

Appendix C

Revised Preliminary Grading and Stormwater Plan

PRELIMINARY GRADING
AND STORMWATER PLAN
SCOTTS VALLEY CASINO AND
TRIBAL COMMUNITY PROJECT

ACORN ENVIRONMENTAL

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GRADING & DRAINAGE EXISTING CONDITIONS

The subject property is a 160-acre undeveloped property comprising of four parcels. The 160-acre property has general elevations of 800-ft in the northeast corner of the property to 130-ft at the southern end of the property. The property generally grades at 13% across the property from north to south, with several mounds and hills throughout the property that divert existing runoff to earthen channels. There are two existing earthen channels that run through the property, as denoted with alluvium soil in the Geotechnical Report. These channels both run from northeast to southwest, across the midpoint of the existing property. These channels convey existing runoff from the subject property, as well as a portion of the neighboring property to the east that drains towards the subject property. The channels eventually outfall to an existing wetland on the adjacent parcels. This wetland has been mapped and is denoted in Exhibit A.

PROPOSED GRADING

Kimley-Horn has evaluated grading solutions for alternatives A, B, and C. The proposed grading aims to balance the overall earthwork onsite while matching the natural grade, where possible. Grading schemes are designed such that all internal roadway flooding is prevented during a 10-year storm and all flooding from the 100-year storm can be managed before the elevation of habitable structures. All three proposed alternatives will require fill for building foundations. There are four existing landslides on the subject property. The northernmost landslide is referred to as the Hunter Hill landslide and the central landslide is referred to as the Eastern Landslide Complex. Additionally, there are two smaller unnamed landslides on the property. Proposed grading activities will avoid excavation into the landslide and setbacks or will provide mitigation measures required when excavation into the setback is required. To balance earthwork onsite, soils will be excavated from specified areas to provide fill material to the rest of the proposed project. The intent of the onsite excavation is to avoid importing offsite earthwork where possible. The proposed grading schemes of each of the alternatives are detailed below.

Alternative A – Proposed Project

The proposed finished floor elevations (FFE) of the gaming facility were determined by matching the existing grade at the north end of the building. The north end of the building is required to match the existing surface elevation to avoid excavating within the existing Eastern Landslide Complex and a 150' landslide setback. The roadway proposed northeast of the building has been designed within the 150' setback but remains outside the 100' landslide setback. This roadway has been designed 5'-40' above existing elevation to add earthwork fill within the landslide setback area. The addition of this fill is to aid in the stabilization of the landslide toe.

The proposed building entrance elevation is set at 266' on the eastern side of the gaming facility. The FFE of the floors above and below the main entrance floor were determined based on required floor heights. The proposed gaming facility is to be built above the existing surface elevations, requiring geotechnically approved fill to be brought underneath the building. A proposed utility area, comprising of a water treatment plant, wastewater treatment plant, and two water storage tanks, is located south of the proposed casino building. The elevations of these utility equipment pads have been set below the adjacent roadway, to provide an excavation area that will provide fill material for the rest of the site and will set the equipment pads lower than surrounding areas for visual screening. West of the proposed gaming facility and utility area is an existing 100' PG&E powerline easement. Proposed



grading activities are to be performed outside of the existing easement everywhere except along the western side of the casino building. In this area, a proposed roadway will provide access to the existing power pole, which will remain at its existing elevation. The limit of grading lines shown on Exhibit B denote the edge of the proposed grading activities.

The southern access road, which leads to the site egress point to the east, slopes down at 8% to match existing elevation and reduce the need for fill material. The northern road, which leads to the tribal housing, rises at an average of 12%. The proposed grading for this road and tribal housing remains outside of the unnamed landslide to the north.

The tribal housing and tribal administration building are located within a large, steep existing slope. The FFEs of the proposed housing and administration buildings are to be set at or below existing elevations. This will provide minor cut into the Hunter Hill landslide crest, which will help stabilize the landslide. A remedial grading solution may be appropriate in this area to include the removal of landslide deposits and construction of a keyway and benched fills to provide stability for the proposed housing development. See geotechnical report for additional information.

Four major site retaining walls are proposed on the site. One is at the northernmost end of the project at the tribal housing area. This wall is proposed to be +/- 30' high. The second is near the existing offsite water tower. This wall is proposed to be +/- 16' high. This wall is not in conflict with the existing water tower and the water tower does not pose additional loading on the proposed wall. The final two walls are proposed at the utility yard area. This is to keep the utility yard lower in elevation on the site, both to create additional excavation and provide visual screening from other areas on site. This results in one 30' max wall along the onsite roadway and one 65' max wall along the PG&E easement. It is understood that the 65' wall may require additional soil tiebacks to stabilize a wall of this height. The wall is proposed 10'-15' horizontally away from PG&E easement to ensure the tiebacks will encroach into the PG&E easement as little as possible. It is understood that these tiebacks will be allowed to be underground within the PG&E easement, as they will not alter the existing elevations within the easement and will not undermine the stability of the existing power pole in the area.

The proposed surface elevations of the gaming facility, housing and the roadways result in a total of roughly 655,000 cubic yards (CY) of required fill. The proposed development creates an overall 504,000 cubic yards (CY) of cut material, which will be reused on site as fill material. Therefore, the total net earthwork volume is roughly 151,000 cubic yards (CY) of imported fill material for the project.

Major excavation areas onsite include the tribal housing and administration area, as well as the wastewater utility yard. The excavation material provided from these areas will be reused as fill underneath the proposed casino gaming facility, as well as on top of the Eastern Landslide complex for added landslide stability. The required over-excavation volume for all proposed buildings is taken into account per the Geotechnical report. The total cut volume of the site includes 3' of cut per building footprint area. The total over-excavation volume for this Alternative is 63,000 cubic yards (CY). Additionally, the remedial grading required to remove the Hunter Hill landslide deposits and replace with building fill for the housing development has been included in the overall earthwork volumes above, and on Exhibit B.



Alternative B – Reduced Intensity Alternative

The grading scheme for Alternative B is the same as Alternative A for a majority of the site. The only difference is the removal of the tribal housing and administration buildings at the north end of the site.

The proposed finished floor elevations (FFE) of the gaming facility were determined by matching the existing grade at the north end of the building. The north end of the building is required to match the existing surface elevation to avoid excavating within the existing Eastern Landslide Complex and a 150' landslide setback. The roadway proposed northeast of the building has been designed within the 150' setback but remains outside the 100' landslide setback. This roadway has been designed 5'-40' above existing elevation to add earthwork fill within the landslide setback area. The addition of this fill is to aid in the stabilization of the landslide toe.

The proposed building entrance elevation is set at 266' on the eastern side of the gaming facility. The FFE of the floors above and below the main entrance floor were determined based on required floor heights. The proposed gaming facility is to be built above the existing surface elevations, requiring geotechnically approved fill to be brought underneath the building. A proposed utility area, comprising of a water treatment plant, wastewater treatment plant, and two water storage tanks, is located south of the proposed casino building. The elevations of these utility equipment pads have been set below the adjacent roadway, to provide an excavation area that will provide fill material for the rest of the site and will set the equipment pads lower than surrounding areas for visual screening. West of the proposed gaming facility and utility area is an existing 100' PG&E powerline easement. Proposed grading activities are to be performed outside of the existing easement everywhere except along the western side of the casino building. In this area, a proposed roadway will provide access to the existing power pole, which will remain at its existing elevation. The southern access road, which leads to the site egress point to the east, slopes down at 8% to match existing elevation and reduce the need for fill material. The limit of grading lines shown on Exhibit C denote the edge of the proposed grading activities.

Three major site retaining walls are proposed on the site. One is near the existing offsite water tower. This wall is proposed to be +/- 16' high. This wall is not in conflict with the existing water tower and the water tower does not pose additional loading on the proposed wall. The final two walls are proposed at the utility yard area. This is to keep the utility yard lower in elevation on the site, both to create additional excavation and provide visual screening from other areas on site. This results in one 30' max wall along the onsite roadway and one 65' max wall along the PG&E easement. It is understood that the 65' wall may require additional soil tiebacks to stabilize a wall of this height. The wall is proposed 10'-15' horizontally away from PG&E easement to ensure the tiebacks will encroach into the PG&E easement as little as possible. It is understood that these tiebacks will be allowed to be underground within the PG&E easement, as they will not alter the existing elevations within the easement and will not undermine the stability of the existing power pole in the area.

The proposed surface elevations of the gaming facility, utility yard and the roadways result in a total of roughly 624,000 cubic yards (CY) of required fill. The proposed development creates an overall 481,000 cubic yards (CY) of cut material, which will be reused on site as fill material. Therefore, the total net earthwork volume is roughly 143,000 cubic yards (CY) of imported fill material for the project.



A major excavation area onsite is the wastewater utility yard. The excavation material provided from this area will be reused as fill underneath the proposed casino gaming facility, as well as on top of the Eastern Landslide complex for added landslide stability. The required over-excavation volume for all proposed buildings is taken into account per the Geotechnical report. The total cut volume of the site includes 3' of cut per building footprint area. The total over-excavation volume for this Alternative is 48,800 cubic yards (CY).

Alternative C – Non-Gaming Alternative

Alternative C consists of proposed commercial, housing, hotel, and administrative buildings as well as a utility pad area. In general, the tribal housing is proposed on the north end of the site, the tribal admin buildings are proposed in the center of the site, and hotel and commercial buildings are proposed towards the south end of the site. The utility area, comprising of a water treatment plant, wastewater treatment plant, and two water storage tanks, is located on the east side of the site adjacent to the access road going east along Columbus Parkway. The FFEs of the tribal housing were set to closely match the existing surface elevations. The foundations are proposed on and near existing 10-30% sloped hillsides. The proposed flat foundations will require the addition of retaining walls throughout the site. The northernmost housing units will require a 50' retaining wall located 15' away from adjacent houses. The easternmost housing units will require 10' and 30' retaining walls located 15' away from adjacent houses.

The proposed housing units nearest to the existing water tank are located at the highest viable elevation to reduce lateral force exerted on the development from the existing water tank and associated structures. The houses are then proposed to be tiered down the existing 30% slope, which requires the addition of 10'-30' retaining walls.

The tribal administration buildings are located at the base of the existing slopes and are proposed at elevations near the existing surface elevations. The 20' retaining wall north of the tribal administration buildings is required due to the adjacent housing units being located 20' above the administrating buildings on the existing slope.

The proposed hotel buildings are located on top of a naturally occurring slope. The FFEs of the hotel buildings are at the existing surface elevations. Fill material will be required to flatten the slope and provide compliant building pads and surface parking lots. The fill material will be composed of soils excavated onsite. The southernmost commercial buildings adjacent to the hotel parcels are located at the toe of the same slope and will also require relocation of existing onsite soils as fill material. Grading activities are to avoid the landslide areas outlined by the geotechnical engineer of record and the 100' existing PG&E powerline easement. The grading scheme outlined above is shown on Exhibit D.

The proposed buildings and roadways result in a total of roughly 42,000 cubic yards (CY) of required cut. The northern path of the proposed entry road has been designed within the 200' landslide setback. This roadway has been designed 5'-10' above existing elevation to add earthwork fill within the landslide setback area. The addition of this fill is to aid in the stabilization of the landslide toe. The required over-excavation volume for all proposed buildings is taken into account per the Geotechnical report. The total cut volume of the site includes 3' of cut per building footprint. The total over-excavation volume for this Alternative is roughly 28,000 cubic yards (CY).

PROPOSED STORMWATER RUNOFF

Kimley-Horn has evaluated proposed stormwater runoff patterns for alternatives A, B, and C. The geotechnical engineer of record has provided Kimley Horn with an exhibit outlining the location of two naturally occurring water channels within the proposed project area. The existing water channels are referred to in this report as the northern existing channel and the southern existing channel. Both existing channels that are rerouted will outfall towards the existing wetland in their ultimate condition, which maintains existing drainage patterns.

Alternative A – Proposed Project

The existing southern channel conflicts with the proposed gaming facility development. The existing southern channel will be diverted via a swale around the north side of the gaming facility. The beginning of the diverted swale will be a concrete channel as it traverses through the eastern landslide complex. As it exits the landslide, the wash will be converted to an earthen swale to maintain natural conditions. The diverted swale will enter an existing riparian area along the western property line. The wash then re-enters the site at the southwest corner of the gaming facility and is conveyed into the existing wetland. This ultimate outfall into the wetland matches the existing flow pattern. The discharge location from the earthen swale into the wetland will dissipate towards the wetland to disperse the flow as it enters. A concrete swale is proposed along the eastern property line. This concrete swale is designed to capture offsite runoff flow from the adjacent eastern property. This offsite runoff will be conveyed via the concrete swale towards the existing wetland area. The swale will remain concrete until outside the existing landslide to the east of the wetland, after which it will be converted to an earthen swale to match natural conditions. This ultimate outfall matches existing runoff patterns. The discharge location from the swale into the wetland will dissipate towards the wetland to disperse the flow as it enters. The proposed swales are shown on Exhibit E.

The existing northern channel is not proposed to be diverted. However, there are proposed roadways that will cross the existing northern channel in several locations. Culverts are proposed underneath the roadways to convey the channel flow.

The northern channel, rerouted southern channel, and proposed concrete channel all outfall to the existing wetland area, which matches existing runoff conditions. The wetland will receive the same amount of volume as in the existing condition. However, the two points of entry to the wetland will be in new locations compared to existing conditions. The new points of entry will not affect total volume into the wetland; however, the points of entry will include earthen areas to disperse the flow prior to entering the wetland. The ultimate outfall from the wetland to the south of the property will remain unchanged.

Alternative B – Reduced Intensity Alternative

The existing southern channel conflicts with the proposed gaming facility development. The proposed diversion is the same as in Alternative A. The existing southern channel will be diverted via a swale around the north side of the gaming facility. The beginning of the diverted swale will be a concrete channel as it traverses through the eastern landslide complex. As it exits the landslide, the wash will be converted to an earthen swale to maintain natural conditions. The diverted swale will enter an existing wash along the western property line. The wash then re-enters the site at the southwest corner

of the gaming facility and is conveyed into the existing wetland. This ultimate outfall into the wetland matches the existing flow pattern. The discharge location from the earthen swale into the wetland will dissipate towards the wetland to disperse the flow as it enters. A concrete swale is proposed along the eastern property line. This concrete swale is designed to capture offsite runoff flow from the adjacent eastern property. This offsite runoff will be conveyed via the concrete swale towards the existing wetland area. The swale will remain concrete until outside the existing landslide to the east of the wetland, after which it will be converted to an earthen swale to match natural conditions. This ultimate outfall matches existing runoff patterns. The discharge location from the concrete swale into the wetland will dissipate towards the wetland to disperse the flow as it enters. The proposed swales are shown on Exhibit F.

The existing northern channel does not divert water through the proposed development and is to remain unaltered.

The northern channel, rerouted southern channel, and proposed concrete channel all outfall to the existing wetland area, which matches existing runoff conditions. The wetland will receive the same amount of volume as in the existing condition. However, the two points of entry to the wetland will be in new locations compared to existing conditions. The new points of entry will not affect total volume into the wetland; however, the points of entry will include earthen areas to disperse the flow prior to entering the wetland. The ultimate outfall of the wetland to the south of the property will remain unchanged.

Alternative C – Non-Gaming Alternative

The existing southern channel conflicts with the proposed housing development. The existing southern channel will be diverted via concrete or earthen swales around the proposed buildings. The swale will begin as a concrete swale, as it traverses through the existing eastern landslide complex. As it exits the landslide, the wash will be converted to an earthen swale to maintain natural conditions. There are proposed roadways that will cross the southern channel in several locations. Culverts are proposed underneath the roadways to convey the channel flow. The diverted flow is conveyed into the existing wetland. This ultimate outfall into the wetland matches the existing flow pattern. The discharge location from the earthen swale into the wetland will dissipate towards the wetland to disperse the flow as it enters. The proposed swale is shown on Exhibit G.

The existing northern channel will be diverted an earthen swale around the proposed buildings. The channel will cross proposed roadways in several locations. Culverts are proposed underneath these roadways to convey the channel flow. The diverted swale will enter an existing wash along the western property line. The wash then re-enters the site at the western property line and is conveyed into the existing wetland. This ultimate outfall into the wetland matches the existing flow pattern. The discharge location from the earthen swale into the wetland will dissipate towards the wetland to disperse the flow as it enters.

The northern channel and southern channel will outfall to the existing wetland area, which matches existing runoff conditions. The wetland will receive the same amount of volume as in the existing condition. The point of entry into the wetland will remain as it is in the existing conditions. The point of entry will include earthen areas to disperse the flow prior to entering the wetland. The ultimate outfall of the wetland to the south of the property will remain unchanged.

PROPOSED STORMWATER TREATMENT

Kimley-Horn has evaluated proposed stormwater treatment solutions for alternatives A, B, and C. The stormwater treatment design utilizes landscaped bioretention areas to treat the impervious runoff with approved low impact development designs. The proposed project areas have been delineated into multiple drainage management Areas (DMAs). All DMAs are associated with their own bioretention treatment area. The bioretention areas are sized to be 4% of the contributing impervious surface area. The area of tributary impervious surface multiplied by the 0.04 sizing factor will equal the required surface area of the bioretention area. This sizing factor is derived from the flow-based treatment standard (runoff from 0.2 in/hr intensity rainfall) and a desired surface loading rate of 5 in/hr through the biotreatment soil mix. Bioretention areas are located at low points to capture impervious area runoff. Existing landscape areas outside of the grading limits, but within the property limits, are denoted as “self-treating areas”.

Alternative A – Proposed Project

Alternative A requires 7 unique DMAs. The location and areas of the DMAs can be found on Exhibit E.

The tribal housing and tribal administration building, along with associated roadways, are in DMA “A”. The bioretention area treating DMA “A” is south of the impervious areas. Half of the roadway south of the tribal administration building and tribal housing is treated in DMA “B”. The bioretention area for DMA “B” is located at the middle point of the road. The second half of the same road, along with a northern portion of the building roof runoff, are treated within DMA “C”. DMA “D” consists of a small portion of roadway east of the gaming facility. Due to proposed grades, the runoff from DMA “D” requires its own unique bioretention area. DMA “E” delineated runoff from the southern portion of the building and adjacent roadways. DMA “F” collects runoff from the road south of the gaming facility and the utility pads, as makes sense per the proposed grading. DMA “G” collects runoff from the access road southeast of the gaming facility.

Alternative A requires 6 separate self-treatment areas (STAs). Each STA is delineated as a unique portion of the project consisting of undisturbed pervious area. Undisturbed pervious areas do not require low impact development-based treatment, such as bioretention area. A breakdown of individual DMA areas and bioretention calculations can be found under “Stormwater Treatment Calculations” on Exhibit E.

Alternative B – Reduced Intensity Alternative

Alternative B requires 5 unique DMAs. The location and areas of the DMAs can be found on Exhibit F.

DMA “A” delineates the surface runoff area from the northern portion of the gaming facility roof as well as adjacent roadways. Due to proposed grades, the runoff from DMA “B” requires its own unique bioretention area. The second half of the same road, along with a northern portion of the building roof runoff, are treated within DMA “C”. DMAs “D” and “E” collect runoff from the road south of the gaming facility as well as the proposed utility area to the southwest.

Alternative B requires 6 separate self-treatment areas (STAs). Each STA is delineated as a unique portion of the project consisting of undisturbed pervious area. Undisturbed pervious areas do not require low impact development-based treatment, such as bioretention area. A breakdown of individual



DMA areas and bioretention calculations can be found under “Stormwater Treatment Calculations” on Exhibit F.

Alternative C – Non-Gaming Alternative

Alternative C requires 12 unique DMAs. The location and areas of the DMAs can be found on Exhibit G.

The tribal housing area, along with associated roadways on the north side of the site, is split into DMAs “A”, “B”, and “C”. The runoff flows from the east to west to ultimately discharge into their own unique bioretention areas for DMAs “A”, “B”, and “C”. The tribal housing area on the western portion of the site is split into DMAs “D” and “E”. Runoff enters this area from the east and is collected into two unique bioretention areas designated for DMAs “D” and “E”, respectively.

The tribal housing area located on the east, adjacent to the water tank, is split into DMAs “F” and “G”. Runoff enters this area from the east, and ultimately discharges into two unique bioretention areas designated for DMAs “F” and “G”. The tribal admin building is located west of this tribal housing area and is considered as DMA “I”, which also has its own unique bioretention area south of the buildings.

The hotel parcels and commercial building areas make up DMA “J”, which contains a single bioretention area east of the buildings. The bioretention area captures the flow entering from the western portion of the site. DMA “L” comprises of the proposed asphalt concrete roadway and utility area. Runoff entering this DMA travels from the northwest to the southeast portion of the DMA, to ultimately discharge into the bioretention area located to the east.

Alternative C requires 4 separate self-treatment areas (STAs). Each STA is delineated as a unique portion of the project consisting of undisturbed pervious area. Undisturbed pervious areas do not require low impact development-based treatment, such as bioretention area. A breakdown of individual DMA areas and bioretention calculations can be found under “Stormwater Treatment Calculations” on Exhibit G.

EXHIBIT A – EXISTING CONDITIONS



EXHIBIT B – PROPOSED PROJECT – SCHEMATIC GRADING

LEGEND

- PROPERTY LINE
- EASEMENT LINE
- LIMITS OF GRADING
- PROPOSED BUILDING WALL AND OVERHANG
- EXISTING GROUND CONTOUR
- EXISTING SPOT ELEVATION
- PROPOSED SPOT ELEVATION
- EXISTING GROUND SLOPE
- PROPOSED GROUND SLOPE
- ASPHALT CONCRETE
- WETLAND AREA
- BIORETENTION AREA

PRELIMINARY EARTHWORK

CUT: 504,000 CY
 OVER-EX: 85,000 CY
 OVER-EXCAVATION ACCOUNTS FOR 3' OF ADDITIONAL EXCAVATION UNDER THE BUILDING PAD, WHICH IS INCLUDED IN THE OVERALL CUT QUANTITY

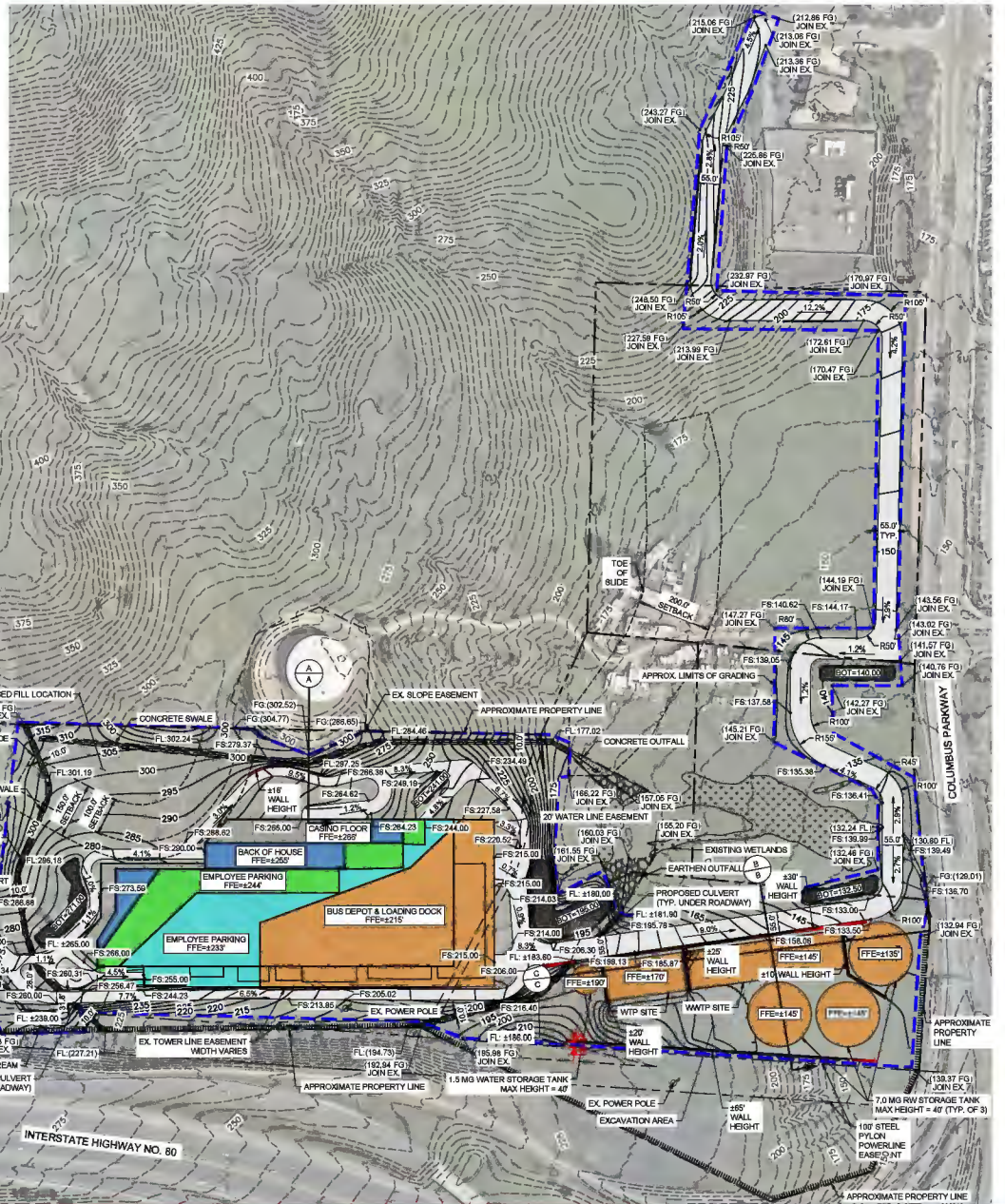
FILL: 855,000 CY
 NET: 151,000 CY (FILL)

NOTE: THE EARTHWORK QUANTITIES ABOVE ARE FOR PERMIT PURPOSES ONLY. THE CONTRACTOR IS NOT AUTHORIZED TO USE THE ESTIMATES HEREIN FOR BIDDING AND CONSTRUCTION PURPOSES WITHOUT THE EXPLICIT WRITTEN PERMISSION OF THE ENGINEER OF RECORD. NO REPRESENTATIONS OF SUCH QUANTITIES OR A BALANCED SITE CONDITION ARE MADE BY THE ENGINEER OF RECORD.

UNLESS EXPLICITLY STATED OTHERWISE HEREIN, THE ABOVE QUANTITIES ARE APPROXIMATE, IN PLACE VOLUMES CALCULATED FROM THE EXISTING GROUND TO THE PROPOSED FINISHED GRADE. EXISTING GROUND IS DEFINED BY THE CONTOURS AND SPOT GRADES ON THE AVAILABLE LEGIS TOPOGRAPHIC INFORMATION. PROPOSED FINISHED GRADE IS DEFINED AS THE FINAL GRADE AS INDICATED ON THE GRADING PLANS AS FINISHED SURFACE AND FINISHED FLOOR ELEVATIONS.

UNLESS EXPLICITLY STATED OTHERWISE HEREIN, THE ABOVE GRADING QUANTITIES HAVE NOT BEEN FACTORED TO ACCOUNT FOR CHANGES IN VOLUME DUE TO BULKING, CLEARING AND GRUBBING, SHRINKAGE, SUBSIDENCE, OVER-EXCAVATION AND RE-COMPACT, AND CONSTRUCTION METHODS, NOR DO THEY ACCOUNT FOR THE THICKNESS OF PAVEMENT SECTIONS, STORMWATER QUALITY MEDIA SECTIONS, UTILITY PIPES, TRENCHING AND BEDDING MATERIALS, BUILDING OR WALL FOOTINGS, BUILDING SLAB THICKNESSES AND UNDERLYING BASE OR SAND LAYERS, REUSE OF PULVERIZED MATERIALS THAT WILL UNDERLIE NEW PAVEMENTS, ETC.

ANY OVER-EXCAVATION AND RE-COMPACT DEPTHS AND VOLUMES, SHRINKAGE FACTORS, PAVEMENT SECTIONS, BUILDING PAD SECTIONS, AND BULKING FACTORS ARE BASED ON A SEPARATE GEOTECHNICAL REPORT. ANY BUILDING SLAB THICKNESSES ARE BASED ON THE SEPARATE BUILDING STRUCTURAL ENGINEERING PLANS. ANY UTILITY, STORMWATER MITIGATION, AND FOOTING SPILLS ARE BASED ON ESTIMATES PROVIDED BY THE OWNER OR CONTRACTOR.



LEGEND

- PROPERTY LINE
- - - EASEMENT LINE
- - - LIMITS OF GRADING
- - - PROPOSED BUILDING WALL AND OVERHANG
- - - EXISTING GROUND CONTOUR
- FS (100.00) EXISTING SPOT ELEVATION
- FS (100.00) PROPOSED SPOT ELEVATION
- (1.0%) EXISTING GROUND SLOPE
- (1.0%) PROPOSED GROUND SLOPE
- AMPHIL CONCRETE
- WETLAND AREA
- BIORETENTION AREA

PRELIMINARY EARTHWORK

CUT: 504,000 CY
OVERLAP: 85,000 CY
(OVER-EXCAVATION ACCOUNTS FOR 3' OF ADDITIONAL EXCAVATION UNDER THE BUILDING PAD, WHICH IS INCLUDED IN THE OVERALL CUT QUANTITY)

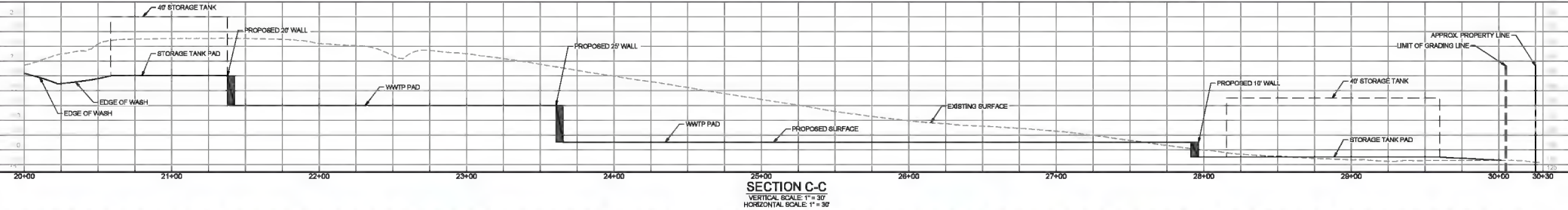
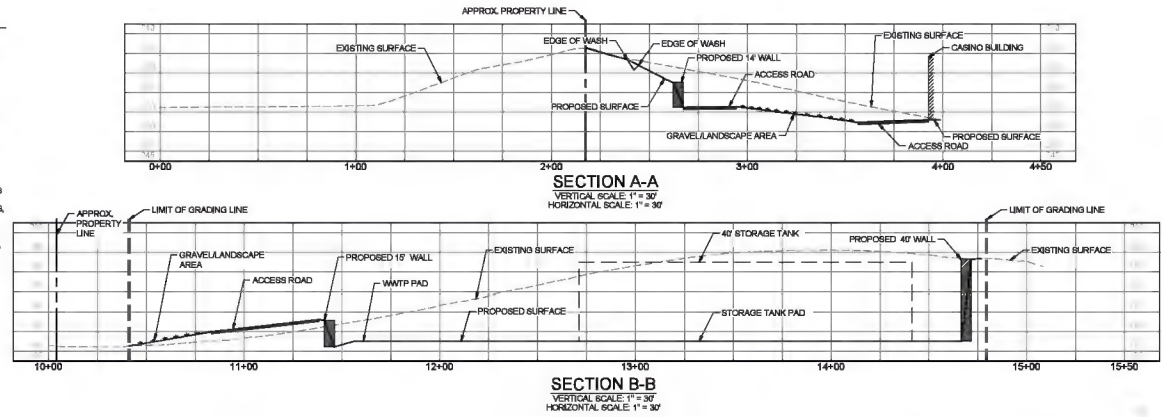
FILL: 885,000 CY
NET: 151,000 CY (FILL)

NOTE: THE EARTHWORK QUANTITIES ABOVE ARE FOR PERMIT PURPOSES ONLY. THE CONTRACTOR IS NOT AUTHORIZED TO USE THE ESTIMATES HEREIN FOR BIDDING AND CONSTRUCTION PURPOSES WITHOUT THE EXPLICIT WRITTEN PERMISSION OF THE ENGINEER OF RECORD. NO REPRESENTATIONS OF SUCH QUANTITIES OR A BALANCED SITE CONDITION ARE MADE BY THE ENGINEER OF RECORD.

UNLESS EXPLICITLY STATED OTHERWISE HEREIN, THE ABOVE QUANTITIES ARE APPROXIMATE, IN PLACE VOLUMES CALCULATED FROM THE EXISTING GROUND TO THE PROPOSED FINISHED GRADE. EXISTING GROUND IS DEFINED BY THE CONTOURS AND SPOT GRADES ON THE AVAILABLE USGS TOPOGRAPHIC INFORMATION. PROPOSED FINISHED GRADE IS DEFINED AS THE FINAL GRADE AS INDICATED ON THE GRADING PLANS/AS FINISHED GROUND, FINISHED SURFACE, AND FINISHED FLOOR ELEVATIONS.

UNLESS EXPLICITLY STATED OTHERWISE HEREIN, THE ABOVE GRADING QUANTITIES HAVE NOT BEEN FACTORED TO ACCOUNT FOR CHANGES IN VOLUME DUE TO BUILDING, CLEARING AND GRUBBING, SHRINKAGE, SUBSIDENCE, OVER-EXCAVATION AND RE-COMPACTION, AND CONSTRUCTION METHODS, NOR DO THEY ACCOUNT FOR THE THICKNESS OF PAVEMENT SECTIONS, STORMWATER QUALITY MEDIA SECTIONS, UTILITY PIPES, TRENCHING AND BEDDING MATERIALS, BUILDING OR WALL FOOTINGS, BUILDING SLAB THICKNESSES AND UNDERLYING BASE OR SAND LAYERS, REUSE OF PULVERIZED MATERIALS THAT WILL UNDERLIE NEW PAVEMENTS, ETC.

ANY OVER-EXCAVATION AND RE-COMPACTION DEPTHS AND VOLUMES, SHRINKAGE FACTORS, PAVEMENT SECTIONS, BUILDING PAD SECTIONS, AND BUILDING FACTORS ARE BASED ON A SEPARATE GEOTECHNICAL REPORT. ANY BUILDING SLAB THICKNESSES ARE BASED ON THE SEPARATE BUILDING STRUCTURAL ENGINEERING PLANS. ANY UTILITY, STORMWATER MITIGATION, AND FOOTING SPILLS ARE BASED ON ESTIMATES PROVIDED BY THE OWNER OR CONTRACTOR.



CONTINUATION ON SHEET 1

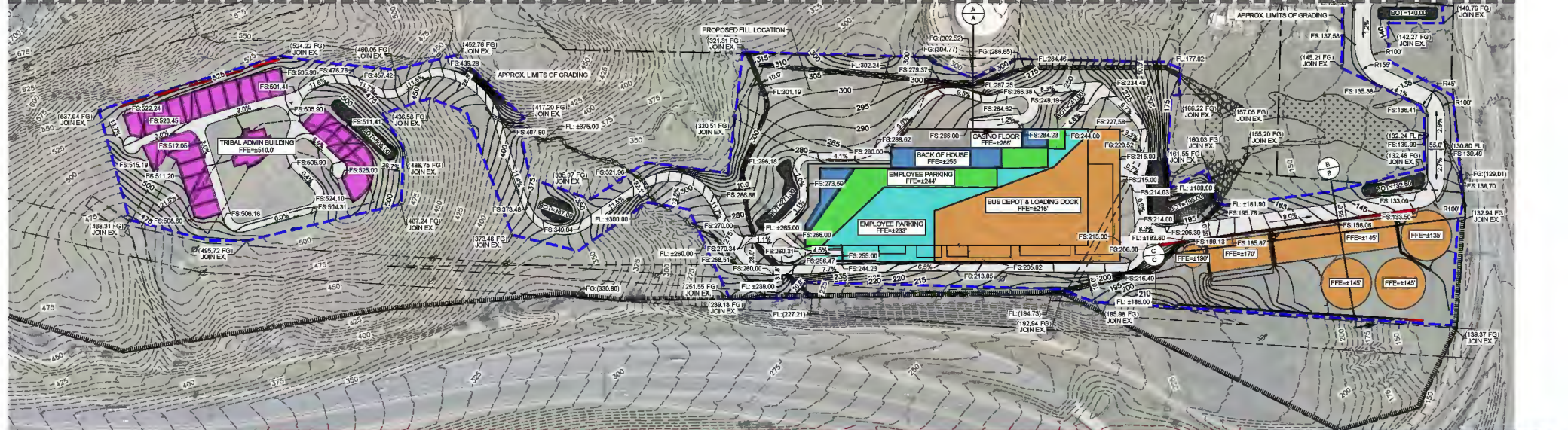


EXHIBIT C – REDUCED INTENSITY – SCHEMATIC GRADING

EXHIBIT D – NON-GAMING ALTERNATIVE – SCHEMATIC GRADING

- LEGEND**
- PROPERTY LINE
 - EASEMENT LINE
 - RETAINING WALL
 - GRADING LIMITS
 - 100' EXISTING GROUND CONTOUR
 - EXISTING SPOT ELEVATION
 - PROPOSED SPOT ELEVATION
 - EXISTING GROUND SLOPE
 - PROPOSED GROUND SLOPE
 - ASPHALT CONCRETE
 - WETLAND AREA
 - BIORETENTION AREA

PRELIMINARY EARTHWORK

CUT: 364,000 CY
 OVERLAY: 26,000 CY
 (OVEREXCAVATION ACCOUNTS FOR 9' OF ADDITIONAL EXCAVATION UNDER THE BUILDING PAD, WHICH IS INCLUDED IN THE OVERALL CUT QUANTITY)

FILL: 352,000 CY

NET: 42,000 CY (CUT)

NOTE: THE EARTHWORK QUANTITIES ABOVE ARE FOR PERMIT PURPOSES ONLY. THE CONTRACTOR IS NOT AUTHORIZED TO USE THE ESTIMATES HEREIN FOR BIDDING AND CONSTRUCTION PURPOSES WITHOUT THE EXPLICIT WRITTEN PERMISSION OF THE ENGINEER OF RECORD. NO REPRESENTATIONS OF SUCH QUANTITIES OR A BALANCED SITE CONDITION ARE MADE BY THE ENGINEER OF RECORD.

UNLESS EXPLICITLY STATED OTHERWISE HEREIN, THE ABOVE QUANTITIES ARE APPROXIMATE, IN PLACE VOLUMES CALCULATED FROM THE EXISTING GROUND TO THE PROPOSED FINISHED GRADE. EXISTING GROUND IS DEFINED BY THE CONTOURS AND SPOT GRADES ON THE BASE PLAN. PROPOSED FINISHED GRADE IS DEFINED AS THE FINAL GRADE AS INDICATED ON THE GRADING PLAN(S) AS FINISHED GROUND, FINISHED SURFACE, AND FINISHED FLOOR ELEVATIONS.

UNLESS EXPLICITLY STATED OTHERWISE HEREIN, THE ABOVE GRADING QUANTITIES HAVE NOT BEEN FACTORED TO ACCOUNT FOR CHANGES IN VOLUME DUE TO BUILDING CLEARING AND GRUBBING, SHRINKAGE, BIODEGRADATION AND RE-COMPACTATION, AND CONSTRUCTION METHODS. WORK DOES NOT ACCOUNT FOR THE THICKNESS OF PAVEMENT SECTIONS, STORMWATER QUALITY MEDIA SECTIONS, UTILITY PIPES, TRENCHING AND BEDDING MATERIALS, BUILDING OR WALL FOOTINGS, BUILDING SLAB THICKNESSES AND UNDERLYING BASE OR SAND LAYERS, REUSE OF PULVERIZED MATERIALS THAT WILL UNDERLIE NEW PAVEMENTS, ETC.

ANY OVEREXCAVATION AND RECOMPACTION DEPTHS AND VOLUMES, SHRINKAGE FACTORS, PAVEMENT SECTIONS, BUILDING PAD SECTIONS, AND BUILDING FACTORS ARE BASED ON A SEPARATE GEOTECHNICAL REPORT. ANY BUILDING SLAB THICKNESSES ARE BASED ON THE SEPARATE BUILDING STRUCTURAL ENGINEERING PLANS. ANY UTILITY, STORMWATER MITIGATION, AND FOOTING SPOILS ARE BASED ON ESTIMATES PROVIDED BY THE OWNER OR CONTRACTOR.

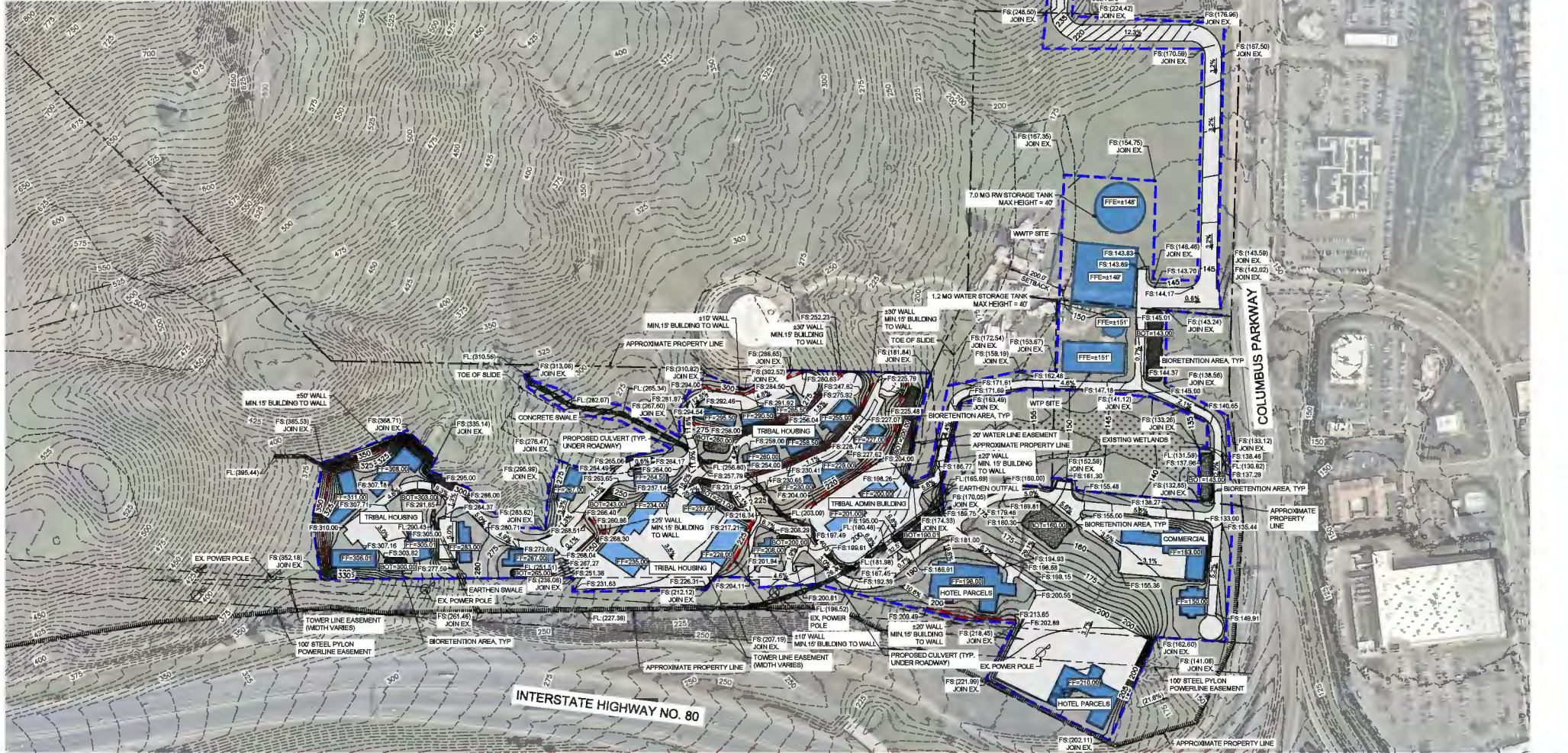













EXHIBIT E – PROPOSED PROJECT – STORMWATER MANAGEMENT

LEGEND

-  PROPERTY LINE
-  EASEMENT LINE
-  RETAINING WALL
-  PROPOSED BUILDING WALL AND OVER-HANG
-  DRAINAGE MANAGEMENT AREA BOUNDARY
-  SURFACE FLOW DIRECTION
-  ASPHALT CONCRETE
-  WETLAND AREA
-  BIORETENTION AREA
- DMA NUMBER**
- DMA AREA (SF)**

STORMWATER TREATMENT CALCULATIONS

Drainage Management Area	Total Area (SF)	Impervious Area (SF)	Pervious Area (SF)	Effective Impervious Area (SF)	Bioretention Area Required (SF)	Bioretention Area Provided (SF)
A	458000	185000	272000	213200	8528	11300
B	167500	40000	127500	52795	2110	6100
C	452000	190000	262000	210200	8408	10900
D	91200	28000	63200	24328	973	2400
E	693200	395000	297200	415720	16669	21500
F	460000	63000	397000	102795	4108	7250
G	258000	161900	107100	172510	6904	7500

Self Treating Area	Total Area (SF)
ST-1	2450000
ST-2	300000
ST-3	90000
ST-4	422000
ST-5	258000
ST-6	27000

Total Project Area	
148.74	Acres
6220000	SF

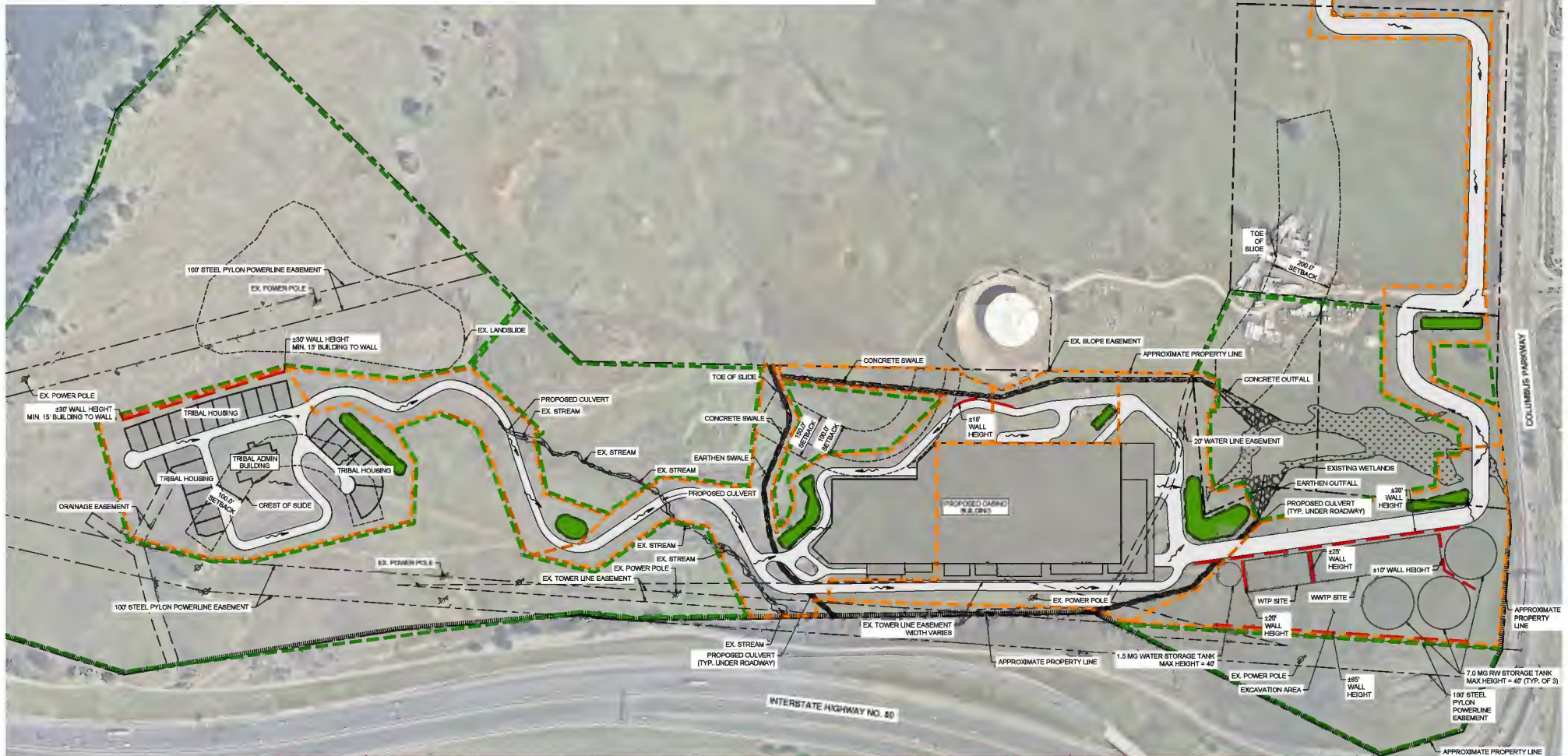




EXHIBIT F – REDUCED INTENSITY – STORMWATER MANAGEMENT



**EXHIBIT G – NON-GAMING ALTERNATIVE – STORMWATER
MANAGEMENT**

LEGEND

- PROPERTY LINE
- EASEMENT LINE
- RETAINING WALL
- DRAINAGE MANAGEMENT AREA BOUNDARY
- PROPOSED SURFACE FLOW DIRECTION
- ASPHALT CONCRETE
- WETLAND AREA
- BIORETENTION AREA
- DMA NUMBER
- DMA AREA (SF)

STORMWATER TREATMENT CALCULATIONS

Drainage Management Area	Total Area (SF)	Impervious Area (SF)	PerVIOUS Area (SF)	Effective Impervious Area (SF)	Bioretention Area Required (SF)	Bioretention Area Provided (SF)
A	96000	25000	73000	32100	1284	2800
B	79000	40000	39000	43900	1756	2800
C	51000	45000	46000	49600	1984	2900
D	90000	36000	54000	43800	1656	3300
E	179000	139000	40000	143000	5720	6400
F	92000	44000	48000	48800	1852	4000
G	163000	90000	73000	57300	3892	10800
H	68000	30000	38000	33800	1352	1600
I	160000	108000	52000	113900	4576	6200
J	400000	219000	181000	237100	9484	18900
K	148000	75000	73000	82100	3284	6000
L	435000	245400	209600	256380	10056	10900

Self Treating Area	Total Area (SF)
ST-1	4027000
ST-2	120000
ST-3	262000
ST-4	65000

Total Project Area	
DAE 24	Acres
4228000	97

