME OF BUILDING PERMIT APPROVAL.HIGH DENSITY POLYETHYLENE (HDPE) STORM DRAIN WILL BE USED ON ALL PRIVATE STORM DRAINS.

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SCALE 1" = 100'

TRUE NORTH

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FOR: MPE INC.

TREASURE
REFINEMENT 17.2
CONCEPT UTILITY PLAN

SHEET NO:
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